

## ***Post-doctoral position: "Development and validation of tools for proton therapy dose calculations and irradiations"***

### **Context**

The Orsay Proton therapy Center (CPO) founded in 1991 is part of the Radiation Oncology department at Institut Curie Hospital group, which is one of the European-wide recognition as a Comprehensive Cancer Center of excellence. This post is associated with a H2020 project INSPIRE which seeks to integrate proton therapy research across Europe, and is an exciting opportunity to join the proton therapy research activities in Orsay. INSPIRE involves “networking activities, transnational access and joint research activities”. The people appointed would be expected to spend time working in all of these sections.

In joint research activities they would be expected to work in one or more of the following areas:

- proton therapy dosimetry, robustness and uncertainties, intercomparisons and high dose-rate measurements for scanned beams.
- proton therapy radiobiology modelling (relative biological effectiveness considerations and modelling).
- testing existing mathematical models which enable biological factors to be incorporated into clinical treatment planning.
- For networking and transnational access they would be expected to work with external partners who wished to access the experimental proton beamline capabilities within the INSPIRE project and to work in partnership with the leads for networking and transnational access.

### **Skills**

The candidate must hold a PhD in radiation physics, medical physics or detection physics • Radiation matter interactions / radiation therapy / dosimetry • Preferred expertise and experience in one or more of the following areas: programming skills (MATLAB, Python, C++) – Monte Carlo simulations (ex: Geant4) – Measurements – Treatment planning (protons). You will also be expected to have experience in working as part of a multidisciplinary team.

**Location:** Institut Curie, Centre de protonthérapie d’Orsay, France

**Duration:** 24 months, starting march 2019

Please apply by e-mail (CV, application letter, references) to [ludovic.demarzi@curie.fr](mailto:ludovic.demarzi@curie.fr)