



Overview of employee involvement in project solutions

Content

<i>Projects supported by the Grant Agency of the Ministry of Education SR</i>	1
<i>Projects supported by EU structural funds</i>	3

More information on the department's (Ústav) website in the Research (Výskum) section.

Projects supported by the Grant Agency of the Ministry of Education SR

VEGA 1/0579/26:

Study of the TGF- β signaling pathway and fluorescent metabolites in gastrointestinal tract tumors

Head of the research team: prof. Ing. Mária Mareková, CSc.

KEGA 010UPJŠ-4/2026:

Developing practical skills and theoretical knowledge in the field of dental materials chemistry through innovative education

Head of the research team: doc. Ing. Beáta Hubková, PhD.

PO K9; 09-I05-03-V02-0007:

Digitization of biomedical laboratory analyses

Head of the research team: doc. Ing. Katarína Dubayová, PhD.

APVV-22-0357:

Non-invasive diagnostics based on ncRNA

Head of the research team: doc. RNDr. Miroslava Rabajdová, PhD.

VEGA 1/0435/23:

Investigation of the role of non-coding RNA and composition of metabolome in endometriosis and endometrial cancer

Head of the research team: prof. Ing. Mária Mareková, CSc.

KEGA 017UPJŠ-4/2023

CASE-PORTAL for the support and innovation of medical biochemistry teaching

Head of the research team: MUDr. Anna Birková, PhD.

KEGA 014UPJŠ-4/2023:

Basics of chemistry for foreign students - Biomedical aspects and applications

Head of the research team: doc. RNDr. Marek Stupák, PhD.

VVGS-2023-2612:

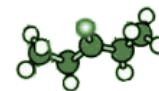
Introduction of a 3D *in vitro* model for the study of endometrial receptivity to trophoblast spheroids

Head of the research team: doc. RNDr. Miroslava Rabajdová, PhD.

VEGA 1/0540/20:

Study of selected biomarkers of the origin and progression of demyelinating CNS diseases

Head of the research team: doc. Mgr. Peter Urban, PhD.



VEGA 1/0333/20:

Tear fluid and saliva in preventive, predictive and personalized medicine
Head of the research team: doc. RNDr. Vladimíra Tomečková, PhD.

VEGA 1/0620/19:

The use of innovative molecular biochemistry methods in the diagnosis of non-perceptive endometrium in the process of *in vitro* fertilization
Head of the research team: doc. RNDr. Miroslava Rabajdová, PhD.

VEGA 1/0559/18:

Study of the origin and progression of periodontitis using the latest molecular-biochemical methods
Head of the research team: doc. RNDr. Janka Vašková, PhD.

VEGA 1/0873/17:

The use miRNA and fluorescence techniques in diagnosis of bladder tumors
Head of the research team: prof. Ing. Mária Mareková, CSc.

VEGA 1/0873/16:

Characterization of microenvironment of endometrial carcinoma
Head of the research team: RNDr. Miroslava Rabajdová, PhD.

KEGA 013UPJŠ-4/2016:

Clinical biochemistry
Head of the research team: prof. Ing. Mária Mareková, CSc.

VEGA 1/0782/15:

Effect of humic substances, acids and other natural ingredients to the functional status of some organs and mitochondria in their physiological condition and intoxication
Head of the research team: doc. MVDr. Ladislav Vaško, CSc.

KEGA 3/7130/09:

Biochemistry in scheme and pictures
Head of the research team: prof. Ing. Mária Mareková, CSc.

VEGA 1/0799/09:

Effect of omega - 3 PUFA and humic acids on metabolism and animal health, lipid composition and oxidative stability of animal feed products and derived foods on the health of patients
Head of the research team: doc. MVDr. Ladislav Vaško, CSc.

VEGA 1/0624/08:

The study of structure-activity relationship of chalcones on mitochondria
Head of the research team: prof. Ing. Juraj Guzy, CSc.

VEGA 1/4233/07:

Early diagnosis of ovarian carcinomas by new methods of biochemical analysis of blood and urine
Head of the research team: prof. Ing. Mária Mareková, CSc.

APVV-0252 07:

Multiple organ dysfunction syndromes after ischemia/transplantation of the small intestine



Projects – Overview



Department of Medical and Clinical Biochemistry

Head of the biochemistry research team: prof. Ing. Mária Mareková, CSc.

VEGA 1/3364/06:

Fluorescence spectral matrix of biological fluids - new search tool of molecular markers of severe metabolic disorders (quasi - metabolomic profiling)

Head of the research team: doc. RNDr. Jaroslav Kušnír, CSc.

KEGA 3/3187/05:

Biochemistry for the medical faculty

Head of the research team: prof. MUDr. Dušan Dobrota, CSc.

VEGA 1/2267/05:

Natural and synthetic flavonoids (chalcones) - molecular mechanisms of action on living systems

Head of the research team: prof. Ing. Juraj Guzy, CSc.

Projects supported by EU structural funds

AKARDIO COVID19

Analysis of the cardiovascular and immunological response of patients after overcoming COVID-19 with a focus on the research of new diagnostic markers and therapeutic agents

313AUB100001 Research of new diagnostic markers and therapeutic agents with a diagnosis of COVID-19

OPENMED - ITMS2014+: 313011V455

Open scientific community for modern interdisciplinary research in medicine; *Activity 313V45500005-H5: Cardiovascular Diseases (NV95)*

MEDIPARK - ITMS: 26220220185

Medical University Science Park in Košice (MediPark, Košice)

CEMIO - ITMS: 26220120058

Centre of Excellence for Research on determinants of health, with a focus on group of marginalized and immunocompromised people; *Activity 1.4: Modernization of infrastructure for research on rapid metabolic monitoring of health status*

Head of the research team: prof. Ing. Juraj Guzy, CSc.

Manager of project: doc. Mgr. Peter Urban, PhD.

CEEPM - ITMS: 26220120067

Centre of Excellence for electromagnetic fields in medicine; *Activity 1.4: Completing the Laboratory of Biochemical Analysis*

Head of the research team: prof. Ing. Mária Mareková, CSc.

PROBIOTECH - ITMS: 26220220152

Competence Center for biomodulators and nutritional supplements; *Activity 2.1: Research and development of boosted probiotics, biomodulation products and functional foods*

Head of the research team: prof. Ing. Mária Mareková, CSc.

DIAGONKO - ITMS: 26220220153

Competence Center for Research and Development in the diagnosis and treatment of cancer;



Projects – Overview

Department of Medical and Clinical Biochemistry



Activity 2.4: Proteomic and biochemical analysis of blood and tissues of animals and patients irradiated by protons potentiated probiotics, biomodulation products and functional foods
Head of the research team: prof. Ing. Mária Mareková, CSc.