

Post-doctoral position

The Laboratory of Tumor and Developmental Biology, GIGA-Cancer, at the University of Liège (Belgium) (PI: Professor Agnès NOEL) has an opening position for a post-doctoral candidate.

Project summary:

The lymphatic vasculature is a hugely underappreciated component of the tumor microenvironment. Besides its recognized role in fluid homeostasis and regional immunity, the complexity of lymphatic vessels is now emerging. New lymphatic vessels form (lymphangiogenesis) within primary tumors and contribute to cancer cell dissemination to lymph nodes. This project is based on our pioneering identification of uPARAP as a specific master regulator of lymphangiogenesis in cancer. uPARAP controls specifically the lymphangiogenic process without affecting angiogenesis (Durré et al, 2018). This endocytic receptor is a partner of VEGFR-2 and VEGFR-3 that regulates their heterodimerization and drives VEGF-C mediated lymphatic endothelial cell migration. The unique role of uPARAP in lymphatic vascular morphogenesis and drainage function offers new possibilities to interfere with lymphatic vessel functions during cancer cell dissemination and in lymphedema induced by cancer treatment.

Our objective is to conduct further in-depth mechanistic investigation on the roles of uPARAP in pathological processes with the following specific goals:

- to evaluate the potential impact of uPARAP as an anti-metastatic therapeutic target in vivo;
- to investigate uPARAP functions in lymphedema in vivo;
- to decipher uPARAP-driven molecular mechanisms of lymphatic morphogenesis in vitro.

Techniques

The project relies on a panel of in vivo and in vitro assays. It combines cellular, biochemical and molecular biology techniques (Cell culture, Western Blotting, RT-qPCR, RNA-Sequencing, Cell signaling, immunohistochemistry, co-IP, Mass Spectrometry, transfection/transduction for gene expression).

Information on: Durré et al, Nature Communications. 9(1):5178, 2018.
https://www.gigaltd.uliege.be/cms/c_4256809/fr/portail-gigaltd

The ideal candidate will be highly motivated have an experience in the assays/approaches mentioned above.

➔ Interested candidates should send their CV and application letter to Professor Agnès Noel (agnes.noel@uliege.be).