

Post-Doc offer (9 Months to 2 years) in Toulouse, France

The « radiopharmaceutical dosimetry » group of the « Sterol Metabolism and Therapeutic Innovations in Oncology» team (UMR 1037 INSERM/UPS) is opening a 9-month position (with possible extension to 2 years) in Toulouse (France).

The candidate will first participate to an on-going project on small animal radiopharmaceutical dosimetry (Theranest).

Gate (<http://opengatecollaboration.healthgrid.org/>) is an already established reference in Nuclear Medicine image modelling. The recent extension in direction of external beam radiotherapy and dosimetry modelling (Gate V6.1) must be assessed in a context of molecular radiotherapy and brachytherapy. The research project will mostly evaluate and increase the capabilities of Gate for radiopharmaceutical dosimetry (mostly beta or beta/gamma emitters).

Our multidisciplinary group consists in 2 senior scientists, one Post-Doc, 2 PhD students and 3 Master students, all working in the domain of radiopharmaceutical dosimetry and scientific computing.

Our areas of interest lie in all aspects of molecular radiotherapy, at various scales (cellular, small animal and clinical scale), and involve both quantitative imaging (clinical or preclinical) and absorbed dose calculation (micro- and macro-dosimetry).

Our computing cluster (20 bi-pro Xeon Westmere 12-core with 16 Gb RAM each and a 16Tb archive system) is able to address most problems associated with Monte-Carlo modelling of radiopharmaceutical imaging and absorbed dose calculation. An access to international grids is also possible for larger problems that require additional computing capabilities.

The candidate will have a strong background in scientific programming (C++, scripting languages such as Tcl, Perl, Python, etc.).

A good knowledge of Gate is recommended.

Some knowledge in Nuclear Medicine, Medical Physics and dosimetry would be appreciated.

The project is on-going, so the candidate should be available as soon as possible.

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References:

Jan S, et al. (2011). "GATE V6: a major enhancement of the GATE simulation platform enabling modelling of CT and radiotherapy". *Phys Med Biol* **56**: 881-901.

Roeske JC, Aydogan B, Bardiès M and Humm JL (2008). "Small-Scale dosimetry : Challenges and future directions". *Semin Nucl Med* **38**: 367-383.

Bardiès M, Buvat I (2011). "What are the specifics in image quantification for dosimetry ? " *Q J Nucl Med Mol Imaging* **55**: 5-20.

Lassmann M, Chiesa C, Flux, G and Bardiès M (2011). "EANM Dosimetry Committee Guidance Document: Good Practice of Clinical Dosimetry Reporting". *Eur J Nucl Med Mol Imaging* **38**(1): 192-200.