Project Title	Development of a muscle-fibre tracking algorithm

Supervisor   Dr David Labonte

Theme(s)   Biomechanics and Mechanobiology
Computational and Theoretical Modelling

Project Description   µCT-data of muscular tissue are almost ubiquitous, but their utility for quantitative research is limited, as automated analysis of key parameters such as muscle fibre length, radius, and pennation angle is only available in expensive commercial software or needs to be done by hand.

In this project, we aim to address this problem by developing an algorithm which enables automated tracking of muscle fibres, so extracting key parameters from segmented ÂµCT scans of insect heads.

Some basic knowledge in python is required for this project.