

### JOB DESCRIPTION

Job Title: Deciphering the timekeeping mechanisms and functions of brain circadian clocks

### Job Summary:

In mammals, circadian rhythms of physiology are regulated by a main circadian clock; the hypothalamic suprachiasmatic nucleus. Central clock mechanisms are also present in the epithalamic lateral habenula (LHb), a key nucleus for the regulation of monoamines activity (dopamine, serotonin). However, the molecular and cellular mechanisms as well as neurobiological role are not well known. Thus, using molecular, physiological and behavioral approaches, the principal objectives of the recruited postdoctoral fellow will be to determine to role of the LHb in the control of circadian rhythms in behavior and physiology.

# Job Description:

Research lab: INCI, "Light, vision and the brain" team (Circadian Reward group).

## Group leader and supervisor: Jorge MENDOZA

The 1-year post-doctoral program will be divided according to two main objectives.

1. To determine the role of the LHb clock in the rhythmic control of circadian physiology and behavior.

To answer this question, the recruited postdoctoral scientist will use a viral approach to specifically ablate the circadian clock in LHb neurons and evaluate the consequences on behavior, physiology and gene expression.

2. Characterize the impact of temporally silencing the LHb in physiology and behavior.

To strengthen the project, the post-doctoral scientist will use optogenetics and chemogenetic (DREADD) approaches in order to inactivate the LHb clock and to evaluate the effects on circadian rhythms of behavior and physiology.

### Main research field:

Biological sciences, Neurosciences

Requirements: The ideal candidate will be a highly motivated scientist with a relevant PhD in Systems Neuroscience or related areas and have experience in research in rodents (in vivo and ex-vivo). Expertise in circadian biology and opto/chemo-genetics will be highly valued.

Eligibility criteria: Applicants must have defended their PhD after January 2016. The PhD diploma must have been awarded by an institution other than the University of Strasbourg. In case the PhD has been obtained at the University of Strasbourg, a minimum of two-year international post-doctoral experience is required. The application file consists of a detailed CV, a copy of the doctoral diploma, thesis report, and a covering letter.

## JOB DETAIL

Type of contract: One-year contract (CDD)

Status: Post-doctoral researcher

Company / Institute: Université de Strasbourg / Institute of Cellular and Integrative Neuroscience (INCI-CNRS UPR3212)

Country: France
City: Strasbourg
Postal Code: 67000

Street: 8 allée du Général Rouvillois

#### APPLICATION DETAILS (mandatory)

Provisional start date: 01/12/2020-01/01/2021

Application deadline: 30/09/2020

Application e-mail: jmendoza@inci-cnrs.unistra.fr

Application material: A curriculum-vitae, a cover letter and the name of two references for recommendation