



PhD student position in ULIEGE

GIGA-Cancer/Laboratoire de Biologie des Tumeurs et du Développement
(Dr Nor Eddine Sounni)

Project title: "Lipid droplets: origins and roles upon alterations of the tumor microenvironment"

Job description:

The project "Lipid droplets: origins and roles upon alterations of the tumor microenvironment" is a 2-years project funded by the F.R.S.-FNRS Télévie that will be conducted in collaboration with the University of Louvain (UCL). Lipid droplets (LD) are cytoplasmic organelles comprising a core of neutral lipids, such as triacylglycerols and cholesteryl esters, surrounded by a phospholipid monolayer. Cancer cells contain considerably more LD than normal cells. Pilot studies in Dr N.E. Sounni (ULg) and Prof. O. Feron (UCL) labs led to the observation that generation of LD in cancer cells was a consequence of alterations in the tumor microenvironment (TME). You will study the role of LD in cancer cell adaptation to chronic acidosis and intermittent hypoxia. The study implies in vitro experiments with 3D spheroids and in vivo experiments in mice bearing human tumor xenografts (Ref: *Sounni et al; Cell Metab.* 2014 Aug 5;20(2):280-94; *Korbet et al; Cell Metab.* 2016 Aug 9;24(2):311-23). The candidate will use inducible CRISPR/Cas9 systems to silence proteins involved in LD formation. This approach will help to dissect the determinants of LD formation upon TME alterations and to understand how LD in turn contribute to a new bioenergetic equilibrium in "stressed" cancer cells that support cancer progression.

Profile:

Required diploma: MSc (or equivalent degree) in Biomedical Sciences.

Expected qualifications:

- Highly motivated candidate willing to commit to a 4 year PhD-program
- Candidate must speak fluent English (speaking Dutch and French is an advantage)
- Advanced knowledge of scientific English and excellent communication skills
- Experience with experimental animal research or relevant experiment techniques in molecular biology is an asset
- Candidate should be able to work independently and interact with multidisciplinary teams

We offer:

A 2-years full-time Doctoral Grant (F.R.S.-FNRS Télévie) beginning on October 1st, 2018 and renewable once.

The application must include:

- One-page statement of motivation and research interests
- Curriculum Vitae
- Copies of educational certificates

Applicants must send the required documents to nesounni@uliege.be before September 17. All documents should be in English. Any questions related to the position can be directed to Nor Eddine Sounni (nesounni@uliege.be or +32 4 366 25 70).