Postdoctoral position: "Treatment planning for very-high energy electrons (VHEE) radiation therapy"

Host structure

The Institut Curie is a major player in cancer research and treatment. It consists of a hospital and a research center with more than 3,000 employees and a strong international presence. 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 position will be associated with a research project at CPO whose goal is to develop new treatment planning methods for very-high energy electrons (VHEE) treatments, and their application to FLASH radiotherapy, and is an exciting opportunity to join the radiation therapy research activities in Orsay, within the hospital and the research center.

Job description

Within the radiation oncology department based at the Institut Curie- Hospital Orsay (91), the medical physics' team is recruiting a postdoctoral fellow, with a strong interest in translational research on cancer treatment. As part of the activities of this project, the applicant would be expected to work in the following area:

- VHEE treatment planning modelling (physical and biological optimization considerations for ultra-high dose-rate FLASH therapy, accelerator modelling).
- VHEE applications for radiation therapy (clinical simulations, experimental validations, detector benchmark).

Profile required

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. You will also be expected to have experience in working as part of a multidisciplinary team.

Contract information

Type of contract: CDD  
Contract duration/Starting date: 24 months starting april 2022  
Working hours: Full time – 39h/week  
Remuneration: according to the current standards  
Benefits: Collective restaurant, 70% reimbursement of the transport ticket, company mutual insurance  
Location: Institut Curie, Centre de protonthérapie d’Orsay, France  
Reference: VHEE

Contact

Please apply by e-mail (CV + application letter + references/support letter) to ludovic.demarzi@curie.fr  
Application deadline: 22nd April 2022

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