Postdoctoral fellows:

Cardiovascular and ventilatory effects of neuropeptides in the trout brain.

Effects of endocrine disruptors.

Many neuropeptides and their G-protein coupled receptors (GPCRs) are present within the brain area involved in ventilatory and cardiovascular regulation but only a few mammalian studies have focused on the integrative physiological actions of neuropeptides on these vital cardio-respiratory regulations. Because both the central neuroanatomical substrates that govern motor ventilatory and cardiovascular output and the primary sequence of regulatory peptides and their receptors have been mostly conserved through evolution, we have developed a trout model to study the central action of neuropeptides on cardio-ventilatory regulation (blood pressure, heart rate, baroreflex, ventilatory movements…).

A postdoctoral position is available to investigate the central actions of newly discovered fish or invertebrates neuropeptides (urotensin II, urotensin-related peptides, crustacean cardioactive peptide ...) after their intracerebroventricular injection within the brain of the trout. In addition, we will also determine the central interaction between the endocrine disruptor fluoxetine, and the effects of peptides. Finally, we might compare the genes being up/down regulated following each experimental manipulation.

The work will be conducted within the framework of an Interreg IVA programme the intention of which is to create R&D Peptide Research Network of Excellence (PeReNE, http://www.perene-project.eu) including different partners in France and England. The main location will be at the Laboratory of Neurophysiology at the University of Brest, France. There will be also a close collaboration with the University of Rouen (Dr. Jérôme LEPRINCE, Primacen, IFRMP23), the University of Le Havre (Dr. Thomas KNIGGE, Laboratoire d'Ecotoxicologie – Milieux Aquatiques), as well as the University of Portsmouth (Dr. Alex Ford, Institute of Marine Sciences Laboratories, School of Biological Sciences)

Candidates must hold a PhD degree in biology or equivalent. Competences in cardiovascular physiology and/or endocrinology as well as interest in the field of fish physiology are appreciated. Technical skills in molecular biology and/or biological signal processing are most welcome. The project will start as of January 2013.

Please send your complete application including CV, letter of motivation, name and address of two referees via email (preferably single pdf file) to the following contact addresses:

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