

Dr. Matt Stern Abstract

Research interests:

- 1) Developing and characterizing biomaterials that facilitate the regeneration and/or engineering of skeletal muscle tissue.
- 2) Producing novel three-dimensional culture systems for the study of stem cell differentiation.
- 3) Improving the efficiency of adipose-derived mesenchymal stem cell differentiation into lineages such as muscle and bone.
- 4) Utilizing tools such as Bioprinting and substrate stretching to understand how manipulating the biochemical and physical stimuli received by stem cells influences their developmental potency.
- 5) Using melanoma cell lines as a model that allows students in the cell biology course to learn methods in cell and molecular biology while contributing to research related to cancer cell epigenetics.