

## INVESTMENTS IN EDUCATION DEVELOPMENT

### **Postdoctoral research fellow position (tutor František Marec)**

**Project title: *The role of sex chromosomes in speciation of Lepidoptera***

**Hosted by: *Laboratory of Molecular Cytogenetics***

***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:** Being a part of the Department of Molecular Biology at the Institute of Entomology BC ASCR the laboratory pursues basic research on structure and function of nuclear genomes in insects and other arthropods with emphasis on key questions of chromosome biology and evolution, using advanced methods of molecular cytogenetics along with standard cytogenetic techniques. Current projects include molecular differentiation and evolutionary history of sex chromosomes in Lepidoptera, (2) development of genetic sexing strains in the codling moth, and (3) control of structure and length of telomeres in insect chromosomes.

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

#### **Position summary:**

The fellow will pursue research in the field of insect molecular cytogenetics. Specifically, the fellow will participate in the study of sex chromosomes in selected species of moths and butterflies with the aim to test a hypothesis on the disproportional role of the sex chromosomes and sex-linked genes in population divergence and speciation. This research will include: (i) analyses of sex chromosome constitution using methods of standard and molecular cytogenetics, (ii) identification of orthologous sex-linked genes and their between-species comparison, and (iii) synteny mapping of sex-linked genes. The application of next generation sequencing and bioinformatic tools for sequence data analysis is also expected.

**The work will include an 6-month stay** abroad at the Inst. of Integrative Biology, University of Liverpool, UK

**Pedagogical activities:** supervision of student projects, assistance at practical courses in Cytogenetics

**Other activities:** presentation of research results in international workshops and conferences.

#### **Duration of contract:**

Selected candidate will be offered a position for up to 34 months starting from September 1<sup>st</sup>, 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 29<sup>th</sup>, 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 31<sup>st</sup>, 2012** by submitting the following documents and information to **A. Navrátilová** ([navratilova@bc.cas.cz](mailto: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.