

Chercheur post-doctorant

Profil de poste

Emploi-type	Postdoctoral researcher
BAP	A
Missions	<p>The purpose of this project is to find novel targets for prevention, reversal and/or amelioration of age-related loss of skeletal muscle mass and strength i.e. sarcopenia to improve skeletal muscle function in elderly with worsened physical capacity and/or in age-related metabolic diseases such as type 2 diabetes where sarcopenia is exacerbated. The candidate will identify novel genes and mechanistically investigate their causative or preventive roles in the development of sarcopenia.</p> <p>Objectives:</p> <ol style="list-style-type: none"> 1. Identification of aging-associated genes in human skeletal muscle that could cause physiological deterioration of muscle mass and function 2. Functional characterization of the candidate genes in <i>C. elegans</i> for their role in muscle health and function 3. Functional validation of the candidate genes <i>in vitro</i> in mammalian skeletal muscle cells such as in mouse skeletal muscle cells (C2C12) and primary human skeletal muscle cells 4. <i>In vivo</i> validation of the candidate genes in mammalian systems using intact mouse muscle
Activités principales	<p>The candidate will develop a coherent translational research program in the aging and metabolism field. Within research group "Senescence, metabolism and cardiovascular diseases", of the Mondor Institute for Biomedical Research (U955) led by Pr. Geneviève Derumeaux and under the supervision of the group leader, Dr. Ilke Sen, he/she/they will:</p> <ul style="list-style-type: none"> • Identify novel players as modulators of skeletal muscle aging that could be new targets to treat sarcopenia. • Perform RNAi screens in <i>C. elegans</i> with readouts motility, sarcomere assembly and mitochondrial network assembly with the assistance of a research engineer. • Design and perform experiments for functional characterization of the candidate genes in different models such as <i>C. elegans</i>, mammalian primary skeletal muscle cells, and <i>in vivo</i> mouse skeletal muscle. Several functional and metabolic assays will be carried out depending on the direction of the project(s)/role of the candidate genes.
Activités associées	<p>The candidate is expected to be independent in the areas of experimental design, data gathering and analysis as well as manuscript preparation and presentation of the data in international meetings.</p>
Connaissances	<ul style="list-style-type: none"> • Strong background in molecular biology, cell biology and/or molecular metabolism with relevant hands-on skills • Experience in using <i>C. elegans</i> with applications: RNAi knockdowns, survival assays, reporter assays etc • Experience in primary cell culture and/or skeletal muscle cell culture • Experience in imaging and image processing softwares such as ImageJ

- Any level of knowledge in Next Generation Sequencing techniques including RNA-seq, ChIP-SEQ, ATAC-seq etc
- Any level of bioinformatic skills related to R, Python, Linux etc... will be appreciated
- Good scientific track record with authorships in peer-reviewed scientific publications
- Excellent communication and presentation skills to report data in a clear and concise manner
- Highly developed problem solving and risk management skills
- Strong interpersonal and collaboration skills, working in a team-oriented environment
- The successful candidate should show a high level of responsibility and should be able to work in a team and be willing to supervise students.

Aptitudes

- Project Management
- Multi-tasking
- Problem solving
- Independent and creative thinking
- International teamwork
- Technical knowledge
- Well-organized

Spécificité(s) / Contrainte(s) du poste

- Work in an international team

Expérience souhaitée

- All

Diplôme(s) souhaité(s)

- PhD

Structure d'accueil

Code unité U955 – EQUIPE 08

Intitulé Institut Mondor pour la Recherche Biomédicale

Responsable Jorge BOCZKOWSKI

Composition Faculté de Médecine

Adresse 8 Rue du Général Sarrail – 94010 Créteil

**Délégation
Régionale** DR 06 – INSERM

Contrat

Type CDD

Durée 24 months with a possibility of extension

Rémunération Upon experience and according to Inserm's salary scales

**Date souhaitée de
prise de fonctions** 01 Feb 2024

Pour postuler

Adresser votre CV et lettre de motivation à :

- E-mail : geneviève.derumeaux@inserm.fr, ilke.sen@ki.se, and anne.pizard@inserm.fr