

POST DOCTORAL POSITION IN NEUROSCIENCES

A position is available for a 2 year full-time Post-Doctoral Fellow funded by the Neurodis Foundation on a project “Rescue of vision by adeno-viral mediated ectopic expression of melanopsin in the non-human Primate” at Inserm U846 in Lyon (France).

Job description:

The research project aims to explore the hypothesis that ectopic expression of melanopsin in retinal ganglion cells of primates can restore visual sensitivity. Melanopsin is an invertebrate-like photopigment that displays bistable photosensitive sensory transduction and chromophore regeneration properties *in vitro* (Panda et al., 2005) and *in vivo* (Mure et al., 2007, *in press*). Ectopic expression of melanopsin confers light sensitivity to cells that non-light responsive. In the project, the human melanopsin sequence will be expressed in primate ganglion cells by AAV2 vectors. The successful candidate will join the department of chronobiology in INSERM U 846, Stem Cell and Brain Research Institute. He/she will interact in the research project with the departments of chronobiology, stem cells and integrated neuroscience. Research tasks will involve assessment of visual capacities in primates using visual discrimination tasks, analysis of eye movements, pupil responses, optokinetic reflex and monitoring of sleep and circadian rhythms. Brain imaging using fMRI will be used to assess visual function at the cortical level. Facilities available in INSERM U846 include a large primate colony, high-speed eye tracking and pupil measurement systems, setups for electrophysiological and behavioural testing of awake primates, telemetry based polysomnographic sleep and circadian activity monitoring systems, complete facilities for molecular biology and histology. fMRI facilities are available locally, at the CERMEP imaging facility (5 min. walk from the lab). The post-holder will be responsible for (1) the design, conduct, analysis and writing-up of experiments in conjunction with the Principal Investigators, (2) disseminating the results at international conferences and (3) participating to the day-to-day running and scientific activity of the research group and laboratory (conferences, seminars, journal clubs).

Requirements:

The candidate should have a PhD (completed **before** sending his/her application) and a background in the fields of circadian or visual neuroscience, behaviour and physiology. Experience in animal and preferably primate research (behaviour, neurophysiology or anatomy) is desirable. The candidate should be capable of conducting autonomous scientific work and possess a strong motivation to learn new and diverse techniques. A good knowledge of English is necessary.

Expected start date: earliest: November 1st 2009

Gross income: 30.000 euros/year

Candidates should send a CV (with representative publications attached as pdf) and the name of 3 referees by mail to: contact@fondation-neurodis.org and howard.cooper@inserm.fr

Application deadline in PDF format: September 20, 2009, shortly followed by an interview organized by the NEURODIS Foundation (phone conference will be possible)

For further technical or scientific information: Dr Howard M Cooper howard.cooper@inserm.fr or for financial information: contact@fondation-neurodis.org