

Faculty of Natural Sciences
University of SS. Cyril and Methodius in Trnava

The 7th International Scientific Conference
Applied Natural Sciences 2019

PROGRAMME

25 September 2019 / Conference day 1

11:00 – 19:00 Registration (Foyer 1. floor)
14:30 -15:00 Coffee Break (Foyer 1. floor)

Conference Hall TAVO

15:00 – 15:30 Opening
Rector's and Vice-Dean's for Science, Quality and Research address
15:30 – 18:15 Invited plenary talks; Chair: Roman Boča

15:30 – 16:15



Fabio Benedetti
Department of Chemical and Pharmaceutical Sciences
University of Trieste, Italy

***DEUBIQUITINASE INHIBITORS:
DEVELOPMENT OF NEW ANTICANCER DRUGS***

16:15 – 17:00



Stanislav Miertuš
Department of Biotechnologies
Faculty of Natural Sciences
University of SS. Cyril and Methodius in Trnava
Slovak Republic

***INTEGRATED APPROACH TO THE DEVELOPMENT
OF BIOSENSORS, POTENTIAL DRUGS AND
MATERIALS FOR REGENERATIVE MEDICINE***

17:00 – 17:30 Coffee Break (Foyer 1. floor)

17:30 – 18:15



Bertrand Pourrut
Assistant Professor in Environmental Sciences
University of Lille,
Villeneuve-d'Ascq, France

***PLANT IN ENVIRONMENTAL STUDIES:
FROM BIOMONITORING TO REMEDIATION***

Conference Hall TAVO

18:30 – 19:45 e-Poster section Chemistry and Biomedical Chemistry
20:00 Welcome Dinner (Panorama Restaurant, Hotel Partizán)

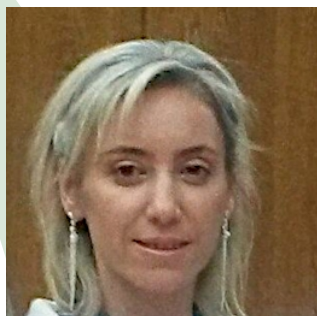
26 September 2019 / Conference day 2

9:00 – 16:00 Registration (Foyer 1. floor)

Conference Hall TAVO

9:00 – 10:30 Invited plenary talks; Chair: Alžbeta Marček-Chorvátová

9:00 – 9:45



Zeliha Selamoglu

Department of Medical Biology
Faculty of Medicine
Nigde Ömer Halisdemir University
Campus 51240 Turkey

APITHERAPY AND BIOMEDICAL APPLICATIONS

9:45 – 10:30



Pavel Klouček

Department of Food Science
Faculty of Agrobiolgy, Food and Natural Resources
Czech University of Life Sciences Prague

ADVANCES IN THE ANTIMICROBIAL ACTIVITY OF ESSENTIAL OILS - BACK OR FORWARD?

10:30 – 11:00 Coffee Break (Foyer 1. floor)

11:00 – 13:00 Symposium Chemistry and Biomedical Chemistry, Chair: Peter Rapta, Block 1

Invite speaker

Małgorzata Szultka-Młyńska and
Bogusław Buszewski

ELECTROCHEMICAL SIMULATION OF BIOTRANSFORMATION REACTIONS OF DRUGS FROM DIFFERENT THERAPEUTIC GROUPS BY EC-HPLC/ESI-MS/MS

Invite speaker

Eubomír Švorc, Olha Sarakhman,
Marek Haško and Alžbeta Benková
Stanislav Hejda, Petr
Klusoň, Josef Krýsa and Oliver
Bajt

PROGRESSIVE ELECTROCHEMICAL SENSORS IN DRUG AND FOOD ANALYSIS
PHOTOCATALYZED DEGRADATION OF ENDOCRINE DISRUPTOR DIBUTYLPHTHALATE WITH GOETHITE AND CARBOXYLIC ACIDS

Zita Tokárová, Kamil Tokár and
Anita Eckstein

BIS(5,4-d)THIAZOLES WITH FURANE CORE

Viktor Milata, Branislav Pavílek,
Dušan Bortňák and Daniel Végh

ENOETHERS IN THE SYNTHESIS OF MONO- AND POLYCYCLIC COMPOUNDS

13:00 – 14:00	Lunch (Panorama Restaurant, Hotel Partizán)	
14:00 – 15:45 Invite speaker	Symposium Chemistry and Biomedical Chemistry, Chair: Viktor Milata, Block 2	
	Erik Klein , Vladimír Lukeš, Ján Rimarčík and Monika Biela	THEORETICAL INVESTIGATION OF (POLY)PHENOLIC ANTIOXIDANTS ACTION THERMODYNAMICS
	Václav Šícha , Jaroslav Klapetek, Kristýna Brandová, Pavel Kaule and Jan Čermák	HPLC DERIVATIZATION WITH HETEROBORANES
	Ileana Andreea Ratiu , Hossam Al-Suod, Magdalena Ligor and Boguslaw Buszewski	CYCLITOLS FROM PLANTS – COMPLEX INVESTIGATION OF THEIR OPTIMISED ISOLATION
	Jakub Ederer , Pavel Janoš, Jiří Henych and Jindřich Matoušek	THE TREATMENT EFFECT OF CERIUM OXIDE SURFACE FOR DECOMPOSITION OF ORGANOPHOSPHORUS COMPOUNDS
15:45 – 16:15	Coffee Break (Foyer 1. floor)	
16:15 – 18:00 Invite speaker	Symposium Chemistry and Biomedical Chemistry, Chair: Erik Klein, Block 3	
	Zuzana Barbieriková and Vlasta Brezová	EPR SPECTROSCOPY – A UNIQUE AND POWERFUL TOOL TO STUDY PHOTOINDUCED PROCESSES
	Peter Rapta , Denisa Darvasiová and Vladimir Arion	SPECTROELECTROCHEMISTRY OF COPPER(II) COMPLEXES WITH MORPHOLINE-THIOSEMICARBAZONE HYBRIDS
	Roman Boča	UNUSUAL BEHAVIOUR OF SINGLE ION MAGNETS
	Dušan Valigura and Veronika Chrenková	STRUCTURAL ASPECTS OF LATE 3d TRANSITION METAL SINGLE ION MAGNETS
18:00 – 19:00	Meet the Editors Section Viktor Milata, President of the Board of Slovak Scientific Societies of SAS Josef Trögl, Associate Editor International Journal of Environmental Science and Technology Jiří Pospíchal, Editor Journal of Applied Mathematics, Statistics and Informatics Chairman: Ildikó Matušiková, Executive Editor Nova Biotechnologica <i>et</i> Chimica	

Conference Hall JUNIOR

10:30 – 11:00 Coffee Break (Foyer 1. floor)

11:00 – 13:30 Symposium and e-Poster Section Applied Informatics,
Chair: Marián Host'ovecký

Invite speaker	Jiří Škvor	APPLICATIONS OF GEOMETRIC ALGORITHMS
	Petr Kubera and Jiří Fišer	MACHINE LEARNING IN QRS COMPLEX DETECTION
	Marek Šimon, Ladislav Huraj and Miroslav Melicherčík	USING ANSIBLE FOR DDOS ATTACK TESTBED DEPLOYMENT
	Iveta Dirgová Luptáková and Jiří Pospíchal	DISCRETE BAT ALGORITHM FOR COMMUNITY DETECTION WITH CONSTRAINTS
	Iveta Dirgová Luptáková and Jiří Pospíchal	TOPOLOGICAL INDICES IN COMMUNITY DETECTION AND NETWORK ATTACKS
	Michal Čerňanský and Datja Gabriška	IMPROVING PUBLIC TRANSIT TRIP PLANNING USING CARTOGRAPHIC DATA

13:30 – 14:00 Lunch (Panorama Restaurant, Hotel Partizán)

14:00 – 15:45 Symposium and e-Poster Section Biology and Molecular Biology,
Chair: Alžbeta Marček Chorvátová

	Miroslav Glasa , Jana Tomašechová, Lukáš Predajňa and Katarína Šoltys	CHARACTERISATION OF VIROME IDENTIFIED IN SELECTED MEDICAL PLANTS BY NEXT GENERATION SEQUENCING
	Zuzana Šramková , Michaela Mancoš, Darina Peterková and Lucia Šťastná	PEPTIDOGLYCAN-DEGRADING ENZYMES OF <i>PSEUDOMONAS</i> PHAGES: NOVEL POOL OF ANTIBACTERIAL AGENTS
	Kristína Ondrová, Dominika Vešelényiová, Juraj Krajčovič and Alžbeta Marček Chorvátová	SPECTRAL LINEAR UNMIXING OF ENDOGENOUS FLUOROPHORES IN IMMOBILIZED EUGLENA

15:45 – 16:15 Coffee Break (Foyer 1. floor)

16:15 – 18:00 e-Poster Section Young Scientists

Conference Hall ZUNA

10:30 – 11:00 Coffee Break (Foyer 1. floor)

11:00 – 13:30 Symposium Biotechnology and Environmental Technology,
Chair: Miroslav Horník

Invite speaker	Ivan Holoubek	CHEMICAL POLLUTION OF THE ENVIRONMENT – MYTHS AND REALITY
	Nadia Mankou-Haddadi , Sidi Hachemi and Allouache Atmane and Karim Bensaid	MACRO WASTE AS INDICATORS OF POLLUTION OF BEJAIA COAST - ALGERIA
	Aida Ahmadi , Madjid Abbaspour and Neda Afkhami Namin	ASSESSMENT OF ACADEMIC ENVIRONMENTAL EDUCATION NEEDS WITH CLIMATE CHANGE APPROACH IN DEVELOPING COUNTRIES
	Jan Černý , Lucie Davidová, Jiřina Jílková and Valentina Pidlisnyuk	CHANGES IN THE LEGISLATIVE FRAMEWORK OF ENERGY CROPS PRODUCTION AND ITS PROCESSING IN THE CZECH REPUBLIC
	Agnieszka Pawlowska and Zygmunt Sadowski	ENVIRONMENTALLY FRIENDLY NICKEL RECOVERY FROM LATERITE ORES
	Peter Pristaš , Mária Píknová, Michaela Cimermanová, Anna Kopčáková, Andrej Godány and Jana Sedláková-Kaduková	STREPTOMYCETES FROM EXTREME ENVIRONMENTS AND THEIR BIOREMEDIATION ABILITIES
	Jana Moravčíková , Mária Zimová, Eva Boszorádová, Monika Bardáčová, Zuzana Gerši, Petra Ranušová, Peter Nemeček and Ildikó Matušíková	OVEREXPRESSION OF DEHYDRIN GENE FROM ARABIDOPSIS THALIANA IN NICOTIANA TABACUM L. ENHANCES TOLERANCE TO HEAVY METALS
	Soňa Bernátová , Merck	EXPERIENCE THE NEXT REVOLUTION OF RECOMBINANT RABBIT MONOCLONAL ANTIBODIES AND BEYOND – ZOOMAB ANTIBODIES BY MERCK

13:30 – 14:00 Lunch (Panorama Restaurant, Hotel Partizán)

14:00 – 15:45 e-Poster Section Chemistry and Biomedical Chemistry

15:45 – 16:15 Coffee Break (Foyer 1. floor)

16:15 – 18:00 e-Poster Section Biotechnology and Environmental Technology

Conference Hall EGUS

10:30 – 11:00 Coffee Break (Foyer 1. floor)

11:00 – 13:00 Symposium Young Scientists, Chair: Ildikó Matušíková, Block 1

Diana Nebeská, Hana Malinská, Josef Trögl and Valentina Pidlisnyuk
MICROBIAL AND PLANT STRESS RESPONSE DURING GROWING MISCANTHUS X GIGANTEUS IN MARGINAL LANDS: SUMMARY OF FIRST EXPERIMENTS

Sebastiana Rocuzzo, Andrew P. Beckerman and Josef Trögl
NEW PERSPECTIVES ON THE BIOLOGICAL REMEDIATION OF ENDOCRINE DISRUPTING COMPOUNDS FROM WASTEWATER USING ALGAE-, BACTERIA- AND FUNGI-BASED TECHNOLOGIES: STATUS AND FUTURE DIRECTIONS

Eliška Wildová and Emanuel Kula
ENVIRONMENTAL IMPACTS ON MANGANESE ACCUMULATION AND DYNAMICS IN PLANT SPECIES OF FOREST ECOSYSTEM

Vanda Adamcová, Petra Červeňáková, Juraj Lesný, Martin Valica, Peter Kováč and Miroslav Horník
UPTAKE AND DISTRIBUTION OF CO IN FRESHWATER PLANTS: A RADIOMETRIC STUDY

Daniel Bůžek, Veronika Kotrbatá, Slavomír Demel, Jan Demel and Kamil Lang
STABILITY OF METAL-ORGANIC FRAMEWORK UIO-66 IN AQUEOUS ENVIRONMENT

Monika Bardáčová, Martina Gregorová, Vanda Adamcová, Petra Ranušová, Jana Moravčíková, Eva Boszorádová, Pavol Hauptvogel and Ildikó Matušíková
CADMIUM TOLERANCE AND DISTRIBUTION STRATEGIES IN WHEAT TISSUES

Karim Al Souki, Jakub Trubač, Hana Burdová, Valentina Pidlisnyuk and Josef Trögl
CARBON SEQUESTRATION AND SOIL PARAMETERS MODIFICATION UPON LAND-USE SHIFT TOWARDS THE PERENNIAL BIOENERGY CROP MISCANTHUS X GIGANTEUS

13:00 – 14:00 Lunch (Panorama Restaurant, Hotel Partizán)

14:00 – 15:45 Symposium Young Scientists, Chair: Ildikó Matušíková, Block 2

Kamil Kotrle and Radovan Herchel
A THEORETICAL INSIGHT INTO SINGLE-MOLECULE MAGNETS WITH INORGANIC RINGS

Pavel Zoufalý, Radovan Herchel and Ivana Císařová
THE IMPACT OF 2-(5-ARYL-1,3,4-OXADIAZOL-2-YL)PYRIDINES ON STRUCTURE AND MAGNETISM OF CO(II) COMPLEXES

Jakub Tolasz, Jiří Henych and Pavel Janoš
INFLUENCE OF PREPARATION CONDITIONS ON FORMATION AND PROPERTIES OF NANOCERIA

Katarína Mitaľová, Dušan Valigura and Beáta Vranovičová
IRON COMPLEXES WITH AMINO ACID LIGANDS

Petra Ranušová, Peter Nemeček and Ildikó Matušíková
OPTIMIZATION OF SPE PROCEDURE AS ESSENTIAL STEP IN FRESH PLANT EXTRACT TREATMENT

Lenka Zaňková, Marie
EXTERNALITIES IN AGRICULTURE: HOW

Trantinová and Ján Macháč

TO INCLUDE ITS MONETARY ASSESSMENT
TO DECISION MAKING?

15:45 – 16:15 Coffee Break (Foyer 1. floor)

16:15 – 18:00 Symposium Young Scientists, Chair: Ildikó Matušíková, Block 3

Branislav Pavilek, Daniel Végh
and Júlia Kožíšková

ORTHO-SUBSTITUENT-CONTROLLED
REGIOSELECTIVE CYCLISATION OF 1,4-
PHENYLENEDIACRYLIC ACID TO LINEAR
BENZO[1,2-B:4,5-B']DITHIOPHENE
DERIVATIVES AS BUILDING BLOCKS FOR
ORGANIC SEMICONDUCTING MATERIALS
FORMATION OF PYRAZOLOAZEPINES
FROM 5-AMINOPYRAZOLES AS PRODUCTS
IN THE PAAL-KNORR SYNTHESIS

Dušan Bortňák, Daniel Végh,
Jakub Šofranko, Michal Šoral and
Viktor Milata

NOVEL PHOTO - ACTIVE INITIATORS FOR
ATRP

Petra Maxianová, Anita Eckstein,
Zita Tokárová and Jaroslav
Mosnáček

NEW HOMOZYGOUS MUTATION IN *ALG12*
GENE ASSOCIATED WITH THE
ACCUMULATION OF SERUM
GLCNAC2MAN7 N-GLYCAN RESULTED IN
CDG-I DISORDER IN NEWBORN PATIENT

Jana Ziburová, Marek Nemčovič,
Sergej Šesták, Jana Bellová,
Zuzana Pakanová, Barbara
Siváková, Anna Šalingová,
Claudia Šebová, Mária
Ostrožlíková, Lekka Dimitra-
Evanthia, Jana Brucknerová, Ingrid
Brucknerová, Martina Skokňová,
Alexandra Tekelyová, Vladimír
Bzdúch, Ján Mucha and Peter
Baráth

Dominika Vešelényiová and Juraj
Krajčovič

CALPAINS IN EUGLENOZOAN
FLAGELLATES AND THEIR BIOMEDICAL
POTENTIAL

19:30

Social Evening (Tálska Bašta)

27 September 2019 / Conference day 3

Panorama Restaurant, Hotel Partizán

9:00 – 10:00 Closing Plenary Meeting – Evaluation and Best Poster Awards