

15 months position in Montpellier, France

The « radiopharmaceutical dosimetry » group of the team Sterol metabolism and therapeutic innovations in oncology (INSERM UMR 1037, Toulouse, France) is opening an **15 months position in Montpellier** (France), starting now, on preclinical imaging and dosimetry. The work is included in a larger National Institute of Cancer (INCa) sponsored project entitled: **RIT-L3E : Radioimmunotherapy of small peritoneal carcinomatosis using low energy electrons emitters.**

Two INSERM (National Institute of Health and Medical Research) laboratories, one in Montpellier, the other in Toulouse are collaborating on this project.

The candidate will participate to the development of dosimetric approaches required by the project, essentially by addressing the question of quantitative microSPECT imaging.

Most of the work will be carried out in Montpellier, using the Bioscan nanoSpect microSPECT/CT device installed within the laboratory, and will aim at the development and validation of quantitative microSPECT imaging for dosimetry. This implies:

- Performance assessment of the imaging device (^{99m}Tc et ^{125}I in a first step, but other isotopes may be considered), both on phantoms and animals,
- Development of specific QC/QA protocols for small-animal SPECT imaging
- Development of acquisition and processing approaches insuring the feasibility of longitudinal studies on laboratory mice,
- Implementation and validation of CT-based attenuation correction
- Detector modelling (using Gate) and experimental validation
- Collaboration with the PhD student in charge of mouse-specific dosimetric calculations.

The candidate will have a strong background in Medical Physics (ideally a PhD in Medical Physics), including skills in nuclear medicine imaging and scientific computing:

- Experience on Monte-Carlo codes (Gate) would be favourably considered,
- Some practical experience in small animal imaging (SPECT/PET) is required,
- This project will be carried out in a multidisciplinary environment, and the candidate will be responsible of the developments of the medical physics aspects of the project,
- Communication skills, team working, flexibility are essential for this project,
- Mastery of French or English is required.

Salary will be fixed by INSERM administration by taking into account the status (PhD or no-PhD) and experience. As an example, a Post-Doc will earn around 2000€ net/month.

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<http://www.opengatecollaboration.org/>