

**Open position for a postdoctoral fellow in the laboratory of Hematology  
(GIGA Institute, ULiege)**

A postdoctoral position is open to join the 'Laboratory of Hematology' led by Dr. Yves BEGUIN and Frédéric BARON within the Unit GIGA-I3 at the campus Sart-Tilman of the University of Liège in Belgium. The GIGA ([https://www.giga.uliege.be/cms/c\\_4113263/en/giga](https://www.giga.uliege.be/cms/c_4113263/en/giga)) is an interdisciplinary biomedical research center offering access to core facilities including animal facilities, imaging, sequencing and viral vector production platforms.

GIGA and the University of Liège welcome applicants with diverse backgrounds and experiences.

### Subject description

Allogeneic hematopoietic cell transplantation is currently the only curative treatment option for patients affected by hematological disorders such as acute myeloid leukemia or lymphoid malignancies. However, the success of this therapy is limited by the development of Graft-versus-Host Disease (GVHD), a complication resulting from the attack of recipient's organs by donor's immunocompetent cells present in the graft. Over the last few years, our lab has aimed at discovering novel therapeutic strategies preventing the development of GVHD through the promotion of tolerogenic regulatory T cells (Ehx et al. American journal of Transplantation, 2021; Ehx et al. Oncoimmunology, 2017; Fransolet et al. Journal of Hematology and Oncology, 2016). The proposed project aims at mitigating GVHD by rewiring the signaling of interleukin-2 toward regulatory T cells at the expense of cytotoxic T cells. This will be achieved by knocking out the expression of CD25 (the high affinity component of the interleukin-2 receptor) in the latter cell population before transplantation.

We are seeking for a highly motivated and enthusiastic post-doctoral fellow to join our forces on this project and bring new expertise to our lab. Specifically, we are looking for a candidate having a well-established expertise in gene knock-out by CRISPR/Cas9 in primary hematopoietic cells. The successful candidate will also work on cutting-edge technologies including multi-parametric flow cytometry, single-cell and bulk RNA sequencing, humanized mice models and in-vivo imaging. A training on these technologies will be offered to the candidate if necessary. The project will be conducted at GIGA (CHU of Liege, Sart-Tilman, Liege, Belgium), a multi-disciplinary environment which will provide the candidate with ample possibilities to learn new skills and methods.

### Work duties

The main duties involved in this post-doctoral position is to conduct research.

Work duties include:

- Design and perform the CRISPR/Cas9 knock out of CD25 in cytotoxic T cells obtained from healthy donors with the help of our viral vector platform.
- Evaluate the effect of the knock-out on GVHD by transplanting immunodeficient NSG mice with the transformed cells and performing clinical monitoring of the animals.
- Characterize the immune cell population frequencies as well as the signaling of interleukin-2 in regulatory T cells and helper / cytotoxic T cells by flow cytometry and RNA sequencing in collaboration with our flow cytometry and genomics platforms.
- Possibility to develop own research questions within the project aims.

## Qualification requirements

Appointment to a post-doctoral position requires that the applicant has a PhD, or an international degree deemed equivalent to a PhD, within the subject of the position, at the time for employment decision. The doctoral degree should have been obtained no more than five years before the last date for applications. Extensions are possible under certain circumstances such as childbirth and adoption. Importantly, the candidate should be a situation of international mobility: he/she should not have worked or lived in Belgium for more than 24 months during the 3 years preceding his/her start date.

Additional requirements:

- Good proficiency in written and oral English.
- Good communication skills.
- Ability to work well individually and as part of a team.

## We offer

- A high-profile research project, fully financed by competitive grants.
- A modern, international, and well-equipped research environment with state-of-the-art technological platform.
- An attractive salary in an affordable, lively, and welcoming environment.
- Funding available for up to December 2023 with possibilities of extension upon grant application.
- The position is available immediately.
- Deadline for application: open until filled.

## How to apply

Please provide a cover letter in which you present yourself and motivate your interest in the position, a CV including information about your education, previous work experience and expertise, and two references with contact information. Documents should be sent to [f.baron@uliege.be](mailto:f.baron@uliege.be)

Additional information can be obtained at the same email address.

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[https://www.gigahemato.uliege.be/cms/c\\_4227113/en/gigahemato](https://www.gigahemato.uliege.be/cms/c_4227113/en/gigahemato)