



**MSCA**

Marie Skłodowska-Curie Actions

*Developing talents,  
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# Postdoctoral Fellowships



## CALL FOR APPLICATIONS 2025 – FELLOWS

<b>Supervisor</b>	Quentin Grimal
<b>Supervisor page</b>	<a href="https://www.lib.upmc.fr/~qgrimal/">https://www.lib.upmc.fr/~qgrimal/</a>
<b>Host Institution</b>	Sorbonne Université <a href="https://www.sorbonne-universite.fr/en">https://www.sorbonne-universite.fr/en</a>
<b>Research Lab</b>	Biomedical Imaging Lab <a href="https://www.lib.upmc.fr/about-lib/?lang=en">https://www.lib.upmc.fr/about-lib/?lang=en</a>
<b>Research Team</b>	Bone mechanical quality and ultrasound characterization (BQ) <a href="https://www.lib.upmc.fr/team-1-determinant-of-bone-mechanical-status-dbms/?lang=en">https://www.lib.upmc.fr/team-1-determinant-of-bone-mechanical-status-dbms/?lang=en</a>

### Project Title

Quantitative ultrasound imaging of neuromuscular coupling and in-situ muscle mechanics

### Project Description

Neuromuscular diseases affecting muscles and/or their innervation represent a significant public health concern. A major challenge in neuromuscular research is estimating the number, type (slow- vs. fast-type), or ratio of functional motor units in a muscle. This project leverages high-frame-rate ultrasound imaging coupled to biomechanical models of muscle twitches to quantify tissue motion in order to characterize motor unit properties.

### Keywords

muscle, ultrasound, biomechanics

### 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](mailto:msca-pf@sorbonne-universite.fr)