

Advanced Methods Workshop – **Cell Culture**

General information:

The course consists of three parts:

- P. Kovarik - Isolation of primary cells from mouse bone marrow
- E. Ogris – Generation of monoclonal antibodies
- I. Meskiene – Plant cell culture

At the beginning each PI will give a basic lecture (1h – last week of March) followed by a hand-on workshop in the corresponding lab (in each lab a total of 8 hours on different days – as needed for the experiments, organized individually by the PI). Each part is finished by writing a protocol (2 pages per PI) on techniques and the obtained results. All 3 parts have to be attended and completed to get the ECTS points.

P. Kovarik – Isolation of primary cells from mouse bone marrow

- * Isolation of bone marrow from mice
- * Differentiation of primary cells (macrophages)
- * Functional tests (Phagocytosis with bacteria and/or yeast), microscopy

E. Ogris – Generation of monoclonal antibodies

- * Choice of antigen, antigen preparation
 - * * Immunization - testing of antisera * Cell fusion - hybridoma cell lines
 - * Screening methods
- Antibody characterization

I. Meskiene – Plant cell culture

- * Isolation of protoplasts from *A. thaliana* suspension culture
- * Transformation with GFP containing plasmids
- * Transient expression
- * Microscopy