

A postdoc position is available at the Institut Pasteur Paris, in the **signalling and host-parasite interactions** research group, headed by Dr Najma Rachidi and the **Antibody engineering platform**, headed by Dr Pierre Lafaye to generate nanobodies against *Leishmania* CK1.2 and to assess their neutralizing properties. (<https://research.pasteur.fr/en/team/signalling-and-host-parasite-interactions/>; <https://research.pasteur.fr/fr/team/antibody-engineering/>).

A common feature of the most successful intracellular pathogens is the efficient manipulation of their host cell. Most molecular mechanisms governing the subversion of host cell signalling by pathogens involve release of pathogen-derived molecules into the host cell cytoplasm and direct interaction with host signalling proteins. In its mammalian host, *Leishmania* parasite, the causative agent of leishmaniasis, is phagocytosed by macrophages but, unlike other pathogens, survives and proliferates. *Leishmania*, through the release of effector molecules, subverts its host cell to insure its survival. One of these effectors, *Leishmania* Casein Kinase 1 (L-CK1.2), is a signalling protein kinase, essential for intracellular parasite survival. L-CK1.2 fulfils a significant part of its function in the macrophage, by regulating processes such as trafficking, translation or apoptosis, indicating that it might be a master regulator of host cell signalling, regulations essential for intracellular parasite survival. This project will consist in developing nanobodies as novel anti-parasitic therapies. After generating and selecting the nanobodies, they will be characterised *in vitro* and against *Leishmania* parasites; and then their neutralising properties will be assessed against infected macrophages. Apart from their potential as treatments, we will also explore their potential use as tools to study L-CK1.2.

We are looking for a motivated post-doctoral researcher with a **strong background** in cell culture, molecular biology and protein biochemistry. Expertise in parasitology is not required but would be a bonus. The candidate should be able to work in a multi-disciplinary environment, have a solid record of scientific achievement and a decent level in English. The contract is for two years and will start no later than the 2nd of January 2025, before would be better.

Please send a cover letter, a CV with a full publication list and contact information of three referees to Najma Rachidi at najma.rachidi@pasteur.fr. Applications should be sent before the 22nd of November 2024.