

***Bio-membranes: Structure and dynamics of biological membranes in relation to cell functions***

Coordinator of the project: RNDr. Ivan Hapala, CSc.

Principal investigator for APRC Nitra: Dipl. Eng. Alexander Makarevixc, DSc.

Objectives of the project:

1. Create VVCE as functioning network of scientific-research workplaces engaged in role of membranes in pathogenesis of serious disorders and in modern biotechnologies.
2. Improve social and professional conditions for doctoral students and post doctorands within VVCE.
3. Increase competitiveness of VVCE workplaces and create conditions for higher degree of integration into European research area.
4. Disseminate the obtained knowledge in various fields of biomedicine, agriculture and biotechnologies.

***Magnetic separation of animal cells for utilization in biomedical and agricultural area***

Coordinator of the project: Assoc. Prof. Dipl. Eng. Peter Chrenek, DSc.

Objective of the project is to use the method of magnetic separation to obtain rabbits' stem cells, and subsequently assess their quality by fluorescent and electron microscopy, to select annexin by magnetic separation.

***Farm animal breeding systems using probiotics and plant substances with the objective to produce functional foodstuffs of animal origin***

Coordinator of the project: MVDr. Darina Pospíšilová, PhD, Assoc. Prof. RNDr. Ján Rafay, PhD.

Objective of this project is to explore the influence of probiotics and plant substances administered to animals on composition of animal products for human consumption.

***Influence of endogenous and exogenous factors on efficiency, behaviour and blood parameters in meat breeds of cattle and sheep kept in marginal conditions***

Coordinator of project: Assoc. Prof. Dipl. Eng Jan Brouček, DSc.

The objective will be to evaluate the influence of breed, elevation above sea level, grazing system and season on efficiency, behaviour, biochemical and haematological parameters in meat cattle and sheep in extensive breeding conditions. The project is aimed at improvement of welfare in cattle and sheep kept in sub-mountain and mountain areas of the Czech and Slovak Republics.