

POST-DOCTORAL POSITION NEUROIMMUNOLOGY / PARASITOLOGY

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Team 'Eukaryotic Intracellular Parasites: Immunity and Chemoresistance'
Center for Pathophysiology Toulouse-Purpan

Background

Inadequate CD8 T cell control of pathogens in the central nervous system (CNS) may result in deadly neuroinflammation and tissue damage. *Toxoplasma gondii* is a prevalent parasite that persists in the brain and can cause encephalitis in case of suboptimal T cell surveillance. The mechanisms of MHC I antigen presentation have been studied in lymphoid tissues but little is known on the modalities of parasite T cell recognition in the CNS, where the parasite chronically resides. We have recently shown that MHC I presentation of *T. gondii* tachyzoite antigens by CNS neurons is pivotal for parasite control by CD8 T cells ([Salvioni et al](#), Cell Rep 2019 Jun 11;27(11):3254-3268).

Aim of the project

We are now investigating (i) the mechanisms that allow parasite cysts (the chronically persisting stage of parasite) to evade CD8 T cell recognition, (ii) the formation of protective resident memory CD8 T cells in the infected brain, and (iii) how CD8 T cell-neuron cross-talk impacts parasite-induced behavioral alterations of infected mice.

The post-doctoral researcher will work on one or a combination of these projects. He/she will use controlled experimental settings that enable to study chronic *T. gondii* infection leading to latency vs. encephalitis, molecular and cellular immunology approaches, behavioral and transcriptomic analyses. This interdisciplinary project is a collaboration with F. Masson (Liblau/Saoudi team, CPTP) and a neuroscientist E. Suberbielle (Dunia team, CPTP).

Laboratory and position details

Our [team](#) is hosted in the Center of Pathophysiology of Toulouse-Purpan ([CPTP](#)), a research Centre affiliated with Inserm, CNRS and Toulouse University. The CPTP provides a stimulating environment to perform state-of-the-art research in immunology and infectious diseases, with integrated on-site [technological facilities](#). Research teams at the CPTP host international trainees of various nationalities, ranging from undergraduate students to postdocs. External seminars and lab meetings are held in English. The CPTP is located in Toulouse, a dynamic city in the Southwest of France, 1-hr away from Paris by plane.

The post-doctoral fellow will work in the context of an ANR-sponsored project ([MICCHROB](#)). Depending on experience, net salary may range from 2036 € to 2337 € / mo, including health benefits. The position is expected to start between **January and March 2019**.

Candidate profile

Candidates must be **highly self-motivated**, at ease with team work and able to independently organize their workload. Prior knowledge in neuroimmunology and/or infectious diseases as well as prior research experience in transcriptomics and/or flow cytometry is beneficial but is not mandatory. **International candidates are encouraged to apply.**

Applicants should email a CV, a short statement of research interests and future goals plus the names of 2 references with contact information to **N. Blanchard** : nicolas.blanchard@inserm.fr
On-site interviews of short-listed candidates may be organized.