

Position Information

Position Details

Job Number:	500862
Class Title:	Assistant Professor or Associate Professor, Biionix (Bionic Implants, Materials and Interfaces)
Administrative Title:	No Administrative Function

Job Description

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 materials and cell biology within the field of musculoskeletal science and orthopaedics, and plan to hire (1) tenure-track assistant professor or tenured associate professor for 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 of December x, 2022, 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), Department of Materials Science and Engineering (MSE), 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 home department within one of the aforementioned areas or an area appropriate to their background and expertise.

Musculoskeletal disease is considered one of the biggest health concerns for the next century and new therapies are becoming smaller, faster and smarter. Advances in orthopaedic clinical treatment 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 biopolymers and their use as musculoskeletal tissue scaffolds, devices, or coatings, micro or nano applications, resorbable or non-resorbable
- Injectable polymer 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
- Biopolymers for drug or gene delivery, tissue protection, infection

- Cell-based therapies, tissue engineering to augment repair and regeneration
- Soft biorobotics
- Biosensor development and brain-machine interfaces
- Biopolymers as imaging agents such as diagnostic agents, tissue-targeted or molecular imaging agents

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 musculoskeletal science and orthopaedics.

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 Biionix Cluster consists of 15 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.

Position 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 materials and cell biology within the field of musculoskeletal science, as demonstrated by a strong and consistent scholarly and/or funding record from the NIH, NSF or other equivalent agencies.

Preferences

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 is also preferred.

Additional Application Materials Required

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 reference (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 application documents ready when applying so they can be attached at that time. Once the online submission process is finalized, the system does not allow applicants to submit additional documents at a later date.

UCF requires all applications and supporting documents to be submitted electronically through the Human Resources website, www.ucf.edu/jobs/. No paper or emailed applications or materials will be considered.

This position has an anticipated start date of December x, 2022. Review of applications will begin immediately and continue until the position is filled.

Questions regarding this search can be directed to Dr. Melanie Coathup, at melanie.coathup@ucf.edu.

Equal Employment Opportunity Statement

As an equal opportunity/affirmative action employer, UCF encourages all qualified applicants to apply, including women, veterans, individuals with disabilities, and members of traditionally underrepresented populations. UCF's Equal Opportunity Statement can be viewed at: <http://www.oie.ucf.edu/documents/PresidentsStatement.pdf>. As a Florida public university, UCF makes all application materials and selection procedures available to the public upon request.