

Cell and growth factor control of intervertebral disc health and disease



Professor Hicham Drissi

Department of Orthopaedics

School of Medicine

Emory University

Date : 23 June 2026 (Tuesday)
Time : 10:30 am
Venue : Room 408, William M W Mong Engineering Building, CUHK

Abstract

Degenerative disc disease account for a significant percentage of back pain, which is a major global burden leading to significant decrease in quality of life. We have explored the use of pluripotent stem cells to derive disc tissue as a potential regenerative strategy. Conversely, we explored the effects of components of the platelet rich plasma in halting disc degeneration. Our findings explore mechanisms underlying nucleus pulposus homeostasis in the context of aging and disease. We will discuss the potential for cell based versus small molecule / factor based minimal interventions to preserve disc structure during aging.

Biography

Hicham Drissi is a Professor of Orthopaedics and Professor of Cell Biology at Emory University. He also serves as the Vice Chair for Orthopaedic Research in the Department of Orthopaedics and is the Director of the Emory Musculoskeletal Research Center at Emory University School of Medicine. He is also currently serving as the President of the Orthopaedic Research Society. Hicham has an established track record in defining regulatory mechanisms that govern the growth and differentiation of various skeletal tissues including bone, cartilage, and more recently intervertebral disc. A long standing and current focus of his laboratory has been geared towards identifying treatment modalities to accelerate fracture healing, but also solutions for inflammatory joint diseases such as osteoarthritis and post-traumatic osteoarthritis. Finally, Hicham's laboratory is actively working on methods to halt degenerative disc disease, which accounts for a large population of Americans that suffer from back pain. His work in these areas is currently supported by extramural funding. He has published over 180 peer reviewed manuscripts and has served as mentor to a multitude of students, fellow, junior faculty both clinicians and research scientists.

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

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