

Titre de l'annonce	<h2>3-year postdoctoral position</h2>
3 mots clé -	Channelopathies, Cell excitability, Sodium Leak Channel
Ville	Montpellier
Pays	France
Texte de l'offre	<p>We are seeking a highly motivated and skilled candidate for a 3-year (1-year renewable twice) postdoctoral position to characterize, from cellular to behavioral levels, animal models of NALCN-related diseases. The project will be performed in the framework of the RestoreLeak project, funded through the ERA-NET NEURON 2021 call for Transnational Research Projects on Neurodevelopmental Disorders (https://www.neuron-eranet.eu/projects/RestoreLeak/). The candidate will be mentored by Dr Arnaud Monteil, coordinator of RestoreLeak, in Dr Philippe Lory's team ("Ion channels in neuronal excitability and diseases", at IGF (https://www.igf.cnrs.fr) Montpellier, France.</p> <p>Scientific context: The IHPRF1 (Infantile, Hypotonia, with Psychomotor Retardation and Characteristic Facies 1) and CLIFAHDD (Congenital contractures of the Limbs and Face, Hypotonia, and Developmental Delay) syndromes are two severe neurodevelopmental disorders linked to mutations in the NALCN gene. The sodium (Na⁺) leak channel NALCN is a crucial regulator of cell excitability by setting up the resting membrane potential of neurons and endocrine cells (Cochet-Bissuel et al, 2014; Guérineau et al, 2021). The IHPRF1 pathogenic variants are inherited autosomal recessive loss-of-function while CLIFAHDD variants are dominant, de novo gain-of-function (Chong et al, 2015; Bouasse et al, 2019). Both syndromes display an onset early in infancy and may lead to premature death. Patients exhibit a large panel of symptoms of variable severity, and there is yet no available treatment. Over the last years, we have developed a wide range of tools (from cell to animal models) to study the role of NALCN in both physiological and pathological conditions. Recently, we have generated animal models that carry NALCN mutations to characterize the corresponding developmental disorders. The first objective of the project will be to characterize the physiological defects in these models. This will first be performed by using a combination of techniques including, but not restricted to, electrophysiological recordings (EEG, patch-clamp), calcium imaging, hormone release measurement, and at the behavioral levels using motor/cognitive tests. In a second step, gene therapy approaches will be assessed in those animal models to make the proof of principle that they represent relevant therapeutic strategies to restore normal phenotypes.</p> <p>Essential Requirements</p> <ul style="list-style-type: none"> ■ PhD or MD/PhD with a background in Physiology and/or Neuroscience ■ Excellent research records and academic activities ■ Strong expertise in wet-lab experience with advanced techniques (i.e., Patch-clamp, Viral-mediated gene transfer in animal models, Calcium imaging) and quantitative data analysis ■ Experience in mouse behavior assessment and analysis is a pre-requisite. Holding an EU accreditation to conduct experiments in animals will be a plus. ■ Be imaginative, open, dynamic, team-worker, strongly self-driven and well organized.

	<p>Scientific environment: The lab 'Institut de Génomique Fonctionnelle' (IGF, Institute of Functional Genomics) is a multidisciplinary Research Center dedicated to studies of the physiological and pathological cellular communications in neurobiology, endocrinology, oncology and cardiology. It gathers about 250 researchers, engineers and technicians, and provides a dynamic and challenging environment, with access to high-level technological facilities. The candidate will benefit from a stimulating, interactive and collaborative research environment, as well as an access to state- of-the-art facilities from the BioCampus Service Unit (https://www.biocampus.cnrs.fr).</p> <p>Salary: Net income: 2100-2200 € /month</p> <p>How to apply Applicants should send an e-mail to Dr. Arnaud Monteil (arnaud.monteil@igf.cnrs.fr) with a CV including a list of publications and technical expertise, a description of research interests and at least two names of individuals willing to act as references for the candidate. Application review will begin immediately and will continue until a suitable candidate is selected. The position will preferentially start July 1st, 2022</p>
Date de fin de publication :	01/07/2022
Type d'emploi	Post-Doctorat - Post-Doctoral position
Type de contrat	CDD (1-year renewable twice)
Rémunération brut mensuelles	2100-2200 € /month (Net)
Date limite de candidature	01/07/2022
Date début de fonction	As soon as possible
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