

## Vacancy postdoctoral researcher University of Antwerp

Part-time (40-60%, duration 4 years) postdoctoral researcher for the FWO project:  
**sCANsens: Identifying biomarkers for chronic pain after breast cancer treatment.**

### About the research group

The project is a collaboration between the department of Rehabilitation Sciences of the University of Antwerp, [MOVANT research group](#) (Prof. Mira Meeus, Prof. An De Groef), the Breast Clinic of the Antwerp University Hospital (Prof. Wiebren Tjalma, Prof. Peter van Dam) and the radiology department of the Antwerp University Hospital (Prof. Pieter Van Dyck and Prof. Sven Dekeyzer).

The central research theme of MOVANT is rehabilitation and movement. This specific project fits in the focus domain 'MoveAdapt – Measuring and improving adaptation'. The focus of MoveAdapt is threefold:

- Screening, assessment and evaluation of adaptation processes in a biopsychosocial way by using comprehensive tools (e.g. Quantitative Sensory Testing, brain imaging, patient reported outcomes)
- Studying mechanism of adaptation processes following the input-processing-output framework (e.g. coping mechanisms)
- Improving management (treatment and prevention) of patients with disorders, including oncology populations, in adaptation processes (input-processing-output)

### About the project

Up to 40% of women experience chronic pain after treatment for breast cancer, and this pain is often very disabling. However, chronic pain after breast cancer remains under-recognised and undertreated. An effective and patient-tailored approach of (chronic) pain after breast cancer indeed requires a thorough knowledge and evaluation of the pain. In daily clinical practice, however, guidelines for a comprehensive diagnosis of pain in cancer patients and survivors are lacking. Further research in this topic is crucial for an efficient, preventive as well as curative, approach of pain after breast cancer. Besides the high relevance and the important impact of pain in this population, the breast cancer population is also an ideal population to study chronic pain and its natural time course in different stages, since most patients start pain-free, but almost half of them end up with chronic pain.

Therefore, this study aims to map biomarkers (both predictive, prognostic and diagnostic) or chronic pain after breast cancer treatment. We will study possible biopsychosocial biomarkers in relation to (chronic) pain and monitor their temporal changes from the moment of diagnosis until 1 year after surgery. The potential biomarkers are situated within the medical imaging of the brain (evaluated using MRI), measurements of pain sensitivity (evaluated using Quantitative Sensory Testing) and psychological variables (evaluated using self-reported measures).

### **Your job**

- You will be responsible for the work package on brain imaging in this project: take the lead in the MRI programming and processing and closely collaborate with the Radiology (MRI) department of the Antwerp University Hospital.
- You will supervise master students and the appointed PhD student on the project.
- You will assist in overall management of the project.
- You will assist in the coordination and financial management of the project.

### **Your profile**

- A highly motivated, enthusiastic, critical and creative individual to join our team.
- PhD degree in biomedical sciences, medicine or rehabilitation sciences, or related fields.
- Scientific and/or clinical experience in the area of (functional) MRI (structural/anatomical (T1), functional (T2) and diffusion weighted imaging (DWI)) and software for neuroimaging analysis, preferentially within the domain of pain neurosciences.
- Fluent in English speaking and writing, Dutch is a plus
- Organization and management skills, you work accurately

### **We offer**

- A dynamic research group with international expertise in the field pain neuroscience and clinical oncological (after)care that will guide you in this project.
- A creative environment with guidance towards independence in scientific research, but also an excellent basis for further training in this field.

### **Starting date: summer 2021 (based on availability)**

Submit a motivated application with CV by e-mail to [mira.meeus@uantwerpen.be](mailto:mira.meeus@uantwerpen.be) and [an.degroef@uantwerpen.be](mailto:an.degroef@uantwerpen.be) no later than **17 May 2021**. We invite suitable candidates for (online) selection interviews on **21 May 2021** during lunchtime.