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Marie Skłodowska-Curie Actions

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Postdoctoral Fellowships



CALL FOR APPLICATIONS 2025 – FELLOWS

Supervisor	Christine Chappard
Supervisor page	https://www.lib.upmc.fr/page-biblio-personnelle/?pers_id=807
Host Institution	National Institute for Health and Medical Research (Inserm) https://www.inserm.fr/en/home/
Research Lab	Biomedical Imaging Lab https://www.lib.upmc.fr/about-lib/?lang=en
Research Team	Bone mechanical quality and ultrasound characterization (BQ) https://www.lib.upmc.fr/team-1-determinant-of-bone-mechanical-status-dbms/?lang=en

Project Title

Three dimensional texture analysis from echo-B ultrasound images applied for muscles and tendons.

Project Description

Muscles and tendons are anisotropic structures that can be altered by various pathological processes. Our objective is to develop quantitative analyses based on three-dimensional B-mode ultrasound acquisitions. The input data will consist of muscle and tendon segmentations, combined with internal textural analyses derived from the speckle patterns of ultrasound images. This process could potentially be automated using artificial intelligence approaches to enhance physicians' diagnostic accuracy.

Keywords

echo-B ultrasound, texture analysis, deep learning

Description of the Host Research Lab

The Biomedical Imaging Lab (LIB – Laboratoire d'Imagerie Biomédicale) specializes in fundamental research and applications of biomedical imaging methods for morphologic, functional and molecular exploration of small animals and humans. The main investigation foci are among the twenty-first century public health priorities: bone, cancer, cardiovascular and neurological diseases. We develop new diagnosis and treatment methodologies in our main field of investigation, including bright light microscopy, ultrasound, MRI, CT and SPECT-PET.

To submit your application, please send an email with the required documents to
msca-pf@sorbonne-universite.fr