

Funded Ph.D position-LBLGC USC INRAE 1328

University of Orléans, France

Host laboratory	LBLGC USC INRAE 1328 University of Orléans 1 rue de Chartres, 45067 Orléans, France Team : Entomology and Integrated Biology
Supervisor (email)	Prof. Steeve H. Thany steeve.thany@univ-orleans.fr Phone : +33 (0) 238 41 70 58
Project title	<i>In vitro</i> evaluation of the pharmacological properties of neonicotinoids, sulfoximines and butenolides on insect and mammalian neuronal nicotinic acetylcholine receptors
Summary	<p>Neuronal nicotinic acetylcholine receptors (nAChRs) are of particular interest because they are the main target of neonicotinoid insecticides, which are important in agriculture and veterinary medicine for controlling insect pests, and preventing transmission of insect borne diseases.</p> <p>In the present study, we aim to further characterize the pharmacological properties of mammalian neuronal nAChRs, in particular the binding properties of neonicotinoid, sulfoximine and butenolide insecticides. The project will involve to compare insect and mammalian neuronal nAChRs.</p>
Methods and technical skills	<p>Two main strategies will be used : (1) electrophysiological recordings using Two-electrode voltage clamp and (2) calcium imaging method.</p> <p>The hired Ph.D student will have to perform cRNA preparation, oocyte injection, voltage clamp and calcium imaging recordings.</p>
Pre-selection process	<p>A pre-selection will be made based on documents provided by candidates (Complete CV, letter of recommendation, the results obtained in the master program,...).</p>
The university of Orléans	<p>The university of Orléans is located in the south of Paris (1h15 from Paris) and 20 min from the downtown of Orléans. It comprises 26 research laboratories and around 20 000 students. Life in Orléans is wonderful and not expensive. The Ph.D student could live in the downtown of Orléans like many students. He/Her will have access to all laboratory's equipment.</p>
Starting date	: January 2021
Salary	: around 1400-1450 €/month (health insurance is paid by the University)