Postdoctoral Researcher Position in the Dental-Biomaterials Research Unit (d-BRU) of the University Of Liège

Area: Bacteria Biofilm as Bio-Factory for Tissue Regeneration

Start DATE: 01/01/2024

Deadline: 05/10/2023

The University of Liège is an accomplished research institution with more than 3500 researchers and over 2000 doctoral students active across all disciplines: humanities and social sciences, life sciences, health sciences, and medicine. Researchers at ULiège have many opportunities to expand their networks and connections.

Moreover, ULiège welcomes every year numerous researchers, national as well as foreign researchers thanks to the EURAXESS contact center. ULiège seeks to be an attractive research institution by improving working conditions for researchers using the HR Strategy for Researchers (HRS4R), creating an inclusive and supportive research environment through the free of charge assistance mechanism offered to incoming researchers and their families or providing conditions for open, transparent, and merit-based recruitment of research positions.

For more details about what ULiège can offer you as a foreign researcher, please see https://www.recherche.uliege.be/cms/c_9281209/en/mobilite-euraxess or contact: euraxess@uliege.be.

ABOUT THE PROJECT

BIOACTION aims at developing a new methodology in implant technology based on functionalized bio-hydrogels that will convert the negative occurrence of biofilm-associated infections, the primary cause of implant infections and failure, into a positive resource. The main goal of BIOACTION is to transform implant-associated bacteria for the programmable production of specific proteins for in vivo cell recruitment and tissue regeneration, exploiting gene sequences loaded on engineered liposomes and phages, bound to hydrogel scaffolds. BIOACTION will develop new biomimetic substrates that can transform biofilm into extracellular matrix for the regeneration of target tissues. It will establish a high versatile technology to be used as injectable materials and implant coatings for periodontal and peri-implant infection treatments. The proposed approach will be validated in two clinically relevant animal models: dental implant and permanent transcutaneous bone. BIOACTION, would radically advance the future of infection treatment by revolutionizing the classical approaches leading to the improvement of state of care, health outcomes and to achieve huge socio-economic benefits. The project is strongly interdisciplinary in nature involving expertise biomaterials, synthetic biology, phage and liposome technology, medicine. As a results, this innovative approach will bring the research and knowledge far beyond the current state-of-the-art and will lead, through the planned validation, as proof-of-concept of new materials and technique with a broader application in regenerative medicine.

JOB DESCRIPTION

As a partner of the BIOACTION project (https://bioaction.eu/), the dental-Biomaterials research unit is seeking for a postdoctoral researcher. This implies that you will design, organize and conduct experiments related to the project. You will also be responsible of the budget justification. You will attend about twice a year BIOACTON consortium meetings.

As a member of our research team, you will be involved in several research projects according to your expertise. You will also help postgraduate students in the conduction of their research project. You may participate in the post-graduate program in Periodontology and Implant dentistry of the University of Liège.

SPECIFIC DUTIES & ACTIVITIES

- Coordinate specific WPs of the project
- Writing protocols, ethical documents, reports and research articles
- Perform the experiments related to the project
- Data analysis and statistics
- Attend and organize meetings
- Manage budget

YOUR PROFILE

- **Required skills**:
  - PhD degree in Dentistry or Biomedical Sciences or equivalent
  - Experience in *in vivo* experimentation
  - Good knowledge in biomaterial development
  - Excellent scientific writing

- **Desirable skills**:
  - FELASA C or equivalent
  - Experience in European projects
  - Good knowledge of histology
  - Good knowledge of peri-implantitis

- **Soft skills**:
  - Scientific writing
  - Time management
  - Communication
  - Creativity and Innovation
  - Collaboration

- **Languages:**
  - English (C1)
  - French is an asset

EMPLOYMENT TERMS

- Type of contract: part-time or fulltime
- Length of contract: up to 3 years
- Start date : 01/01/2024

OUR OFFER

With your career path and personal details, ULiège Human Resources Department can assess the gross monthly salary. Employment benefits such as reimbursement of public transportation fees and access to a variety of training opportunities are also included.

WHAT ABOUT TRAININGS?

For more information about training please consult: https://www.recherche.uliege.be/cms/c_12381524/en/listing-des-formations-transversales

WORK ENVIRONMENT

We offer:

- A research project that will be organized together with excellent European academic partners (https://bioaction.eu/consortium)
- A translational working environment where the research unit is in close contact with the dental clinic of the CHU of Liège
- A modern, international and well-equipped research environment with state-of-the-art technological platforms

HOW TO APPLY

Please send the following documents in pdf to Dr Dorien Van hede (dorien.vanhede@uliege.be) **by 5th October 2023**.

1. A motivation letter (no more than two A4 pages)
2. Curriculum vitae, including your grades & publication list
3. Two reference letters

The title of the application email should be “BIOACTION position d-BRU” in order to ensure correct processing.

SELECTION PROCEDURE

The selection committee uses a number of indicators to evaluate the applicant's preparedness, motivation and potential. …

- **1st phase, remote pre-selection**

The Scientific, Technological & Academic excellence will be considered at first, based on:

- Quality of the CV, in general
- Any demonstrated research experience, particularly if supported by evidences such as scientific publications, patents, participation in scientific congresses, …
- Undergraduate performance: overall, with a special focus on relevant field-specific courses
- Any demonstrated previous recognitions (grants, awards, …)
- Reference letters provided by professors and senior scientists: Referees are asked to address analytical capabilities, technical proficiency, ability to work independently and motivation/commitment. If your references prefer to send their letters directly to us upon request, mention this clearly in the application.
- Statement of purpose: past research experience, motivation for applying to this particular PhD project, academic fit, contribution of the project to the candidate's future careers plans, ...
- Additional relevant skills (field-specific): demonstrated, e.g. through previous projects, and or through previous participation in scientific contests, trainings, ...

- **2nd phase, interview(s):**

Should the candidate be preselected at phase 1, a second phase will consist in at least one interview through which the motivation, the proactive behavior, the capacity to work collaboratively, the organizational skills, the communication skills and the capacity to engage in a scientific discussion and manage problems, will be assessed, among other aspects.

The final decision will be the result of a consensus of an evaluation committee that will take into account the results of both recruitment phases 1 and 2. The candidate will be informed of the section results by email.

CONTACT DETAILS AND FURTHER INFORMATION

Informal inquiries about the project are welcome. Please feel free to contact Dr Dorien Van hede (dorien.vanhede@uliege.be).

Release date: 07/09/23

Information on the processing of your personal

The personal data collected follow your application will be processed by the dental-Biomaterials Research Unit of the University of Liege for the purpose of organizing the selection and recruitment.

These data will be processed based on the execution of pre-contractual measures (art. 6-1, b. of the RGPD).

These data will be kept for the duration of the selection procedure and, at the most, 9 months after the publication of the job offer. This data will not be passed on to third parties.

In accordance with the provisions of the General Data Protection Regulation (EU 2016/679), you may exercise your rights relating to this personal data (right of access, rectification, deletion, limitation, and portability) by contacting the ULiège Data Protection Officer (dpo@uliege.be - Mr. Data Protection Officer, Bât. B9 Cellule "GDPR", Quartier Village 3, Boulevard de Colonster 2, 4000 Liège, Belgium). You also have the right to lodge a complaint with the Data Protection Authority (https://www.autoriteprotectiondonnees.be , contact@apd-gba.be).