



Department of Anatomy & Cell Biology



**Insights into mechanobiology
of bone adaptation and
regeneration**

Dr. Bettina Willie

Associate Professor

Pediatric Surgery - McGill University

Investigator

Montreal Shriners Hospital for Children

Dr. Willie's research focuses on the importance of the mechanical environment in bone for adaptation, regeneration, and aging, and involves *in vitro*, *in vivo*, and *in silico* studies to understand the mechanism(s) responsible for alterations in the response of the skeleton to mechanical strain. Dr. Willie investigates the regulation of modeling and remodeling processes by mechanical loading, and the role of osteoblastic cells (osteoblasts and osteocytes) in the mechanosensation processes, since these cells comprise the primary sensor and effector cells of mechanical cues. Her work is centered on unravelling the important cellular and mechanical factors regulating mechanoreception in bone cells, to improve targeted therapies for treating and preventing bone loss and delayed bone healing.

Wednesday, September 14, 2016

11:30 am

**Strathcona Anatomy Building
3640 University Street
Room 2/36**

www.mcgill.ca/anatomy/seminars
anatomysec.med@mcgill.ca