

Internship position Master-2. 6 months

proposé au CNRS et à l'Université d'Orléans – Financé par la Fédération de Recherche en Infectiologie (FÉRI) de la région Centre

Host laboratories	Laboratoire INEM, CNRS d'Orléans 3B, rue de la Férollerie, 45071 Orléans, France <i>Equipe : Neurotoxicité et Développement</i> LBLGC USC INRAE 1328, Université d'Orléans 1 rue de Chartres, 45067 Orléans, France <i>Equipe : Entomology et Biologie Intégrée</i>
Supervisors	Pr Stéphane Mortaud, professeur des Universités, Laboratoire INEM stephane.mortaud@cnrs-orleans.fr ; tel : +33 (0) 235.25.79.30 Pr Steeve Thany, professeur des Universités, Laboratoire LBLGC steeve.thany@univ-orleans.fr ; tel : +33 (0) 238.41.70.58 Dr Emiliane Taillebois, Maître de conférences laboratoire LBLGC emiliane.taillebois@univ-orleans.fr ; tel : +33 (0) 238.49.46.92
Project title	Selection of new acaricides compounds using an integrated strategy : evaluation of flupyradifurone efficiency against ticks and its neuro-inflammatory side-effects on mammals
Summary	<p>Ticks are important born-diseases vectors responsible for the transmission of Lyme disease or other pathologies linked to arboviruses. In recent years, we observed an increase in the development of ticks resistant to currently used acarides, that also have negative side-effect on non-target species. In this context, there is a crucial need for global strategy to study the mode of action of acaricide compounds, in order to anticipate possible resistance mechanisms in ticks and to precisely evaluate the risks for non-target species such mammals.</p> <p>The present project aims to implement an innovative integrated strategy for the evaluation of the acaricide potential a new pesticide, the flupyradifurone (FPF), compared to the DEET (used as a reference). To address this issue, we will evaluate FPF efficiency on ticks nervous system and its neurotoxicity for mammals.</p>
Internship organization	The first 3 months will be devoted to the study of FPF and DEET neurotoxicity on the proliferation and growth of astro-microglial culture and/or Neural Stem Cell culture (INEM laboratory). Inflammatory parameters will be also study. The last 3 months will correspond to the evaluation of FPF and DEET effect on natives neuronal receptors of the tick <i>Ixodes ricinus</i> , using the technic of membrane micro-transplantation in xenopus oocyte and electrophysiological recording with two-elctrode voltage-clamp recording (LBLGC laboratory).
Starting date : january 2022 (preferentially)	
Application : send your CV, cover letter, results of Licence (L3) and Master 1.	
Closing date : 30th november 2021	