

**Dr. Michael J. Monument**

*“rhBMP-2 in bone sarcoma surgery: Does BMP-2 signalling in mouse models of osteosarcoma influence tumour biology”*

Osteosarcoma is an aggressive bone cancer (Terry Fox cancer), which primarily affects children and young adults. Curative treatment typically involves massive bone resections and complex limb reconstructions ("limb salvage surgery"). Bone healing is impaired in these patients, contributing to devastating complications such as infection, delayed bone healing and revision surgeries. Bone Morphogenetic Protein-2 (BMP-2) is a Health Canada approved bone healing stimulant approved for use in spine and trauma surgeries; however, its use is prohibited in sarcoma surgery due to controversial safety concerns about cancer promoting side effects. In this study, we are using established mouse models of osteosarcoma to evaluate whether this important bone healing augment may be safe to use in bone sarcoma surgeries.