

Laboratory: Molecular Physiology of Bone

Speaker: Michaela Tencerová

Topic: Bone marrow adipose tissue: an overlooked fat depot with different functions

Annotation:

Increased bone marrow adiposity is associated with bone fragility in metabolic diseases. Bone marrow adipose tissue (BMAT) originates from bone marrow mesenchymal stem cells (BMSCs), which can differentiate into adipocytes, osteoblasts or chondrocytes. Our recent findings reported that BMAT acts as a unique fat depot that does not develop insulin resistance in obesity compared to peripheral adipose. Our research is focused on identifying metabolic pathways contributing to senescent phenotype in BMSCs and modulate their function to improve bone and fat metabolism in animal models of metabolic diseases.