CUHK BME – CNRM Joint Seminar

Reverse Engineering Fat-cartilage Crosstalk in Osteoarthritis



Kelsey H. Collins, PhD
Assistant Professor
Director, Laboratory for Musculoskeletal Crosstalk
Department of Orthopaedic Surgery
University of California San Francisco

Date : 4 November 2026 (Wednesday)
Time : 10:00 am
Venue : Room 1122, William M W Mong Engineering Building, CUHK

Abstract

Adipose tissue is increasingly recognized as an active regulator of musculoskeletal health, yet its contribution to pain remains incompletely understood. This talk will explore how local and systemic adipose tissues shape musculoskeletal pain through metabolic, inflammatory, and tissue-specific mechanisms, highlighting emerging opportunities to target adipose–musculoskeletal crosstalk to improve outcomes in osteoarthritis and related conditions.

Biography

Dr. Kelsey Collins is an Assistant Professor in the Departments of Orthopaedic Surgery and Anatomy at University of California San Francisco, USA. Her lab is focused on defining novel mechanisms of fat interorgan crosstalk using osteoarthritis, obesity, aging and knee pain as model systems. Most recently they have demonstrated a causative mechanistic role for fat secreted factors in the onset and progression of knee pain. Dr. Collins and her team leveraging state-of-the-art interdisciplinary approaches in bioengineering, endocrinology, stem cell biology, and physiology to understand healthy aging and reimagine treatment options for musculoskeletal pain.

***** ALL ARE WELCOME *****

For enquiries, please contact Ms. Joyce Chan, Department of Biomedical Engineering at 3943 8278