



## Post-doctoral position in Neuro-Immunology RHU BETPSY

### POSITION DESCRIPTION

The “BETPSY” Project (Biomarkers in autoimmune EncephaliTis and Paraneoplastic neurological Syndromes, See: <https://www.rhu-betspy.fr/>) coordinated by Prof. Jérôme Honnorat has been selected in 2019 as part of the “Programme Investissements d’Avenir – Hospital-University Research”. It benefits from 5 years funding from the National Research Agency for the execution of its scientific program (care, experimental and clinical research, and teaching). The objective is to develop diagnostic tools for these diseases and thus improve the patient care.

Under the responsibility of the BETPSY project coordinator, the post-doctoral fellow in neuro-immunology will be in charge to develop a mouse model of Paraneoplastic neurological syndromes. The position will be based at the Institute MeLis in Lyon, in the SynatAc team headed by Jérôme Honnorat ([https://inmg.fr/melis/en/team\\_honnorat.php](https://inmg.fr/melis/en/team_honnorat.php)). The laboratory provides a dynamic environment dedicated to degenerative and autoimmune syndromes affecting neurons and muscles. The institute comprises 7 research teams with more than 90 scientific staff. We are also connected to the clinic with the “Centre de Référence des Maladies Rares” dealing with diagnosis of autoimmune encephalitis and paraneoplastic neurological syndromes at Pierre Wertheimer Neurological Hospital. The institute is located in the lively city of Lyon only 2 hours from Paris and south of France.

### MISSIONS:

Candidate is expected to develop an animal model of paraneoplastic neurological syndrome to study the immune mechanisms of tolerance breakdown and brain immune attack. The post-doc fellow will contribute to design tumor models, schemes of immunization, immunotherapies, and to analyze the immune response in the brain and in the tumor microenvironment. The set-up of a functional exploration of patients’ immune response would be an interesting development of the project.

### SKILLS

- Experience in immunology, in vivo models, in mouse behavioral tests and human cell biology
- Grade 2 certification in conception of experimental procedures is mandatory but Grade 1 certification in conception of experimental procedures in murine models is a plus.
- Mouse manipulation, injections and biopsies as well as managing future breeding of transgenic lines in cooperation with the animal facility
- Ex-vivo manipulation of immune cells (purification, amplification, and analysis of cytotoxicity, antigen specificity, cytokines)
- Application of other immunological methods (Flow Cytometry, ELISA)
- Analysis of brain and tumor by immuno-histochemistry or immuno-fluorescence with confocal microscopy acquisition and image analysis with FiJi/ImageJ software
- Cell culture and genetic manipulation of tumor cell line
- Keeping up-to-date bibliography of the field
- Presentation and discussion of results in publications
- English speaking

### FORMATION AND REQUIRED EXPERIENCE

The applicant is expected to have a PhD in Immunology, Neuro-immunology, or related



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discipline, preferably with a first post-doctoral experience

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Full time during two years

Salary: According to the public service pay scale

Position available now

**CONTACT**

*For further informations regarding the application, contact Lucie Aliouane, the BETPSY manager*

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*Send your application to :*

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