

INVESTMENTS IN EDUCATION DEVELOPMENT

Postdoctoral research fellow position (tutor David Doležal)

Project title: *Diapause and photoperiodism in insects*

Hosted by: *Laboratory of Molecular Chronobiology*

Biology Centre of the Academy of Sciences, Czech Republic

The position will be co-financed by the European Social Fund and the state budget of the Czech Republic.

Workplace: The laboratory of chronobiology has excellent equipment for *Drosophila* work and especially for research of non-model insect species. The Postdoc will have instant access to all necessary equipment, including a laser scan confocal microscope with image analysis facility, two Real-Time PCR cyclers, equipment for RNA and DNA microinjections into insect embryos, a tissue culture room and several environmental cabinets dedicated for his/her project and custom made activity monitors for behavioral experiments (among other more mundane instruments for carrying out routine laboratory operations).

www page:

<http://www.entu.cas.cz/en/departments/department-of-molecular-biology-and-genetics/laboratory-of-molecular-chronobiology/>

Position summary: Despite the vital importance of the photoperiodic (seasonal) clock for organism survival, its molecular basis remains unclear. Our goal is to shed light on molecular mechanism of this clock and localize genes important for insect photoperiodism.

The research will take advantage of robust diapause response in the Linden bug, *Pyrrhocoris apterus*. The advantage of this model species includes well established gene knock-down by systemic RNA interference, our on-going transcriptome sequencing project provides data for comparing expression of different tissues in diapause and reproductive animals and insect size allows microsurgical manipulations.

Postdoctoral fellow will compare the transcriptome of diapause and reproductive animals in with special focus on brain transcripts. The most interesting gene products will be localized at the RNA or protein levels and their involvement in photoperiodic clock will be tested functionally.

The work will include a **2-month stay abroad** at laboratory of Charlotte Helfrich-Förster (Würzburg University), world recognized expert in Insect neuroanatomy and chronobiology.

Participation of postdoc in two major international conferences is also covered by this project.

Pedagogical activities of *Postdoctoral fellow*: The researcher will closely interact with two PhD students involved in related research project and approximately two undergraduate students. Postdoc will especially consult their results and experimental design. Pedagogical activities also include interaction with collaborators studying cold acclimation and physiology in *Pyrrhocoris apterus*, therefore postdoc will have advice from experts in this diapause related fields.

Duration of contract: Selected candidate will be offered a position for up to 34 months starting from September 1st, 2012. The salary is about 1800 EUR brutto per month and this amount corresponds to a good living standard in the Czech Republic. Extension of the contract beyond 34 months may be possible, pending renewed funding.

Qualifications: Interested candidates must have successfully obtained their Ph.D. degree in a relevant discipline after March 29th, 2008. A good knowledge of English language (corresponding to CAE or equivalent) is required. Some knowledge of the Czech language will prove useful.

How to apply: Interested candidates should apply no later than July 31st, 2012 by submitting the following documents and information to **A. Navrátilová** (navratilova@bc.cas.cz):

- Cover letter explaining the candidate's research interests
- Detailed CV including a list of publications and other achievements
- Certified academic transcripts and diplomas (scanned copies)
- List of minimally two referees who can testify on the candidate's character and performance
- Declaration of the candidate's proficiency in English

Announcement of results: The Evaluation Committee will convene in August 2012 and candidates will be immediately informed of the results.