

## **Radiobiology Researcher Position (24 months): Assessment of radio-induced immune response to optimize Radiotherapy / Nanoparticles / Immunotherapy combination**

A member of the UNICANCER federation, **the Center Georges François Leclerc (CGFL)** is a non-profit private health institution of collective interest (ESPIC). Its activity is exclusively dedicated to the fight against cancer, in the field of care, education and research. It has 200 beds and a large technical platform. It employs 900 people and achieves an annual sales of €120 million, 10% of which is devoted to research.

**The Preclinical Radiotherapy and Radiobiology Research Team** of the CGFL develops research projects about radio-induced immune response, RT / Immunotherapy combinations and RT / radiosensitizing Nanoparticles combinations. Our research **projects aim to generate solid proof of concepts necessary for the development of innovative clinical trials**. This team is integrated into the INSERM 1231 laboratory. The research themes are coordinated with those of the medical physics and clinical radiotherapy departments.

Our team specializes in the analysis of the tumor microenvironment after external RT (SARRP), the development and use of various RT techniques (2D, 3D, Stereo RT), the use of cell culture and in vivo models.

Integrated into the PIRP (Radiotherapy and Preclinical Imaging Platform) of our establishment, our team can also develop projects requiring imaging analyzes (SPECT-CT, PET-IRM, etc.) and/or combinations with targeted radiation therapy.

**In this present project**, the candidate will comprehensively study the effect of ionizing radiation on the tumor microenvironment in vivo via transplants on immunocompetent mice, using flow cytometry techniques, IHC, transcriptomic analysis. In parallel, the development of blood biomarkers in preclinical and clinical settings will be carried out.

**Work environment:** CGFL has access to preclinical radiotherapy facilities, expertise in radiobiology, technical staff and high-level interdisciplinary platforms for preclinical imaging and immunomonitoring evaluation (flow cytometry, Nanostring, SingleCell, etc.).

**We are looking for:** a candidate with a PhD, highly motivated with an interest in radiobiology and immunology. In the framework of this project the candidate will investigate irradiated mice tumor-grafted and tumor cells in a comprehensive manner by using flow cytometry, tissue staining, transcriptomic analysis and blood biomarkers development. In order to ensure a good integration a good team spirit is necessary. Experience in R programming to develop multivariate biomarker analyzes would be appreciated. Fluency in written and spoken English is essential for this position.

For any further information contact: **Céline MIRJOLET** ([cmirjolet@cgfl.fr](mailto:cmirjolet@cgfl.fr)).

Interested candidates are invited to send their CV together with a covering letter and the names of 1-2 reference(s) to [servicedrh@cgfl.fr](mailto:servicedrh@cgfl.fr)

The salary will follow UNICANCER guidelines.

**Application deadline: 30<sup>th</sup> November 2022**