PROJECT RESUME

Musculoskeletal biology and biomechanics plays a crucial role in the anatomical sciences. Knowledge of the musculoskeletal system is of utmost importance to the healthcare practitioners and workers of the future, as they treat the growing prevalence of diseases like osteoporosis and osteoarthritis. To advance this field embracing new technologies will be key, and the field of imaging and measurement will be central for this progress. The anatomical sciences in particular depend so strongly on observation and measurement of biological phenomena. This project will develop the optimal way to use a new kind of imaging, called Light Sheet Florescence Microscopy (LSFM) for bone and cartilage tissues. This will help use to use these techniques to study skeletal growth and development as well as disease such as osteoporosis and osteoarthritis (OA). OA is of particular interest to our group, in terms of the importance of bone and cartilage interactions during that disease.

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