PhD position in the field of neuroimmunology, mouse modelling and induced pluripotent stem cells

In the framework of the interuniversity research project HOUDINI we are seeking a PhD student eager to contribute to the development and characterization of a humanized mouse model for Charcot-Marie-Tooth disease.

Hasselt University belongs to the "Transnational University Limburg" (TUL; UHasselt, Belgium and Maastricht University, Netherlands) and is located in the heart of Europe, with cities such as Brussels, Liège, Aachen (Germany) and Maastricht (Netherlands) in close proximity. Our lab is part of the VIB Center for Inflammation Research (IRC). VIB is a life sciences research institute in Flanders, Belgium. With more than 1400 scientists from over 60 countries, we perform basic research into the molecular foundations of life.

The University of Antwerp is a dynamic, forward-thinking university. We offer an innovative academic education to more than 20000 students, conduct pioneering scientific research and play an important service-providing role in society. We are one of the largest, most international and most innovative employers in the region. With more than 6000 employees from 100 different countries, we are helping to build tomorrow's world every day. Through top scientific research, we push back boundaries and set a course for the future – a future that you can help to shape.

The PhD project will be part of an interuniversity research collaboration between the KULeuven, UHasselt and UAntwerp. The joined PhD will be integrated in two research teams, the Laboratory of Translational Immunomodulation, VIB Center for Inflammation Research of Prof. Markus Kleinewietfeld and the Peripheral Neuropathy research group of Prof. Vincent Timmerman.

About the HOUDINI project

Charcot-Marie-Tooth disease type 1 (CMT1) is a demyelinating peripheral neuropathy characterized by slowly progressing muscle weakness and the development of sensory problems. CMT1 is a genetic disease caused by mutations or copy number variations in several genes in Schwann cells, responsible for myelination. There is no cure for CMT because of an insufficient understanding of the pathogenesis. In this project, we start from stem cells and develop a humanized mouse model for CMT1. The model will recapitulate the disease, including the impact of inflammatory responses. We inject stem cell derived Schwann cells in the presence of a humanized immune system. We will also get better insights into the disease mechanism by using Schwann cells containing CMT1-causing genetic alterations. The humanized mouse model offers a novel and unique opportunity to validate candidate therapies for dominant and recessive forms of CMT1 and will contribute to a better understanding of CMT.

Profile

- You must hold an Academic Master recognized by the EU in one of the following disciplines: immunology, biochemistry, biology, bioengineering, biomedical or pharmaceutical sciences.
- Outstanding academic study performances according to ECST grading scale.
- FELASA C degree (or EU equivalent) for handling small model organisms.
- Strong interest in basic research, molecular mechanisms of neuroscience and immunology.
- You act with attention to quality, integrity, creativity and cooperation.
- You are willing to perform a joined PhD at two universities (UHasselt and UAntwerpen).
- You can speak and write fluently in English.
- You have a driving license.

What we offer

- A challenging project in two different research groups (UHasselt and UAntwerp).
- The research will be performed at the molecular, cellular and organismal level.
- We make use of rapidly advancing technologies in cell biology, induced pluripotent stem cell and organoid development, mouse modelling and neuroimmunology.
- We offer training, participation to congresses and international collaboration.
- The host laboratories provide financial support for 2 years. However, the applicant should seek in applying for a personal fellowship (e.g. FWO) during this period.
- Access to state-of-the-art infrastructure and core facilities in a vibrant, excellent research environment operating at an interuniversity level.
- Dedicated training programs available through UHasselt and UAntwerp to broaden your expertise and enhance your skillset.
- Your monthly salary is according to the amounts for doctoral scholarship holders on the pay scales for contract research staff (Dutch: *Bijzonder Academisch Personeel*, BAP).
- The planned start date is **1 December 2023** or as soon as possible after that date.
- You will do most of your work at UHasselt (Campus Diepenbeek) and UAntwerp (Campus Drie Eiken) in a dynamic and stimulating working environment for high-level neuroscience research.
- Comprehensive support from the international offices of the UAntwerp and UHasselt.

Want to apply?

- You can apply for this vacancy through contacting us via e-mail before **31 October 2023** and provide a motivation letter, your full CV and a name (work address and e-mail) of a reference person (preferentially from former supervisor during your master studies).
- The selection committee will review all of the applications as soon as possible after the application deadline. As soon as a decision is made, we will inform you about the next steps in the selection procedure, including interviews.
- If you have any question about the job itself, please contact
    - Prof. Markus Kleinewietfeld (markus.kleinewietfeld@uhasselt.vib.be) or
    - Prof. Vincent Timmerman (vincent.timmerman@uantwerpen.be).

Our universities are sustainable, family-friendly organisations that invest in its employees' growth. We encourage diversity and attach great importance to an inclusive working environment and equal opportunities, regardless of gender identity, disability, race, ethnicity, religion or belief, sexual orientation or age. We encourage people from diverse backgrounds and with diverse characteristics to apply.