Job description

ABOUT GHENT UNIVERSITY

Ghent University is a world of its own. Employing more than 15.000 people, it is actively involved in education and research, management and administration, as well as technical and social service provision on a daily basis. It is one of the largest, most exciting employers in the area and offers great career opportunities. With its 11 faculties and more than 85 departments offering state-of-the-art study programmes grounded in research in a wide range of academic fields, Ghent University is a logical choice for its staff and students.

For a joint project between the Faculty of Sciences (Department of Chemistry) and Faculty of Engineering and Architecture (Department of Electronics and Information Systems) we are looking for a m/f/x **Doctoral fellow**.

YOUR JOB:

More than 2.3 million new cases of breast cancer are diagnosed each year. During surgery, it has become standard practice to remove the primary tumour as well as the so-called sentinel lymph nodes (SLN), the lymph nodes that have the highest probability of being invaded by cancer cells. Unfortunately the current clinical standard to find and remove SLNs suffers from a strong degree of procedure inflexibility, low spatial resolution, low worldwide accessibility, allergic reactions and/or a long-lasting blue skin staining (months to years).

Our research groups have developed an improved workflow to detect and remove SLNs based on nanocrystals.

In this research project, the candidate will build further on our existing expertise to design and create novel nanocrystal imaging probes that can aid in the battle against breast cancer. In a first step you will create new nanocrystals and tune their surface chemistry for biological applications. Next, you need to gain a deeper understanding on how the nanocrystals interact with specific cell populations and possibly cause toxicity. In the final step, you assess the *in vivo* lymphatic and intravenous bio-distribution, imaging performance and safety.

Job profile

We are looking for a motivated PhD student to join the SCRiPTS research group (Department of Chemistry) and MEDISIP research group (Department of Electronics and Information Systems). This role offers the opportunity to work in a highly interdisciplinary field where you will perform chemical wet-lab work, as well as *in vitro* and *in vivo* experiments on successful nanocrystal formulations.

- You hold a Master's degree in Chemistry, Pharmaceutical sciences, Nanosciences, Biochemistry, Biomedical sciences, Biomedical engineering, or equivalent.
- You have a strong interest in interdisciplinary research that bridges chemistry, biology, and medicine. The candidate will be expected to contribute to all aspects of the project and develop expertise in areas beyond their initial specialization.

- You are a motivated, diligent and punctual person capable of teamwork and with attention to detail and rigor.
- Excellent written and oral English communication skills are required; knowledge of Dutch is a plus but not mandatory.
- FELASA certification (B or C) is a plus, but can be obtained during the project

WHAT WE CAN OFFER YOU

- We offer a full-time position as a doctoral fellow, consisting of an initial period of 12 months, which - after a positive evaluation, will be extended to a total maximum of 48 months. The candidate will be encouraged and supported to also apply for additional external funding.
- Your contract will start on 01/04/2025 at the earliest.
- The fellowship amount is 100% of the net salary of an AAP member in equal family circumstances. The individual fellowship amount is determined by Team Personnel Administration based on family status and seniority. A grant that meets the conditions and criteria of the regulations for doctoral fellowships is considered free of personal income tax. Click here for more information about our salary scales
- All Ghent University staff members enjoy a number of benefits, such as a wide range of training and education opportunities, 36 days of holiday leave (on an annual basis for a full-time job) supplemented by annual fixed bridge days, bicycle allowance and eco vouchers. Click here for a complete overview of all the staff benefits.
- As a PhD candidate, you will work towards a doctoral degree through the Doctoral Schools program at Ghent University under the supervision of dr. Loren Deblock, Prof. Christian Vanhove, and Prof. Isabel Van Driessche.

How to apply

Send your application or any questions concerning this vacancy to:

➔ Dr. Loren Deblock, loren.deblock@ugent.be
➔ Prof. Dr. Christian Vanhove, christian.vanhove@ugent.be
➔ Prof. Dr. Isabel Van Driessche, isabel.vandriessche@ugent.be

IMPORTANT: Please put these three email addresses in ALL your communications.

Applications should include:

- Your CV
- A personal motivation letter of maximum 1 page

- A copy of your diploma (if already in your possession)
- A transcript of courses taken, their grades within bachelor and master studies, and the languages the courses were taught in.
- Contact information of minimum two reference persons

After screening, selected candidates will be invited for an online interview as a first contact in a multi-stage selection process.

Your complete online application must be submitted no later than 28 February 2025.

We do not accept late applications.