

Page Morton Hunter Distinguished Seminar Series



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“Skeletal progenitors in orthopaedic tissues and diseases”

Dr. Ling Qin, Ph.D.

Dr. Ling Qin is a Professor of Orthopaedic Surgery and Co-Director of PCMD Histology Core at the University of Pennsylvania. She serves as an Associate Editor for the Journal of Bone and Mineral Research and was honored as a Fellow of the American Society of Bone and Mineral Research (ASBMR) in 2018 and as a Fellow of International Orthopaedic Research (FIOR) in 2019. She was a standing member of NIH SBDD (Skeletal Biology Development & Disease) study section from 2019 to 2023. She served as the Chair of ORS Scientific Program Committee in 2024. To date, she has published 140 peer-reviewed research articles, reviewers, and book chapters in journals such as Cell, Sci Transl Med, J Clin Invest, PNAS, Elife, JBMR, Arthritis Rheumatol, Nature, etc. The overall goal of her research is to combine studies on fundamental mechanisms of skeletal cell function with translational medicine approaches to treat skeletal diseases. Her research program is dedicated to bone and joint tissue metabolism.



Skeletal stem cells were first discovered in bone marrow during the 1970s. Since then, techniques such as cell culture and transplantation have been employed to explore a variety of other skeletal tissues, including periosteum, growth plates, synovium, and muscle, to identify site-specific stem cells. Decades of research have revealed a diverse range of progenitor cells from self-renewing stem cells to lineage-committed progenitors. With the advancement of sequencing techniques and mouse models, I will summarize the achievements made in this field over recent years from my group and others, with a special focus on stem and progenitors in the following orthopaedic tissues: bone, muscle, meniscus, synovium and joint fat pad. Moreover, their contribution to orthopaedic diseases, such as osteoporosis, fracture repair, and osteoarthritis will be discussed.

DATE: March 13, 2025 at 3:30 p.m.

LOCATION: MUSC Baruch Auditorium - 284 Calhoun St. Charleston, SC 29401

(Zoom link: <https://clemson.zoom.us/j/92584740171>)



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