

The Clermont Auvergne University (UCA Clermont-Ferrand, France) is hiring

Young Group leaders

In order to reinforce its research endeavors in an innovative and dynamic environment, the UCA is seeking young talented group leaders addressing research focused on the scientific field covered by the CAP 20-25 project – challenge 3: « Personalized human mobility for a better health » (see annex).

Successful candidates are expected to develop competitive research and meet the required criteria for applications to national and international funding (ATIP Avenir, FRM, ANR “*Jeunes Chercheurs-euses*”, ERC-StG...) and to a permanent position in a french research institution (Clermont Auvergne University, CNRS, INSERM or INRA) in order to perpetuate their involvement in the dynamics of the challenge. The host laboratory will assist successful candidates to compete for such permanent research positions.

Benefits

Successful candidates will be welcomed, for 24 to 30 months, in a host laboratory of the site and benefit from a budget of €300,000 to €340,000 (salaries and operating budget) depending on the duration of the contract period. They will have access to in-house state-of-the art technological facilities including molecular, genetic, behavioral and electrophysiological approaches, animal facilities, in vitro and in vivo imaging, -omic technics and clinical departments.

Requirements

Candidates, at early-career stage, are welcome to apply. They must have completed at least 3 years of postdoctoral training in a country different from the one of their PhD graduation. Candidates currently post-doctorant fellows in a Clermont-Ferrand laboratory are not eligible.

Submission

Candidates must fulfill the file attached to this call and send it to the following email address: challenge3.cap2025@uca.fr. Incomplete files will not be reviewed.

Applications deadline: **September 30, 2018 12:00** Europe/France (no file transmitted beyond this date/time will be evaluated).

Application form

Proposal's title:

Applicant :

Mrs. or Mr.

First name:

Last name:

Current position and laboratory (full name and acronym):

Curriculum vitae (*2 pages, Arial 11, single spaced, numbered pages*)

Scientific production

Proposal's summary.

1 page maximum, Arial 11, single spaced.

Proposal.

Applicants are advised to use an easily readable document layout: A4 pages, Arial 11, single spaced, numbered pages.

The project description must contain a maximum of 6 pages, figures included (bibliography not included).

Arguments and agreement of the host laboratory manager

ANNEX

* Synthetic summary of the thematic objectives of Challenge 3:

« Individual locomotion impacts autonomy, a key factor of human health and of special concern in the context of ageing. Preserving an active locomotor system as long as possible thus has a major influence on the quality of human life...To address the issue of individual mobility we consider that an integrative approach combining exploration of both the muscular system (development, metabolism, physical activity) and various intervening factors on locomotor apparatus and function (pain, nutrition, epigenetic, dysbiosis, chronic diseases) needs to be considered... The Scientific Research Challenge 3 is based on multidisciplinary approaches, strong public-private partnerships and aims at completing complementary objectives at the medical, technical, economic and social levels, which will allow a deeper understanding of the musculoskeletal system involved in mobility in both normal and pathological situations. With such a multimodal approach, it will define new models for sustainable living in good health, will help to prevent sedentary lifestyle and will allow designing treatments tailored to each individual...

Three main research actions will aim to acquire cutting-edge knowledge of the mechanisms driving or impeding individual mobility and to propose new therapeutic orientations:

- i) We will assess the metabolic responses to exercise and to nutritional and hormonal factors associated with reduced mobility in order to identify biomarkers of altered conditions of locomotion. Results will lead to the development of preventive and curative nutritional strategies-
- ii) Muscle development will be studied in both normal and pathological situations with a particular focus on programming stem cells for applications in regenerative medicine Genetic and epigenetic regulations controlling or affecting mobility will be investigated,
- iii) Pathophysiological mechanisms of pain and dysbiosis in inflammatory and painful diseases affecting mobility (chronic and metabolic diseases) will be assessed and new therapeutic targets will be identified and drugs and probiotics developed...

Moreover, *a health and social project* will be designed to optimize mobility and locomotor capacities during care and throughout life:

- i) Because a better consideration of mobility is likely to reduce morbidity and mortality, evaluations of locomotor capacities will be carried out in the hospital setting with physiologists, and the Clermont-Ferrand University Hospital and the Jean Perrin Cancer Centre will further work to optimize long-term physical activity and capacities for in- and out-patients. In addition, surveys of patient mobility at home will be performed using adapted sensors developed in association with Strategic Scientific Challenge 2.
- ii) In collaboration with the local administrative authorities, we will develop preventive actions and monitor the social impact of Strategic Scientific Challenge 3.