

RESEARCH SUBJECTS OF TEAMS WORKING ON MOLECULAR MECHANISMS OF BIOLOGICAL CLOCKS

- Protein-protein interactions that drive circadian rhythms (David Doležel)
- Seasonal timing of diapause in insects (Vladimír Košťál)
- The linden bug, *Pyrrhocoris apterus* new model for circadian and photoperiodic studies (Šauman)



RESEARCH ON ARABIDOPSIS AS A MODEL IN TARGETED CROP BREEDING

• Exploitation of *Arabidopsis thaliana* model to improve crop properties (Jaroslav Matoušek)





RESEARCH SUBJECTS OF TEAMS WORKING ON INTERACTIONS BETWEEN PARASITES AND THEIR HOSTS

- *Trypanosoma brucei* as a suitable model for mitochondrial research (Julius Lukeš)
- Identification, validation and characterization of drug targets in medically important parasites Leishmania and Trypanosoma (Alena Zíková)
- Chromera velia as a model to study evolution of parasitism in Apicomplexa (Miroslav Oborník)
- The tick *lxodes ricinus* as a model for basic and applied biomedical research (Michalis Kotsyfakis and Petr Kopáček)
- Sphaerospora as a model for studying parasite transmission in aquatic systems (Astrid Holzer)





USE OF MODEL ORGANISMS TO RESOLVE CRUCIAL BIOLOGICAL PROBLEMS ON THE PATH TO INNOVATIONS

Project acronym: MODBIOLIN Grant agreement No.: 316304 Funding: 7th Framework program, specific program Capacities Call identifier: FP7-REGPOT-2012-2013-1 Project duration: Ist Oct. 2012 – 30th Sept. 2015 Coordinator: František Sehnal Project manager: Veronika Zázvorková







BIOLOGY CENTRE ASCR

MODBIOLIN project is executed by the Biology Centre of the Academy of Sciences of the Czech

Republic (BCAS), a research institution with more than 500 employees and about 100 PhD students. The project promotes infrastructure building centered around 14 teams with excellent performance in the biomedically-oriented research on model organisms. Supported activities include Knowledge acquirement, Integration into the European Research Area, Recruitment of experienced researchers, Equipment upgrading, Purchase of instruments (including a unique Bioluminiscence Imaging System), Knowledge dissemination, Staff coherence and quality control, Intellectual property protection, and Innovation capacity building. These activities bring about substantial methodological advances and enhance the research output. The project has a considerable socio-economic impact by providing special support to the convergence region of South Bohemia, promoting public awareness of the benefits of EU membership, and emphasizing the importance of research and innovations for EU economics and welfare.

PROJECT MANAGEMENT

Leaders of the research teams form the **Management Committee** that oversees and co-ordinates project activities. Project realization and performance of the teams are controlled by the **Steering Committee**, which includes nine outstanding EU scientists experienced in the research, execution of large projects, and administration of scientific institutions. The ability of critical self-evaluation of the MODBIOLIN teams is assessed by the **Advisory Board** composed of the representatives of four **partnering institutions** that provide advice and example in the area of intellectual rights protection and technology transfer.

MEMBERS OF THE STEERING COMMITTEE

- Noel J. Buckley (Molecular Neurobiology Group, King's College London, UK)
- Mark C. Field (Head, Department of Pathology, University of Cambridge, UK)
- Csaba Koncz (Max Planck Institute for Plant Breeding Research, Köln, Germany)
- Hendrik C. Korswagen (Hubrecht Institute, Utrecht, The Netherlands)
- Christos Louis (Department of Biology, University of Crete, Heraklion, Greece)
- Paul Michels (de Duve Institute, Université catholique de Louvain, Belgium)
- Pavel Tomancak (Max Planck Institute for Molecular Cell Biology and Genetics, Dresden, Germany)
- Libor Grubhoffer (University of South Bohemia, České Budějovice, Czech Republic)
- Helena Illnerová (Institute of Physiology ASCR, Prague, Czech Republic)



MEMBERS OF THE ADVISORY BOARD AND THE PARTNERING INSTITUTIONS

- Chris Bowler (Director, CNRS Institut de Biologie de l'Ecole Normale Supérieure, Paris)
- Anthony Hyman (Vice-Director, Max Planck Institute for Molecular Cell Biology and Genetics, Dresden)
- Michael Coupland (Director, Max Planck Institute for Plant Breeding Research, Köln)
- Mark Carrington (Head of Biochemistry Department, University of Cambridge)

RESEARCH SUBJECTS OF TEAMS WORKING ON GENE CASCADES IN DEVELOPMENT REGULATION

- Modulation of nuclear receptor function in cell signaling and organogenesis (Masako Asahina)
- Regulation of telomeric length in insects
 (Radmila Čapková-Frydrychová)
- Interplay between cell signaling and metabolism in *Drosophila melanogaster* (Alena Krejčí)
- Regulation of energy homeostasis in *D. melanogaster* (Michal Žurovec)
- Flour beetle Tribolium castaneum as a model for development and reproduction (Marek Jindra)

