



DEPARTMENT OF BIOMEDICAL ENGINEERING
FACULTY POSITION IN **ARTHRITIS RESEARCH**

Cleveland Clinic's Department of Biomedical Engineering (BME) in collaboration with the Department of Orthopaedic Surgery, invites applications for a faculty position to lead a cutting-edge research program focused on ***biology or therapeutics of arthritis***. Areas of particular interest, include, but are not limited to cellular and molecular mechanisms of joint disease in humans and/or animal models, inflammation, aging and microbiome as they relate to OA, biochemical and genetic biomarkers for diagnosing and predicting disease progression, and identifying therapeutic targets and drug discovery.

This hire will be expected to build an independent, yet highly collaborative, extramurally funded research program at the frontiers of joint disease. The primary appointment will be within the Department of Biomedical Engineering with a secondary appointment in the Department of Orthopaedics. The recruited research program is expected to complement existing strong research programs spanning both departments, including advanced musculoskeletal imaging, arthroplasty, sports, shoulder, computational modeling, extracellular matrix and proteases and clinical research including patient reported outcomes.

Cleveland Clinic has operated for over 100 years on the principle of bringing innovative teams together to advance care for patients. Today, we are a world leader in science-based healthcare. The Department of Biomedical Engineering (BME) is situated within Cleveland Clinic Research, which is home to the organization's basic, translational and clinical research activities (<https://www.lerner.ccf.org/>). With total annual research funding of \$479 million in 2025, over 1,800 people (including about 235 principal investigators and 650 trainees) participate in research programs focusing on heart and vascular, cancer, brain, eye, metabolic, microbiome, musculoskeletal, inflammatory and fibrotic diseases. We are currently constructing over 400,000 square feet of new research space, housing state-of-the-art laboratories, technologies and computational resources. In addition, Cleveland Clinic's global footprint provides a wealth of resources to support research throughout the enterprise, including at our locations in Northeast Ohio, Florida, London and Abu Dhabi.

Exceptional core services (<https://www.lerner.ccf.org/cores/>) provide support in microscopy and other imaging methods; genomics and transcriptomics; proteomics and metabolomics; biostatistics and bioinformatics; gnotobiotic facility & others. Other state-of-the-art resources and facilities include the Global Center for Pathogen & Human Health Research, the Center for Therapeutics Discovery, which operates like an in-house pharmaceutical company and is one of the largest drug discovery initiatives in Northeast Ohio, the institution's Biosafety Level 3 (BSL-3) research laboratory dedicated to studying highly pathogenic infectious diseases, and healthcare's first on-premises IBM Quantum System One supercomputer.

Cleveland Clinic's clinical departments of Orthopaedics and Rheumatology are ranked among the top in the US. As a result, in addition to robust laboratory resources musculoskeletal scientists have access to strong clinical collaborators, data and samples from thousands of patients receiving musculoskeletal care annually. Institutional data and computing infrastructure integrate system-wide demographic, socioeconomic, disease, surgical, treatment, imaging and patient experience data, as well as healthcare utilization and cost. In 2022, a central biorepository was founded that enables systematic prospective banking of synovial fluid, fat, cartilage, and bone from patients undergoing surgery for knee and shoulder conditions. Our Musculoskeletal Research Center brings together our robust musculoskeletal research

community and supports programmatic initiatives including the Cleveland Clinic Center of Excellence in Osteoarthritis and the Arthritis Foundation (AF) Osteoarthritis Imaging Center.

Although not required, teaching opportunities are available through our Department of Molecular Medicine and the Cleveland Clinic Lerner College of Medicine (CCLCM) of Case Western Reserve University (CWRU). Collaborations and appointments are possible at one of our neighboring academic (CWRU, Cleveland State University, Kent State University, University of Akron) or federal institutions (Louis Stokes Cleveland VA Medical Center, NASA Glenn Research Center). A full secondary faculty appointment and teaching opportunities are available in the CWRU Department of Biomedical Engineering through the CC-CWRU BME Alliance (<https://engineering.case.edu/ebme/about/alliance>). These arrangements provide access to a diverse portfolio of graduate and undergraduate trainees.

We desire an individual with proven skills in grant writing, leadership, organization, innovation, and interpersonal communication. Competitive candidates will hold a doctorate in an appropriate scientific or medical discipline, have a publication record in high-quality peer-reviewed journals, demonstrate established or high potential for funding and be enthusiastic about translation of their research. Applications will be considered at all faculty ranks (Assistant, Associate, and Full).

A generous start-up package is available to support this recruitment, including financial resources for salary, operations, and equipment commensurate with the rank of the individual. Ongoing financial support and commitment beyond the start-up period is provided for all Cleveland Clinic Research faculty.

Salary range: \$135,000 - \$309,000

The pay range displayed on this job posting reflects the anticipated range for new hires. A successful candidate's actual compensation will be determined after taking various factors into consideration such as the candidate's work history, experience, skill set, and board certification. This is not inclusive of the value of Cleveland Clinic's benefits package, which includes among other benefits, healthcare/dental/vision, and retirement.

Interested applicants should submit:

- A letter of application
- Complete curriculum vitae
- 1- to 2-page research plan and statement of current and future research goals
- Contact details of three references

Send (preferably by email) the above materials and direct any inquiries to:

Kathleen Derwin, PhD

Chair, Arthritis Research Search Committee

Department of Biomedical Engineering / ND20

Cleveland Clinic

9500 Euclid Avenue

Cleveland, OH 44195

E-mail: BMEJointDisease@ccf.org Phone: 216-408-7930

The Cleveland Clinic is a not-for-profit, multi-specialty academic medical center that integrates clinical and hospital care with research and education. Cleveland Clinic is nationally ranked and globally recognized as a world leader. More information about the Cleveland Clinic and its relevant institutes, departments and resources is provided at <https://my.clevelandclinic.org/>.

Cleveland Clinic is pleased to be an equal employment opportunity employer.

Smoke/drug free environment.