

INVESTMENTS IN EDUCATION DEVELOPMENT

Postdoctoral research fellow position (tutor František Sehnal)

Project title: *Novel ways of silk exploitation*

Hosted by: *Laboratory of Applied Insect Physiology*

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:

Entomological Institute,
Biology Centre of the Academy of Sciences
Branisovska 31, 370 05 Ceske Budejovice, Czech Republic
<http://www.bc.cas.cz>

Research on various aspects of insect physiology and developmental regulations has long tradition in the Institute. The Laboratory of Applied Insect Physiology was created in 2011 to promote practical exploitation of research findings. Current investigations carried on in this Laboratory include environmental and hormonal control of insect diapause, action of *Bacillus thuringiensis* Cry toxins (including genetically modified crops containing Cry genes and expressing corresponding insecticidal proteins), and new ways of silk exploitation. Insect silk is also studied in respect to its evolution and composition in Trichoptera and Lepidoptera.

Position summary:

Silk of the domestic silkworm and a dozen of other lepidopteran species has been used as textile material for millennia. The recent advance of science has opened door to a wide range of new ways of silk exploitation. For example, new types of silk fibers can be obtained by transferring genes encoding silk proteins from diverse silk-spinning insects into the silkworm. Propagation of transgenic silkworms can be facilitated by induced parthenogenesis in selected individuals. Certain silk components can be produced as recombinant proteins and used as glues, supplements of tissue culture media, and scaffolds facilitating tissue regeneration. Accepted fellow is expected to participate in any area of this research and in the **education of students** in practical laboratory work. **The position will include a 5-months stay abroad**, probably in the Transgenic Research Center of the National Institute of Agrobiological Sciences, Tsukuba, Japan.

Duration of contract:

Selected candidate will be offered a position for up to 34 months starting from September 1st, 2012. The salary of about 1800 EUR per month is adequate for good living standard in the Czech Republic. Extension of the contract beyond 34 months may be possible, pending renewed funding (for which the fellow can also apply).

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 informed of the results immediately afterwards.

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Position summary:

The recent advance of science has opened door to a wide range of new ways of silk exploitation. For example, new types of silk fibers can be obtained by transferring genes encoding silk proteins from diverse silk-spinning insects into the silkworm. Propagation of transgenic genotypes can be facilitated by induced parthenogenesis in selected individuals. Certain silk components can be produced as recombinant proteins and used as glues, supplements of tissue culture media, and scaffolds facilitating tissue regeneration. Accepted fellow is expected to participate in any area of molecular silk research and in the education of students in practical laboratory work. The position will include a 5-months stay abroad, probably in the Transgenic Research Center of the National Institute of Agrobiological Sciences, Tsukuba, Japan.

Duration of contract:

Selected candidate will be offered a position for up to 33 months starting from October 1st, 2012. The salary of about 1800 EUR per month is adequate for good living standard in the Czech Republic. Extension of the contract beyond 34 months may be possible, pending renewed funding (for which the fellow can also apply).

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 September 15, 2012** by submitting the following documents and information to the following address: 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

Re-applications (i.e. applications of the candidates not selected in the first round) will not be accepted.

Announcement of results:

The Evaluation Committee will convene in September 2012 and candidates will be informed of the results immediately afterwards.