



VACANCY POSTDOCTORAL RESEARCHER

DEVELOPMENT OF INTRANASAL VACCINE FORMULATIONS

ABOUT GHENT UNIVERSITY AND GSK

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 80 departments offering state-of-the-art study programs grounded in research in a wide range of academic fields, Ghent University is a logical choice for its staff and students.

At GSK, our purpose is to unite science, technology and talent to get ahead of disease together. We are a global healthcare company with strengths in pharmaceuticals, vaccines, oncology, and general medicines. Our R&D teams focus on transformative science in areas such as immunology, oncology, infectious diseases and respiratory health, while our commercial and manufacturing teams ensure safe, reliable access to essential medicines worldwide.

ABOUT THE RESEARCH TEAM

The research team of Prof. Koen Raemdonck (Full Professor) is embedded in the Ghent Research Group on Nanomedicines at the laboratory for General Biochemistry and Physical Pharmacy, Faculty of Pharmaceutical Sciences at Ghent University. The group is a world-leading research lab on macromolecular drug delivery by nanomedicines. The lab hosts 6 professors and their multidisciplinary research teams, with on average 45 researchers with diverging scientific backgrounds, who collaborate closely on a daily basis. You will be part of a dynamic, pluralistic and multidisciplinary team that is highly motivated to perform high-level research on drug delivery.

PROJECT DESCRIPTION

This postdoctoral position is part of an academic–industry collaboration between Ghent University and GSK focused on the development of safe, stable and effective intranasal vaccine formulations. The successful candidate will lead the design, preparation, characterization, and optimization of nanoformulations intended for intranasal vaccine delivery. They will develop and perform in vitro and ex vivo assays relevant to intranasal administration, including mucoadhesion and penetration studies, antigen release profiling, mucosal barrier interaction, and cellular uptake in respiratory epithelial and antigen-presenting cell models. Additionally, the candidate will contribute to the design and interpretation of preclinical studies, while maintaining rigorous standards of documentation, data management, and quality control to support translational efforts and potential regulatory interactions.

Responsibilities also include preparing research reports, manuscripts, and presentations, as well as actively participating in meetings with academic and industry partners. To be successful in this role the candidate must be able to interpret and clearly communicate complex scientific data to diverse

audiences, including technical peers and external opinion leaders. They should combine creative problem solving with rigorous analytical thinking, demonstrate strong written and verbal communication skills, and perform effectively under pressure in a fast-paced research environment. Excellent collaboration and interpersonal skills are essential, with a proven record of contributing constructively as a team player.

The postdoc is expected to spend the majority of their time at the GSK Rixensart site, with part of their work conducted at Ghent University.

WHO CAN APPLY?

Required profile

- PhD (obtained) in pharmaceutical sciences, nanomedicine, chemical engineering, biopharmacy, biomedical sciences or closely related discipline.
- Strong, documented hands-on experience with nanoformulations (design, preparation and characterization). Experience with lipid nanoparticles, polymeric nanoparticles, emulsions or similar systems is essential.
- Proficiency in relevant analytical techniques: dynamic light scattering, HPLC/UPLC, DSC, surface charge measurement and assays for encapsulation/loading and release.
- Experience with in vitro cell-based assays using respiratory epithelial cells and antigen-presenting cells; familiarity with ex vivo nasal tissues is an advantage.
- Demonstrated ability to design experiments, analyze complex datasets and draw clear conclusions.
- Excellent communication skills in English (written and spoken).
- Good organizational skills, ability to work independently and as part of a multidisciplinary team, and interest in translational research with industry collaborators.

Preferred qualifications

- Specific experience with intranasal/mucosal formulations or administration is preferred (prior work on mucoadhesive systems, nasal delivery devices, in vitro/ex vivo nasal models, or intranasal in vivo studies).
- Track record of peer-reviewed publications and contribution to project reports/grants.
- Practical experience with aseptic techniques and handling of vaccine antigens under appropriate biosafety conditions.

WHAT WE CAN OFFER YOU

- We offer you a full-time postdoctoral staff member contract of definite duration, with a fixed term of 2 years.
- Your contract will preferentially start by April 2026 or as soon as possible afterwards.
- You will be able to advance your academic career in various ways (e.g. development of research skills, academic writing skills, managerial skills, or contribute to scientific and societal valorization of research,...).
- Your remuneration will be determined by salary scale PD1. [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](#) (in Dutch).

INTERESTED?

Apply **online through the e-recruitment system before the application deadline (February 12, 2026)**. We do not accept late applications or applications that are not submitted through the online system (see link below).

<https://jobs.ugent.be/job-invite/29563/>

Your application must include the following documents:

- **'CV'**: your updated CV (pdf format)
- **'Cover letter'**: your application letter in pdf format
- **'Diploma'**: a transcript of the required degree and grades (if already in your possession). If you have a foreign diploma in a language other than our national languages (Dutch, French or German) or English, please add a translation in one of the mentioned languages.
- **'other documents'**: a reference letter (optional)

As Ghent University maintains an equal opportunities and diversity policy, everyone is encouraged to apply for this position.

MORE INFORMATION

For more information about this vacancy, please contact Prof. Koen Raemdonck (koen.raemdonck@UGent.be). Selected candidates will be invited for an interview and further discussion. For more information about the lab, please check our website: <https://www.drugdelivery.be>.