

## PhD student Pharmacological induction of autophagy

This PhD project is embedded in a larger Concerted Research Action project (GOA) to ***validate autophagy induction as a therapeutic strategy***. In total, three PhD students will work in a complementary way to create new knowledge and tools to obtain readily translatable preclinical results in this exciting research field of autophagy induction.

The Departments of Pharmaceutical Sciences and Biomedical Sciences in the Faculty of Pharmaceutical, Biomedical and Veterinary Sciences are looking for a **full-time**

### **PhD student in the field of pharmacological induction of autophagy**

This PhD project will be executed in two research groups:

**Peripheral Neuropathy Research Group**: This research group aims to identify selective pharmacological agents that can stimulate autophagy as a potential treatment for peripheral neuropathies. The PhD student will characterize compounds that can induce autophagy in a dose and time dependent manner. The student will monitor autophagy induction in different cell types, including assay development and high content analysis of selected compounds in neurons differentiated from induced pluripotent stem cells. The student will also administer the compound(s) in transgenic and control mice.

**Laboratory of Physiopharmacology**: This research group has a major track record in the pathophysiology of atherosclerosis. Various factors that modulate atherosclerotic plaque vulnerability such as cell death and intraplaque neoangiogenesis are extensively studied. Because autophagy plays an important role in maintaining (cardio)vascular health, the aim of the present PhD project is to explore innovative routes to treat unstable atherosclerotic plaques via induction of autophagy. The student will use different techniques such as cell culture, molecular biology assays (western blotting, qPCR), histology, immunohistochemistry and echocardiography to evaluate the impact of autophagy induction in the context of atherosclerosis. Mouse models of advanced atherosclerosis are available to study autophagy induction in vivo.

### Job description:

- A challenging PhD project in which we apply biochemical and pharmacological experiments in two different research groups.
- The research will be performed at the molecular, cellular and organismal level.
- The project will make use of several state of the art and rapidly advancing technologies in biochemistry, molecular biology, cell biology, pharmacology, neuroscience and vascular disease.
- The project will offer training, participation to congresses and international collaboration.

### Profile and requirements:

- You must hold an Academic Master recognized by the EU in one of the following disciplines: biochemistry, biology, bioengineering, biomedical or pharmaceutical sciences.
- Outstanding academic study performances; according to ECST grading scale and recognized by the EU.
- FELASA C degree (or EU equivalent) for handling small model organisms is obligatory. Candidates who do not have a FELASA C degree are willing to follow courses to obtain this degree at the start of the PhD project.
- Expertise or knowledge in molecular and cellular biology, statistics and bioinformatics.
- Strong interest in basic research, pharmacology and the molecular mechanisms of neuroscience and vascular disease.
- Your research qualities are in line with the faculty and [university research policies](#).
- You act with attention to quality, integrity, creativity and cooperation.
- Flexibility and team spirit in an international research environment.
- Excellent verbal and written English communication skills.

### What we offer:

- We offer a doctoral scholarship for the first year. The applicant is expected to defend an innovative PhD project at the FWO-Flanders (see guidelines: [www.fwo.be](http://www.fwo.be)) . If not granted, obtaining adequate ranking for this competitive doctoral scholarship will result in a contract for a period of at least one additional year with possibility for re-application the next year.

- The planned start date is 1 March 2021 or as soon as possible after that date.
- Your monthly scholarship amount is calculated according to the [scholarship amounts](#) for doctoral scholarship holders on the pay scales for contract research staff (Dutch: Bijzonder Academisch Personeel, BAP).
- You will do most of your work at Campus Drie Eiken in a dynamic and stimulating working environment.
- Find out more about working at the University of Antwerp [here](#).

### How to apply:

- You can apply for this vacancy through the University of Antwerp's online job application platform **up to and including 1 February 2021** (by midnight Brussels time). Click on the 'Apply' button, complete the online application form and be sure to include the following attachments: a motivation letter and your CV.
- The selection committee will review all of the applications as soon as possible after the application deadline. Selected candidates will be invited for an interview in February and will be informed about the remainder of the selection procedure.
- If you have any questions about the online application form, please check the [frequently asked questions](#) or send an email to [jobs@uantwerpen.be](mailto:jobs@uantwerpen.be). If you have any questions about the specific PhD project please contact: Prof. Dr. Vincent Timmerman, PhD (Peripheral Neuropathy Research Group; [vincent.timmerman@uantwerpen.be](mailto:vincent.timmerman@uantwerpen.be)) / Prof. Dr. Wim Martinet, PhD (Laboratory of Physiopharmacology; [wim.martinet@uantwerpen.be](mailto:wim.martinet@uantwerpen.be))

*The University of Antwerp received the European Commission's **HR Excellence in Research Award** for its HR policy. We are a sustainable, family-friendly organisation which invests 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.*