

JOB POSTING TITLE:

Assistant Professor or Associate Professor, Biionix (Bionic Implants, Materials and Interfaces) Cluster.

<https://jobs.ucf.edu/jobs/assistant-professor-or-associate-professor-biionix-bionic-implants-materials-and-interfaces-orlando-florida-united-states>

The Opportunity

The University of Central Florida (UCF) has established several interdisciplinary clusters of investigators to strengthen its academic offerings and research mission. In support of this effort, we are recruiting faculty in the area(s) of devices, materials science, cell biology, and tissue engineering within the field of biomedical and biomaterials science and regenerative medicine, and plan to hire one (1) tenure-track assistant professor or tenured associate professor for a position within the Biionix (Bionic Implants, Materials and Interfaces Cluster (<https://www.ucf.edu/research/prosthetic-interfaces-biomedical-engineering/> and <https://med.ucf.edu/biionix-cluster/>). This position has an anticipated start date within Fall 2025 or Spring 2026; however, this is negotiable.

This is an interdisciplinary position that will be expected to strengthen both the cluster and a chosen tenure home department and may include a combination of joint appointments. A strong advantage of this position is the ability of the candidate to choose multiple units from the university for their appointment. Both individual/interdisciplinary infrastructure and startup support will be provided with this new position.

The candidate will work alongside colleagues within UCF's College of Medicine (COM), the Department of Materials Science and Engineering (MSE), the Department of Mechanical and Aerospace Engineering (MAE), Limbitless Solutions as well as with clinicians and surgeons based within the nearby Veteran's Affairs Hospital, Nemours Children's Hospital and in the new UCF Lake Nona Medical Center. Candidates may choose their academic home department within one of the aforementioned COM, MSE, or MAE.

Increased human life expectancy, more active lifestyles, and higher patient expectations for improved health outcomes is leading to the development of innovative therapies that deliver an increasingly technology-driven standard of care. Into the future, human aging, trauma, pain, and disease present as substantial health concerns and to address these challenges, new therapies and devices are becoming smaller, faster and smarter. Advances in clinical treatment, as well as innovative technologies that monitor, maintain, and augment health and wellbeing, are being driven by interdisciplinary advances in the fields of materials science, medicine, and engineering; areas that form the foundation of Biionix Cluster research. Our mission is to innovate and advance the development of 'smart' biomaterials, both implantable and wearable, to innovate strategies for tissue repair and implant integration and in intelligent rehabilitation and improved wellbeing.

The ideal candidate will have experience in fundamental and applied research and work at the intersection of several areas, such as:

- Synthesis and fabrication of biomaterials and their use as tissue scaffolds, devices, or coatings, micro or nano applications, resorbable or non-resorbable
- Bioactive therapeutics, novel biostimulative scaffolds such as electroactive, mechano-stimulative or biofunctionalized gels or porous scaffolds, shape memory polymers
- Bioprinting and artificial microtissue development, disease modeling
- Biomaterials for drug or gene delivery, tissue protection, infection
- Cell-based therapies, tissue engineering, and biomaterials to augment repair and regeneration
- Soft biorobotics
- Biosensor development, biomonitoring, and brain-machine interfaces
- Biomaterials as imaging agents such as diagnostic agents, tissue-targeted or molecular imaging agents
- Biomaterial-based approaches to augment cell and tissue health in low Earth orbit as well as during long duration spaceflight.

The candidate will have research impact, as reflected in high-quality publications and the ability to build a funded and sustainable research program. All relevant technical areas will be considered. We are looking for a team player who can help bring together current campus efforts in materials science, medicine, and engineering.

UCF is one of the nation's largest universities with a diverse student body of more than 70,000 students and has grown substantially in size, quality, diversity, and reputation. Today, the university offers more than 200 degree programs. In 2019, UCF was officially recognized as a Hispanic Serving Institution (HSI) by the US Department of Education and a "Green College" by the Princeton Review for our efforts in sustainability and environmental responsibility. UCF's students represent all 50 states and over 120 countries. UCF is in a centralized location that is 30 minutes to Walt Disney World and Universal Orlando and 60 minutes to the beach. UCF has 16 sports teams, including football, soccer/fútbol, tennis, volleyball, and 600+ cultural, academic and social student clubs and organizations all led by faculty mentors. In addition, UCF has several associations for faculty and staff, among them, the Black Faculty and Staff Association (BFSA), the Latino Faculty and Staff Association (LaFaSA), the PRIDE Faculty and Staff Association, and the Faculty Excellence Center for Success of Women Faculty. UCF received the 2019 Higher Education Excellence in Diversity (HEED) Award from INSIGHT Into Diversity magazine, which recognizes U.S. colleges and universities that demonstrate an outstanding commitment to diversity and inclusion.

The Carnegie Foundation has classified UCF as a R1 Doctoral University for its high research activity and community engagement. This past fiscal year, UCF brought in a

record amount of research funding in excess of \$210M. For the fifth consecutive year, UCF has been recognized among the nation's most innovative universities according to U.S. News & World Report while Kiplinger's and The Princeton Review have ranked UCF as one of the nation's best values for a college education.

UCF is an economic engine, attracting and supporting industries vital to the region's future while providing students with real-world experiences that help them succeed after graduation. UCF's Orlando location also puts it at the center of the Florida High Tech Corridor. The corridor has an excellent industrial base that includes software, defense, space, simulation and training, and a world-renowned entertainment industry. Adjacent to UCF is a thriving research park that conducts over \$2 billion in funded research, hosting more than 100 high-technology companies and UCF's School of Modeling, Simulation, and Training. Great weather, easy access to the seashore, one of the largest convention centers in the nation, and one of the world's best airports are just a few features that make Orlando an ideal location. We encourage you to learn more about UCF at <http://www.ucf.edu/faculty>.

The Bionix Cluster consists of 16 core and secondary faculty members who together mentor 39 undergraduate, 38 graduate and medical students and 5 post-doctoral fellows. The core of the Cluster is based within the Burnett School of Biomedical Sciences in Lake Nona, which offers state-of-the-art laboratory facilities at the UCF Medical School. The school is recognized as an Academic Health Sciences Campus and is a founding member of the growing Medical City, which is a multi-billion-dollar investment dedicated to innovation in health and wellness. This extensive biomedical complex includes the UCF Burnett School of Biomedical Science research building, UCF College of Medicine academic building, the UCF Cancer Center, UCF outpatient clinics, the new UCF Lake Nona Medical Center, University of Florida's College of Pharmacy, Orlando Veterans Administration Medical Center & Nemours Children's Hospital. Together they provide a hub for biomedical innovation that is contributing to transform Orlando into a global destination for health care, research, and biomedical innovation and education.

Minimum Qualifications

A Ph.D. terminal degree, or foreign degree equivalent from an accredited institution in an area appropriate to the cluster by the time of appointment.

The selected candidate must also have a record of high impact research (or potential for high impact research) related to devices, materials science, cell biology, and tissue engineering within the field of biomedical and biomaterials science and regenerative medicine, as demonstrated by a strong and consistent scholarly and/or funding record from the NIH, NSF or other equivalent agencies.

Preferred Qualifications:

- A history of working with teams, especially teams that span multiple disciplines, is a strongly preferred qualification.

- Experience in working with both *in vitro* and *in vivo* models.
- Research skills and experience in the field of musculoskeletal science.

Additional Application Materials Required:

UCF requires all applications and supporting documents be submitted electronically through the Human Resources employment opportunities website, <https://www.ucf.edu/jobs/>.

UCF has a diverse student body and community, and we are committed to meeting the needs of this community. Please tell us about your approach and experience, in the context of a faculty-student setting and as a colleague, meeting the needs of a diverse community. In addition to the online application, interested candidates must attach the following materials to their application:

- 1) the above-mentioned diversity statement,
- 2) a cover letter,
- 3) curriculum vitae,
- 4) teaching statement,
- 5) research statement, and
- 6) contact information for three professional references (include email address).

In the cover letter candidates must address their background in musculoskeletal science and identify the department(s) for their potential tenure home and the joint appointments they would desire.

NOTE: Please have all documents ready when applying so they can be simultaneously uploaded. Once the online submission process is finalized, the system does not allow applicants to submit additional documents later.

Questions regarding this search can be directed to Nayade Ramirez (Nayade.Ramirez@ucf.edu) or Maria Fernandez (Maria.Fernandez@ucf.edu).

Job Close Date:

Open until filled.

Note to applicants: Please keep in mind that a job posted as ‘*Open until filled*’ may close at any time without notice. As such, we encourage you to submit your application and all required documentation as quickly as possible to ensure consideration for the posted position.

Are you ready to unleash YOUR potential?

As a next-generation public research university and Forbes-ranked top employer in Florida, we are a community of thinkers, doers, creators, innovators, healers, and leaders striving to

create broader prosperity and help shape a better future. No matter what your role is, when you join Knight Nation, you'll play an integral role at one of the most impactful universities in the country. You'll be met with opportunities to connect and collaborate with talented faculty, staff, and students across 13 colleges and multiple campuses, engaging in impactful work that makes a positive difference. Your time at UCF will provide you with many meaningful opportunities to grow, you'll work alongside talented colleagues on complex projects that will challenge you and help you gain new skills, and you'll have countless rewarding experiences that go well beyond a paycheck.

Working at UCF has its perks! UCF offers:

- Benefit packages, including Medical, Dental, Vision, Life Insurance, Flexible Spending, and Employee Assistance Program.
- Paid time off, including annual (12-month faculty) and sick time off and paid holidays.
- Retirement savings options.
- Employee discounts, including tickets to many Orlando attractions.
- Education assistance.
- Flexible work environment.
- And more...For more benefits information, view the UCF Employee Benefits Guide [click here](#).

Unless explicitly stated on the job posting, it is UCF's expectation that an employee of UCF will reside in Florida as of the date the employment begins.

Additional Requirements related to Research Positions:

Pursuant to Florida State Statute 1010.35, prior to offering employment to certain individuals in research-related positions, UCF is required to conduct additional screening. Applicants subject to additional screening include any citizen of a foreign country who is not a permanent resident of the U.S., or who is a citizen or permanent resident but is affiliated with or has had at least 1 year of education, employment, or training in China, Cuba, Iran, Russia, North Korea, Syria, or Venezuela.

The additional screening requirements only apply to research-related positions, including, but not limited to faculty, graduate positions, individuals compensated by research grants or contract funds, post-doctoral positions, undergraduate positions, visiting assistant professors, and visiting research associates.