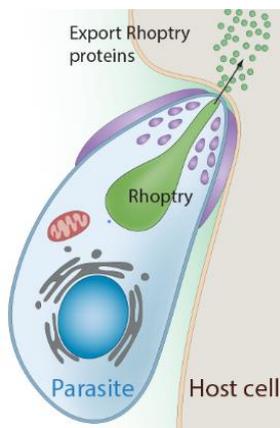


A Post-Doc position is available to join Maryse Lebrun team at the Laboratory of Parasite Host Interactions in Montpellier (France). This is an exciting opportunity **to study an original secretion machinery in the parasites *Toxoplasma* and *Plasmodium***.

*Plasmodium* and *Toxoplasma* are obligatory intracellular eukaryotic parasites. The ability of these parasites to cause disease depends on the coordinated secretion of specialized secretory organelles. One of them, the rhoptries, are particularly important: they inject parasite proteins directly in the cytoplasm of host cells, not only for invasion, but also to hijack host functions crucial to establish and maintain infection. However, how eukaryotic parasites secrete and inject rhoptry effectors into cells remains an enigma. The biology of this sophisticated cellular mechanism has no known equivalent in nature and is truly fascinating.



Our aims are to explore the mechanisms that trigger rhoptry exocytosis upon binding of the parasite to the host cell; to provide insights into fusion machinery of rhoptry with the parasite plasma membrane, and to understand how the rhoptries deliver their content into the host cell membrane.

The applicant will contribute to understanding how the rhoptry content cross the plasma membrane of the host cell.

You will join a highly interactive team of Post-Docs and PhDs working hand-in-hand in this multidisciplinary study funded by an ERC Advanced Grant.

**The candidate:** Applicants should have a proven track record in cell biology. Applicants are expected to carry on experiments that involve cellular imaging and molecular biology, while working closely with other group members who bring complementary research and skills. Experience in parasitology and/or whole genome screen using CRISPR/Cas9 will be a plus. Motivation to work in a multidisciplinary team is essential.

**Applications** must include a cover letter with a brief statement of research experience, technical expertise and interests, a CV, a list of publications and contact details of two referees. They should be sent to: [maryse.lebrun@umontpellier.fr](mailto:maryse.lebrun@umontpellier.fr) @Lebrun43782700

The appointment will be financed by an ERC Advanced Grant for **up to four years**. The position is available from May 2021.

**To learn about us** [cutt.ly/sw2i2ZC](https://cutt.ly/sw2i2ZC) **and the project:**

- **An Alveolata secretory machinery adapted to parasite host cell invasion.**  
Aquilini E, Cova MM, Mageswaran SK, Dos Santos Pacheco N, Sparvoli D, Penarete-Vargas DM, Najm R, Graindorge A, Suarez C, Maynadier M, Berry-Sterkers L, Urbach S, Fahy PR, Guérin AN, Striepen B, Dubremetz JF, Chang YW, Turkewitz AP, Lebrun M.  
**Nat Microbiol.** 2021 Jan 25. doi: 10.1038/s41564-020-00854-z. <https://rdcu.be/cebhj>
- **A lipid-binding protein mediates rhoptry discharge and invasion in *Plasmodium falciparum* and *Toxoplasma gondii* parasites.**  
Suarez C, Lentini G, Ramaswamy R, Maynadier M, Aquilini E, Berry-Sterkers L, Cipriano M, Chen AL, Bradley P, Striepen B, Boulanger MJ, Lebrun M.  
**Nat Commun.** 2019 Sep 6;10(1):4041. doi: 10.1038/s41467-019-11979-z.PMID: 31492901

**To learn more about Montpellier :** <https://www.youtube.com/watch?v=2A-Zo-fqXWU>