



CALL FOR CANDIDATES

International PhD position in Tendon Biomechanics KU Leuven (Belgium) - Nantes Université (France)

The Human Movement Biomechanics Research Group (HMBRG - [KU Leuven](#)) and the laboratory “Motricité, Interactions, Performance” (MIP – UR4334 – [Nantes Université](#)) are recruiting a PhD candidate to work on a research project focused on tendon mechanics within the framework of an international collaboration between Belgium and France.

Project description

Tendons are composed of collagen fascicles bound together by a highly specialized interfascicular matrix that enables relative sliding between fascicles when the tendon is strained. Non-uniform tendon motions are thought to play a central role in tendon mechanical behavior and adaptation. Recent evidence suggests that tendon motions are an important indicator of tendon health, although their precise functional role remain poorly understood. The main objective of this project is to better understand the mechanical specialization of tendons. Ultimately, this work aims to provide new insights for the prevention and management of tendon disorders.

The project combines: *in vivo* ultrasound imaging; *ex vivo* biological experimentation; tendon mechanical characterization; advanced tendon motions analysis techniques; structural and compositional tendon analyses.

Research Environment

The PhD candidate will work within two internationally recognized research groups in biomechanics and musculoskeletal research:

- **[KU Leuven – Human Movement Biomechanics Research Group \(HMBRG\)](#)**. [KU Leuven](#) is one of Europe’s leading universities and provides a highly international research environment with state-of-the-art facilities dedicated to biomechanics and musculoskeletal function. The [HMBRG](#) brings together PhD candidates, postdoctoral researchers, clinicians and senior academics working on topics related to tendon biomechanics, movement analysis, musculoskeletal modeling, and sports biomechanics. The candidate will benefit from a highly collaborative and multidisciplinary environment with strong expertise in experimental biomechanics.
- **[Nantes Université – Laboratory “Motricité, Interactions, Performance” \(MIP\)](#)**. The [MIP](#) conducts research in biomechanics, neuro-motor control and movement sciences. The laboratory hosts a dynamic community of researchers and maintains close collaborations with clinical (Nantes Hospital) and sports medicine partners (private practice physiotherapists). The candidate will evolve in a stimulating interdisciplinary environment combining fundamental and applied approaches, with recognized expertise in tendon biomechanics and ultrasound imaging.

Candidate Profile

Applicants should:

- hold (or be close to obtaining) a Master's degree in biomechanics, movement sciences, sport sciences, biomedical engineering, biomedical sciences or a related field;
- demonstrate strong interest in musculoskeletal biomechanics and tendon research;
- have experience in research methodology and quantitative data analysis;
- possess excellent communication and scientific writing skills in English;

Experience in one or several of the following areas would be considered an asset: ultrasound imaging, biomechanics experimentation, tendon biology or histology analysis, laboratory techniques related to tissue characterization, signal or image processing, programming (e.g., MATLAB, Python), statistics and data analysis.

The successful candidate should be motivated to work in an international and interdisciplinary research environment and **be willing to relocate between Belgium and France during the PhD.**

What We Offer

- A fully funded PhD position in an international collaborative environment;
- A 42-months doctoral project jointly conducted between Belgium and France;
- Access to state-of-the-art biomechanics and imaging facilities;
- Training in advanced experimental and analytical techniques;
- Opportunities to present research at international conferences and publish in leading scientific journals;
- A stimulating and supportive scientific environment.

Salary and employment conditions will follow KU Leuven and/or Nantes Université doctoral funding regulations and include social security coverage and employee benefits.

Supervision

The PhD candidate will be jointly supervised by researchers from KU Leuven and Nantes Université: Pr. Vanwanseele, Pr. Nordez and Dr. Crouzier.

Practical Information

Expected Start Date: October 2026 (ideally).

Duration: 42 months.

Location: Leuven (Belgium) and Nantes (France) alternatively.

Application Procedure

Applications should include: a detailed CV, a motivation letter, academic transcripts, contact information for 2 references. Applications should be sent to: marion.crouzier@univ-nantes.fr. Application Deadline is June, 15th 2026.

Shortlisted candidates will be invited for an interview.