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Job Offer

Research Associate (post-doc) in PET tracer development

Job Profile	
CSS	**7**
Offer description	The INSERM U1253 laboratory is recruiting a research associate (with 0 to 3 years post-doc experience) to conduct a research project funded by the ANR (French Research National Agency) aiming at developing PET tracers for α-synuclein. The protein α-synuclein accumulates and aggregates in the brain of Parkinson disease patients, causing the death of dopaminergic neurons in the striatonigral pathways. Being able to monitor the α-synuclein load in PD patients would enable a finer diagnostic and stratification of patients to *i)* better understand disease progression and the relation between α-synuclein load and symptoms and *ii)* monitor the efficacy of new therapies. However, so far there is no PET radiotracer with a high specificity for α-synuclein, and binding to other aggregates such as β-amyloid is common. The aim of this project is to screen new molecules *in vitro* to establish their pharmacological properties using binding experiments on both cell culture preparations and brain sections and once a suitable candidate will have been identified, proceed with its *in vivo* characterisation and validation by preclinical PET-CT in animal models. The ideal candidate would have knowledge in pharmacology, neuroscience and neurodegenerative diseases (ideally Parkinson Disease) and previous experience (PhD or post-doc) of *i)* cell culture, *ii)* in vitro binding experiments and *iii) in vivo* imaging (preferentially, but not compulsory, PET and tracer development). Depending on the profile of the candidate, the lab will support competitive candidates to apply to French Fellowship opportunities.
Researcher profiles	☐ First-Stage Researcher *(PhD candidate)* ☒ Recognised Researcher (*with less than 4 years research experience after PhD)* ☐ Established Researcher *(with more than 4 years research experience)* ☐ Leading Researcher
Research Fields (2 max.)	☐ Biological Sciences ☐ Chemistry ☐ Computer Science ☐ Engineering ☐ Environmental Science ☐ Ethics in Health Sciences ☐ Medical Sciences ☒ Neurosciences ☒ Pharmacological Sciences ☐ Physics ☐ Technology ☐ Other (specify):
Main Activities	• Cell cultures. • Tissue preparation & sectioning. • Performing *in vitro* binding (competition, saturation) experiments on cell culture preparations and brain (section and/or homogenates) with new ligands. • Interpretation of *in vitro* data to select best compounds for radiolabelling. • Performing PET-CT scans in small animals. • Analysis of the PET images and data.

	• Interpretation and preparation of the data for publication, preparation of manuscript.
Associated Activities	• Animal handling. • Preparation of animals for PET scans. • *In vitro* experiments: immunohistochemistry, histology, Western blot.
Specific Requirements or Constraints	• Experience in neuroimaging (preferably PET, but other modalities accepted) • Holding an animal experimentation license and previous experience in animal experimentation would be a plus.
Skills/Qualifications	• Excellent understanding of pharmacology • Previous experience in performing binding experiments.
Required Experience	☒ 0 to 2 years ☒ 2 to 4 years ☐ 4 to 10 years ☐ >10 years **Fields:** Neuroimaging, animal models
Required Education Level or Diploma	• PhD in biology, pharmacology or neuroscience.
Required Languages	• English and/or French
Hosting Unit	
Code	U1253
Name	iBrain
Director	Dr Catherine BELZUNG
Composition	Equipe 4: Molecular and morpho-functional imaging
Address	Bat Planiol, UFR de Médecine 10 Boulevard Tonnellé 37032 Tours Cedex 01 France
Website	• https://ibrain.univ-tours.fr/
Contract	
Type	• Fixed duration contract
Duration	• Depending on salary: 20 to 24 months
Salary	• 34 908 – 39 636 € (yearly gross salary)
Envisaged Start Date	• 15th of April 2024

Application

Applicants must send a CV and a cover letter to: Dr Hervé Boutin (herve.boutin@inserm.fr) or Dr Sylvie Chalon (sylvie.chalon@univ-tours.fr)

Contact for further information (name, telephone/mail): Dr Hervé Boutin (herve.boutin@inserm.fr) or Dr Sylvie Chalon (sylvie.chalon@univ-tours.fr)

Deadline for application: 15th of March 2024