



Postdoctoral position available within MODBIOLIN project

Informaticist experienced in plant molecular genetics is preferred

MODBIOLIN is a Proposal Acronym of EU project reg. no. FP-7-REGPOT-2012-2013-1 „**USE OF MODEL ORGANISMS TO RESOLVE CRUCIAL BIOLOGICAL PROBLEMS ON THE PATH TO INNOVATIONS**“

Justification: There is a clear need to increase the ability of research groups to analyze accumulating experimental data using techniques of the "next-generation" sequencing for instance for research of transcriptome, gene silencing and degradome, as well as for diagnosis and detection of new molecular pathogens and their molecular variants. In addition, bioinformatic approach is important for evolutionary predictions of gene functions including networks of regulatory elements and transcription factors, structural predictions of important proteins and RNAs. BC and in particular IPMB needs the expert team fully involved in these directions of ongoing research.

Relation to MODBIOLIN project: Research of the recruited expert will be related to the 1. “analyses of **regulatory network of transcription factors**, predictions of orthologues of hop genetic determinants of prenylflavonoid pathway with the use of *A. thaliana* and other plant models”; 2. analysis of PTGS-mediated **pospiroid pathogenesis** using analysis of plant **degradome**, vsRNA target predictions and viroid genome variability and 3. in silico predictions of **anticancerogenic nuclease** mutants and modified variants in relation to biogenesis in connection to stress and apoptotic processes as analyzed in *A. thaliana* and other model plants.

Desired profile of candidates: Excellent background in bioinformatics methods related to “next generation” sequencing, an ability to perform different levels of bioinformatic sorting and comparisons using own programmed Perl scripts and available programs. Experienced in basic protein modeling methods. Potential of practical utilization of thermodynamic and other predictions for work with RNA and nucleic acids. It is expected that the candidate has basic knowledge about plant molecular biology.

Selection criteria: Candidates must hold a PhD degree (or equivalent), should be highly motivated and have either a strong background in bioinformatic directions described above, should have good research records (publications), potential to establish own bioinformatic group and ability to establish excellent collaborative conditions to support MODBIOLIN and other topics of ongoing basic research.

Duration of the MODBIOLIN project: 3 years - 1st January 2013 – 31st December 2015 (the investigator will be supported with at least 10 000,- Eur to develop his own lab).

The deadline for applications is **October 31, 2012**. The gross salary is **3000,- EUR** per month.

The candidates should send their CV, list of publications, cover letter and contact information for 2 references to:

Dr. Jaroslav Matoušek
Biology Centre Academy of Sciences of the Czech Rep.
Institute of Plant Molecular Biology
Branišovská 31
370 05 České Budějovice
Czech Republic

jmat@umbr.cas.cz