



UNIVERSITATEA BABEȘ-BOLYAI  
BABES-BOLYAI TUDOMÁNYEGYETEM  
BABES-BOLYAI UNIVERSITAT  
BABES-BOLYAI UNIVERSITY  
TRADITIO ET EXCELLENTIA



Facultatea de  
**Biologie și Geologie**  
UNIVERSITATEA BABEȘ-BOLYAI



Centrul de  
Biologie Sistemică  
Biodiversitate și  
Bioresurse



**ȘCOALA DOCTORALĂ  
BIOLOGIE INTEGRATIVĂ**



# CONFERENCE PROGRAM

INTERNATIONAL CONFERENCE

and

XXXIX SCIENTIFIC SESSION

of the

ROMANIAN SOCIETY FOR CELL BIOLOGY

(RSCB)

OCTOBER,

21<sup>st</sup>-23<sup>rd</sup>

Cluj-Napoca

## PARTNERS



Organizația Studenților pentru Natură



FRIDAY 21.10.2022

*Amphitheater of Zoology "E. Racoviță"*

- 8<sup>30</sup>-9<sup>30</sup> **Receiving and registering of the participants** (Location: the Hall of the Animal Physiology Amphitheater)
- 9<sup>30</sup>-10<sup>00</sup> **Opening Ceremony** (Location: Amphitheater of Zoology "E. Racoviță")  
**Speeches:**  
**Assist. prof. dr. Vlad-Alexandru TOMA**, Romanian Society for Cell Biology, branch from Cluj-Napoca  
**Prof. dr. Manuela BANCIU**, Dean, Faculty of Biology and Geology  
**Acad. Maya SIMIONESCU**, President, Romanian Society for Cell Biology
- Plenary Session**
- 10<sup>00</sup>-10<sup>30</sup> **Prof. dr. Tudor BADEA**, MD, MA, Ph.D., (Research and Development Institute, Faculty of Medicine, Transylvania University of Braşov, Romania) - **Functional Studies into the role of copines in retinal ganglion cell maturation and function**
- 10<sup>30</sup>-11<sup>00</sup> **Prof. dr. Marius MIHĂŞAN**, (Biochemistry and Molecular Biology Laboratory, "Al. Ioan Cuza" University, Iaşi, Romania) - **Steps towards the complete omics characterization of nicotine metabolism in *Paenarthrobacter nicotinovorans* atcc 49919**
- 11<sup>00</sup>-11<sup>15</sup> **Coffee break**

*Amphitheater of Invertebrate Zoology "V. Radu"*

**Scientific session**

**Environmental Molecular Biology and Plant Biology**

**Chairpersons:**

**Prof. dr. Marius Mihăşan**

**Assoc. prof. dr. Dorina Podar, Prof. dr. Gallia Butnaru (online)**

- 11<sup>15</sup>-11<sup>30</sup> **The impact of high carbon dioxide and ozone on plants tolerance to stress**  
Denisa Peteleu<sup>1</sup>, Andreea Lupitu<sup>1</sup>, Cristian Moisa<sup>1</sup>, Virgiliu Ciutină<sup>1</sup>, Dana Copolovici<sup>1</sup>, Lucian Copolovici<sup>1</sup>  
<sup>1</sup>Aurel Vlaicu University, Faculty of Food Engineering, Tourism and Environmental Protection; Institute for Research, Development, and Innovation in Technical and Natural Sciences, Romania, 2 Elena Dragoi St., Arad, 310330, Romania
- 11<sup>30</sup>-11<sup>45</sup> ***Raphanus sativus* plants exposed to high carbon dioxide concentrations and ozone stress**  
Flavia Bortes<sup>1</sup>, Lucian Copolovici<sup>1,2</sup>, Cristian Moisa<sup>1</sup>, Andreea Lupitu<sup>1</sup>, Dana Copolovici<sup>1,2</sup>  
<sup>1</sup>Institute of Technical and Natural Sciences Research-Development-Innovation of "Aurel Vlaicu" University, Romania; <sup>2</sup>Faculty of Food Engineering, Tourism and Environmental Protection "Aurel Vlaicu" University, Romania
- 11<sup>45</sup>-12<sup>00</sup> **Resistance strategies to mercury in a *Fusarium oxysporum* isolate**  
Cristina L. Văcar<sup>1,4</sup>, Enikő Covaci<sup>2</sup>, Tiberiu Frenţiu<sup>2</sup>, Marcel Pârvu<sup>3,4</sup>, Dorina Podar<sup>4,5</sup>  
<sup>1</sup>Doctoral School of Integrative Biology, Babeş-Bolyai University, Cluj-Napoca, Romania <sup>2</sup>Department of Analytical Chemistry, Babeş-Bolyai University, Cluj-Napoca, Romania <sup>3</sup>Department of Taxonomy and Ecology, Babeş-Bolyai University, Cluj-Napoca, Romania <sup>4</sup>Centre for Systems Biology, Biodiversity and Bioresources (3B), Babeş-Bolyai University, Cluj-Napoca, Romania <sup>5</sup>Department of Molecular Biology and Biotechnology, Babeş-Bolyai University, Cluj-Napoca, Romania

- 12<sup>00</sup>-12<sup>15</sup> Carbon dioxide's impact on Brassicaceae drought tolerance**  
Lucian Copolovici<sup>1,2</sup>, Andreea Lupitu<sup>2</sup>, Cristian Moisa<sup>2</sup>, Flavia Bortes<sup>2</sup>, Denisa Peteleu<sup>2</sup>, Virgiliu Ciutina<sup>1</sup>, Dana Copolovici<sup>1,2</sup>  
<sup>1</sup>Faculty of Food Engineering, Tourism, and Environmental Protection, "Aurel Vlaicu" University, Arad, Romania; <sup>2</sup>Institute of Technical and Natural Sciences Research-Development-Innovation of "Aurel Vlaicu" University, Arad, Romania
- 12<sup>15</sup>-12<sup>30</sup> Ten years after: Unravelling the microbiology of meromictic, hypersaline Ursu Lake (Sovata, Romania)**  
Horia L. Banciu<sup>1,2</sup>, Ionuț M. Gridan<sup>1,3</sup>, Adrian V. Zety<sup>1,3</sup>, Andreea Baricz<sup>1,4</sup>  
<sup>1</sup>Department of Molecular Biology and Biotechnology, Babeș-Bolyai University, Cluj-Napoca, Romania; <sup>2</sup>Emil G. Racoviță Institute, Babeș-Bolyai University, Cluj-Napoca, Romania; <sup>3</sup>Doctoral School of Integrative Biology, Faculty of Biology and Geology, Babeș-Bolyai University, Cluj-Napoca, Romania; <sup>4</sup>Centre for Systems Biology, Biodiversity and Bioresources, Babeș-Bolyai University, Cluj-Napoca, Romania
- 12<sup>30</sup>-12<sup>45</sup> Alternative operating procedure for assessing microbial communities and associated contaminants in selected karst springs**  
Andreea Baricz<sup>1,2</sup>, Edina Szekeres<sup>1,2,4</sup>, Adorján Cristea<sup>1,2</sup>, Erika Andrea Levei<sup>3</sup>, Oana Teodora Moldovan<sup>5</sup>, Horia Leonard Banciu<sup>1,2</sup>  
<sup>1</sup>Department of Molecular Biology and Biotechnology, Faculty of Biology and Geology, Babeș-Bolyai University, Cluj-Napoca, Romania; <sup>2</sup>Centre for Systems Biology, Biodiversity and Bioresources, Babeș-Bolyai University, Cluj-Napoca, Romania; <sup>3</sup>INCDO-INOE 2000, Research Institute for Analytical Instrumentation, Cluj-Napoca, Romania; <sup>4</sup>National Institute of Research and Development for Biological Sciences, Institute of Biological Research, Cluj-Napoca, Romania; <sup>5</sup>Cluj-Napoca Department, Emil Racovita Institute of Speleology, Cluj-Napoca, Romania
- 12<sup>45</sup>-13<sup>00</sup> The effects of rising carbon levels and climate change on plants in the family Salicaceae**  
Andreea Lupitu<sup>1</sup>, Cristian Moisa<sup>1</sup>, Dana Copolovici<sup>1,2</sup>, Lucian Copolovici<sup>1,2</sup>  
<sup>1</sup>Faculty of Food Engineering, Tourism, and Environmental Protection, "Aurel Vlaicu" University, Arad, Romania; <sup>2</sup>Institute of Technical and Natural Sciences Research-Development-Innovation of "Aurel Vlaicu" University, Arad, Romania
- 13<sup>00</sup>-13<sup>15</sup> Potential involvement of a nonribosomal peptide synthase in the synthesis of a secondary metabolite in chromohalobacter marismortui**  
Adorján Cristea<sup>1,3</sup>, Horia Leonard Banciu<sup>2,3</sup>  
<sup>1</sup>Department of Taxonomy and Ecology, Faculty of Biology and Geology, Babeș-Bolyai University, Cluj-Napoca, Romania; <sup>2</sup>Department of Molecular Biology and Biotechnology, Faculty of Biology and Geology, Babeș-Bolyai University, Cluj-Napoca, Romania; <sup>3</sup>Centre for Systems Biology, Biodiversity and Bioresources, Babeș-Bolyai University, Cluj-Napoca, Romania
- 13<sup>15</sup>-13<sup>30</sup> The Gram-negative bacilli isolated from 4haracte caves - A review of their involvement in human infections**  
Mihaela Ileana Ionescu<sup>1, 2</sup>, Alexandra Marioara Craciun<sup>3</sup>, Horia Leonard Banciu<sup>4,5</sup>, Oana Teodora Moldovan<sup>6,7</sup>  
<sup>1</sup>Department of Microbiology, Iuliu Hatieganu University of Medicine and Pharmacy, Cluj-Napoca, Romania, <sup>2</sup>Department of Microbiology, County Emergency Clinical Hospital, Cluj-Napoca, Romania  
<sup>3</sup>Department of Biochemistry, Iuliu Hatieganu University of Medicine and Pharmacy, Cluj-Napoca, Romania, <sup>4</sup>Department of Molecular Biology and Biotechnology, Faculty of Biology and Geology, Babeș-Bolyai University, Cluj-Napoca, Romania, <sup>5</sup>Center for Systems Biology, Biodiversity, and Bioresources, Babeș-Bolyai University Cluj-Napoca, Romania, <sup>6</sup>Emil Racovita Institute of Speleology, Cluj-Napoca Department, Cluj-Napoca, Romania, <sup>7</sup>Romanian Institute of Science and Technology, Cluj-Napoca, Romania

**13<sup>30</sup>-13<sup>45</sup> Diversity and roles of Cand. Patescibacteria in hypersaline meromictic lakes revealed by metagenomic approach**

Ionut-Mădălin Gridan<sup>1,2</sup>, Andreea Baricz<sup>2,3</sup>, Adorján Cristea<sup>2,3</sup>, Horia Leonard Banciu<sup>2,4</sup>

<sup>1</sup>Doctoral School of Integrative Biology, Babeş-Bolyai University, Cluj-Napoca, Romania, <sup>2</sup>Department of Molecular Biology and Biotechnology, Babeş-Bolyai University, Cluj-Napoca, Romania, <sup>3</sup>Centre for Systems Biology, Biodiversity and Bioresources, Babeş-Bolyai University, Cluj-Napoca, Romania, <sup>4</sup>Emil G. Racoviţă Institute, Babeş-Bolyai University, Cluj-Napoca, Romania

**13<sup>45</sup>-14<sup>00</sup> Plant colonizers of a mercury hotspot site: Trace metals and associated rhizosphere bacteria**  
Emanuela D. Tiodar<sup>1,2</sup>, Cecilia Chiriac<sup>3</sup>, Filip Pošćić<sup>4</sup>, Cristina L. Văcar<sup>1,2</sup>, Zoltan R. Balazs<sup>1,2</sup>, Cristian Coman<sup>3</sup>, David C. Weindorf<sup>5</sup>, Dorina Podar<sup>2,6</sup>

<sup>1</sup> Doctoral School of Integrative Biology, Babeş-Bolyai University, Cluj-Napoca, Romania; <sup>2</sup> Centre for Systems Biology, Biodiversity and Bioresources (3B), Babeş-Bolyai University, Cluj-Napoca, Romania, <sup>3</sup>NIRDBS, Institute of Biological Research, Cluj-Napoca, Romania; <sup>4</sup>Department of Environmental Science, University of Arizona, Tucson, USA; <sup>5</sup> Department of Earth and Atmospheric Science, Central Michigan University, Mt Pleasant, MI, USA; <sup>6</sup> Department of Molecular Biology and Biotechnology, Babeş-Bolyai University, Cluj-Napoca, Romania

**14<sup>00</sup>-14<sup>05</sup> ePoster: Adaptive anatomical features of vegetative organs in vulnerable plant species *Vincetoxicum fuscatum* (HORNEM.) RCHB.F. in the conditions of Dobrogea (Romania) steppe habitats**

Loreley-Dana Jianu<sup>1</sup>, Verginica Schröder<sup>1</sup>, Artur Cugut<sup>2</sup>, Dana Şuteu<sup>3</sup>

<sup>1</sup>Ovidius University Constanta, Romania, <sup>2</sup>Wilderness Research and Conservation Association, Romania, <sup>3</sup>Institute of Biological Research Cluj-Napoca, Romania

**14<sup>05</sup>-14<sup>10</sup> ePoster: ITS2 alternative for DNA barcoding *Ormyrus nitidulus***

Viciriu Ionela-Mădălina<sup>1</sup>, Fusu Lucian<sup>2</sup>

<sup>1</sup>Laboratory of interdisciplinary research on the marine environment and marine terrestrial atmosphere, Al. I. Cuza University of Iasi, Prof. dr. Ioan Borcea Marine Biological Station, Constanţa, Romania; <sup>2</sup>Al. I. Cuza University of Iasi, Faculty of Biology, Research Group in Invertebrate Diversity and Phylogenetics, Iaşi, Romania

**14<sup>10</sup>-14<sup>25</sup> Plant metal tolerance proteins and plant-rhizosphere microorganisms interactions for restoration and biofortification purposes**

Dorina Podar<sup>1</sup>, Emanuela D. Tiodar<sup>1,2</sup>, Mihai C. Grimm<sup>1</sup>, Mihaela Gălean<sup>1</sup>, Cristina L. Văcar<sup>1,2</sup>

<sup>1</sup>Department of Molecular Biology and Biotechnology and Centre for Systems Biology, Biodiversity and Bioresources (3B), Faculty of Biology and Geology, Cluj-Napoca, România, <sup>2</sup>Doctoral School of Integrative Biology, Babeş-Bolyai University, Cluj-Napoca, Romania

**Amphitheater of Animal Physiology "Acad. E. Pora"**

**Scientific sessions**

**Neuroscience and Neuropathology &**

**Advanced methods in cell biology and pathology, experimental models**

**Chairpersons: Prof. dr. Tudor Badea**

**Assist. prof. dr. Vlad-Alexandru Toma; Dr. Elena Butoi (online)**

**11<sup>15</sup>-11<sup>30</sup> The effects of cotinine and 6-hydroxy-l-nicotine on anxiety, depression and oxidative stress in a rat model of Alzheimer's disease**

Razvan Stefan Boianuiu<sup>1</sup>, Marius Mihasan<sup>1</sup>, Lucian Hritcu<sup>1</sup>

<sup>1</sup>Department of Biology, Alexandru Ioan Cuza University of Iasi, Iasi, Romania

**11<sup>30</sup>-11<sup>45</sup> Sweroside supports memory function by increasing Mrna expression of *BDNF*, *CREB1*, *NRF2A*, increasing the level of *CREB1* protein, decreasing *ACHE* activity, and decreasing brain oxidative stress in the scopolamine-induced zebrafish model (*Danio rerio*)**

Ion Brînza<sup>1</sup>, Alexandru Stache<sup>1</sup>, Omayma Eldahshan<sup>2</sup>, Lucian Gorgan<sup>1</sup>, Marius Mihasan<sup>1</sup>, Lucian Hritcu<sup>1</sup>

<sup>1</sup> Department of Biology, Alexandru Ioan Cuza University of Iasi, Iasi, Romania, <sup>2</sup> Department of Pharmacognosy, Ain Shams University, Egypt

- 11<sup>45</sup>-12<sup>00</sup> Following Cajal: new forms of cellular organization in the central nervous system of birds**  
Vlad-Alexandru Toma<sup>1,2</sup>, Bogdan Dume<sup>1</sup>  
<sup>1</sup>Department of Molecular Biology and Biotechnology, Faculty of Biology and Geology, Babes-Bolyai University, Cluj-Napoca, Romania, <sup>2</sup>Institute of Biological Research Cluj-Napoca, Romania
- 12<sup>00</sup>-12<sup>05</sup> ePoster: Non-apoptotic regulated cell death mechanisms under lipid-lowering therapy**  
Elena Uyy, Viorel I. Suica, Raluca M. Boteanu, Luminita Ivan, Felicia Antohe  
Proteomics Department, Institute of Cellular Biology and Pathology "Nicolae Simionescu", Bucharest, Romania
- 12<sup>05</sup>-12<sup>10</sup> ePoster: Exosome proteomics reveals deregulated signaling pathways**  
Viorel I. Suica<sup>1</sup>, Georgiana Bernea<sup>2</sup>, Elena Uyy<sup>1</sup>, Luminita Ivan<sup>1</sup>, Raluca M. Boteanu<sup>1</sup> and Felicia Antohe<sup>1</sup>  
<sup>1</sup>Department of Proteomics, Institute of Cellular Biology and Pathology "Nicolae Simionescu" of the Romanian Academy, Bucharest, Romania  
<sup>2</sup>"Prof. N. Paulescu" National Institute of Diabetes, Nutrition and Metabolic Diseases, Bucharest, Romania
- 12<sup>10</sup>-12<sup>15</sup> ePoster: Hepatic alarmins and mitochondrial dysfunction under residual hyperlipidemic stress led to irreversible nonalcoholic fatty liver disease in gestational diabetes mellitus lowering therapy**  
Luminita Ivan, Elena Uyy, Viorel I. Suica, Raluca M. Boteanu and Felicia Antohe  
Department of Proteomics, Institute of Cellular Biology and Pathology "Nicolae Simionescu" of the Romanian Academy, Bucharest, Romania
- 12<sup>15</sup>-12<sup>20</sup> ePoster: Molecular signatures of valvular endothelial cells and monocytes cross-talk in early diabetic conditions**  
Monica Tucureanu, Letitia Ciortan, Ileana Manduteanu  
Institute of Cellular Biology and Pathology "Nicolae Simionescu", Bucharest, Romania
- 12<sup>20</sup>-12<sup>35</sup> online-The entanglements of archaeosciences at Bucharest: a long-term view**  
Catalin Lazar, Carmen Chfiriuc  
Research Institute of the University of Bucharest (ICUB), Bucharest, Romania
- 12<sup>35</sup>-12<sup>50</sup> Inherited metabolic disorders and deficiency of complex assembly: A rare ATP synthase defect in human mitochondria**  
Romana Vulturar<sup>1,2</sup>, Laura Damian<sup>3</sup>, Cecilia Lazea<sup>4</sup>, Melinda Baizat<sup>5</sup>, Adina Chiș<sup>1,2</sup>, Alina Botezatu<sup>6</sup>, Alina Nicolescu<sup>7</sup>, Călin Deleanu<sup>7</sup>, Gabriella Horvath<sup>8</sup>  
<sup>1</sup>Department of Cell and Molecular Biology, "Iuliu Hațieganu" University of Medicine and Pharmacy Cluj-Napoca, Romania; <sup>2</sup>Cognitive Neuroscience Laboratory, Department of Psychology, Babeș-Bolyai University, Cluj-Napoca, Romania; <sup>3</sup>Department of Rheumatology, Center for Rare Musculoskeletal Autoimmune and Autoinflammatory Diseases, Cluj Emergency County Hospital, Cluj-Napoca, Romania; <sup>4</sup>Department Pediatrics I, "Iuliu Hațieganu" University of Medicine and Pharmacy, Cluj-Napoca, Romania; <sup>5</sup>Sălaj Emergency County Hospital, Department of Neonatology, Zalău, Romania; <sup>6</sup>Faculty of Medicine, "Iuliu Hațieganu" University of Medicine and Pharmacy, Cluj-Napoca, Romania; <sup>7</sup>NMR Laboratory, "Petru Poni" Institute of Macromolecular Chemistry, Romanian Academy of Sciences, Iași, Romania; <sup>8</sup>Division of Biochemical Diseases, Department of Pediatrics BC Children's Hospital Vancouver, British Columbia Canada
- 12<sup>50</sup>-13<sup>05</sup> Adult-onset autoinflammatory diseases at the crossroads with metabolic and genetic disorders**  
Laura Damian<sup>1</sup>, Andrada Cozma<sup>1</sup>, Sonia Săbădiș<sup>1</sup>, Marc Damian<sup>2</sup>, Alexandra Vasiliu<sup>1</sup>, Romana Vulturar<sup>3</sup>  
<sup>1</sup>Emergency Clinical County Hospital Cluj, Rheumatology Dept, Center for Rare Autoimmune and Autoinflammatory Diseases, ERN-ReCONNET member, Cluj, Romania; <sup>2</sup>Faculty of Medicine, "Iuliu Hațieganu" University of Medicine and Pharmacy, Cluj-Napoca, Romania; <sup>3</sup>Department of Cell and Molecular Biology, "Iuliu Hațieganu" University of Medicine and Pharmacy Cluj-Napoca, Romania;

**13<sup>05</sup>-13<sup>20</sup> Bioarchaeology - from physical to molecular anthropology.**

Beatrice Kelemen<sup>1,2</sup>, Claudia Urduzia<sup>3</sup>, Zeno Karl Pinter<sup>4,5</sup>, Catalin Dobrinescu<sup>6</sup>, Vitalie Bodolica<sup>6</sup>

<sup>1</sup> Molecular Biology Center, Interdisciplinary Research Institute on Bio-Nano-Sciences, Babeş-Bolyai University, Cluj-Napoca, Romania, <sup>2</sup> Department of Molecular Biology and Biotechnology, Faculty of Biology and Geology, Babeş-Bolyai University, Cluj-Napoca, Romania, <sup>3</sup> Brukenthal National Museum, Sibiu, Romania, <sup>4</sup> Department of History, Heritage and Protestant Theology, Lucian Blaga University of Sibiu, Sibiu, Romania, <sup>5</sup> Institute of Social Sciences and Humanities, Romanian Academy, Sibiu, Romania, <sup>6</sup> Department of Research-Development and Projects, Museum of National History and Archeology, Constanța, Romania,

**14<sup>10</sup>-15<sup>10</sup> Lunch – Science Café and Amphitheater of Zoology “E. Racoviță”**

**Amphitheater of Zoology “E. Racoviță”**

**Plenary Session**

**15<sup>10</sup>-15<sup>40</sup> Using the Agilent Seahorse Analyzer for Real-Time Analysis of Cellular Metabolism**

Svetoslav Kalaydjiev - Cell Analysis Product Specialist EMEAL, *Agilent Technologies*

**15<sup>40</sup>-16<sup>10</sup> Dr. Orsolya Vincze (Centre of Ecological Research, Institute of Aquatic Ecology, Debrecen, Hungary) - The evolution of cancer resistance across mammals and potential mechanisms**

**16<sup>10</sup>-17<sup>10</sup> General Assembly of the Romanian Society for Cell Biology**

**17<sup>10</sup>-17<sup>25</sup> Coffee break**

**17<sup>25</sup>-18<sup>25</sup> Hall of the Amphitheater of Invertebrate Zoology “V. Radu”- Poster Session I**

**P1. SETTING THE STAGE FOR UNVEILING THE STORY OF A HISTORICAL POPULATION FROM SOUTHEASTERN ROMANIA**

Ioana (Rusu) Drăghici<sup>1,2</sup>, Octavian Popescu<sup>1,3</sup>, Beatrice Kelemen<sup>1,2</sup>

<sup>1</sup> Molecular Biology Centre, Interdisciplinary Research Institute on Bio-Nano-Sciences, Babeş-Bolyai University, Cluj-Napoca, 400271, Romania;

<sup>2</sup> Department of Molecular Biology and Biotechnology, Faculty of Biology and Geology, Babeş-Bolyai University, Cluj-Napoca, 400006, Romania;

<sup>3</sup> Institute of Biology Bucharest of Romanian Academy, Bucharest, 060031, Romania

**P2. tba**

Dobrin Nicolae, Zamfirescu Stela

Romanian Society for Cell Biology, branch from Constanta

**P3. THERAPY INDUCED MICRORNA MODIFICATIONS IN PARKINSON'S DISEASE**

Mirabela Romanescu<sup>1</sup>, Aimee Rodica Chis<sup>1\*</sup>, Alexandra Ioana Moatar<sup>1</sup>, Catalin Marian<sup>1</sup>, Mihaela Simu<sup>2,3</sup>, Ioan Ovidiu Sirbu<sup>1</sup>

<sup>1</sup> Department of Biochemistry, “Victor Babes” University of Medicine and Pharmacy, Timisoara, Romania;

<sup>2</sup> Department of Neurology, “Victor Babes” University of Medicine and Pharmacy, Timisoara, Romania;

<sup>3</sup> Neurology Clinic I, Timisoara Emergency County Hospital, Timisoara, Romania

**P4. SARS-COV-2 GENOMIC VARIANTS IDENTIFICATION USING NANOPORE SEQUENCING**

Paula Diana Ciordas<sup>1,2,3</sup>, Ionut Dragos Capraru<sup>1,4,5</sup>, Flavia Medana Anghel<sup>1,2</sup>, Mirabela Romanescu<sup>1,2,3</sup>, Cristian Oancea<sup>6</sup>, Catalin Valer Marian<sup>2,3</sup>, Ioan Ovidiu Sirbu<sup>2,3</sup>, Aimée Rodica Chis<sup>2,3</sup>

<sup>1</sup> Doctoral School, “Victor Babes” University of Medicine and Pharmacy, Timișoara, Romania

<sup>2</sup> Discipline of Biochemistry, “Victor Babes” University of Medicine and Pharmacy, Timișoara, Romania

<sup>3</sup> Center for Complex Network Science, “Victor Babes” University of Medicine and Pharmacy, Timișoara, Romania

<sup>4</sup> Public Health Authority Timiș County, Timișoara, Romania.

<sup>5</sup> Discipline of Epidemiology, “Victor Babes” University of Medicine and Pharmacy, Timișoara, Romania

<sup>6</sup> Department of Pulmonology, “Victor Babes” University of Medicine and Pharmacy, Timișoara, Romania

**P5. TIME DEPENDENT EXPRESSION OF MMU-MIR-195 IN MOUSE HEART**

Aimée Rodica Chis<sup>1,2</sup>, Alexandra Moatar<sup>1,2,3\*</sup>, Mihai Udrescu<sup>4</sup>, Gina Isvoranu<sup>5</sup>, Rodica Badea<sup>6</sup>, Valeriu Cismasiu<sup>5</sup>, Stefan Szedlaczek<sup>6</sup>, Ioan Ovidiu Sirbu<sup>1,2</sup>

<sup>1</sup> Biochemistry Department, “Victor Babes” University of Medicine and Pharmacy, Timișoara, Romania

<sup>2</sup> Center for Complex Network Science, “Victor Babes” University of Medicine and Pharmacy, Timișoara, Romania

<sup>3</sup> Doctoral School, “Victor Babes” University of Medicine and Pharmacy, Timișoara, Romania

<sup>4</sup>Computer and Information Technology Department, Polytechnic University, Timisoara, Romania

<sup>5</sup>Cell Biology Department, Victor Babes National Institute of Pathology, Bucharest, Romania

<sup>6</sup>Enzymology Department, Biochemistry Institute, Romanian Academy, Bucharest, Romania

#### **P6. 3D PRINTING MACROMOLECULAR MODELS AS A TOOL TO IMPROVE TEACHING IN LIFE SCIENCES**

Marius Mihășan

Faculty of Biology, Alexandru Ioan Cuza University of Iași, Iași, Romania

#### **P7. THE IMPACT OF DOXORUBICIN ON THE VIABILITY AND MORPHOLOGY OF VASCULAR AORTIC SMOOTH MUSCLE CELLS**

Vatamanu Sergiu-Marian<sup>1</sup>, Maria Anghelache<sup>2</sup>, Manuela Călin<sup>2</sup>

<sup>1</sup>Faculty of Biology and Geology, University Babeș-Bolyai

<sup>2</sup>Medical and Pharmaceutical Bionanotechnologies Laboratory, Institute of Cellular Biology and Pathology Nicolae Simionescu, Bucharest, Romania

#### **P8. THE INFLUENCE OF CRISPR-CAS SYSTEM OVER THE HORIZONTAL GENE TRANSFER OF ANTIBIOTIC RESISTANCE GENES AT *KLEBSIELLA PNEUMONIAE***

Matei-Stefan Dobrescu<sup>1,2,3</sup>, Dumitrana Iordache<sup>1,2,3</sup>, Anca Butiuc-Keul<sup>1,2</sup>

<sup>1</sup>Department of Molecular Biology, Faculty of Biology and Geology, Babeș-Bolyai University, Cluj-Napoca, Romania; <sup>2</sup>Center of Systems Biology, Biodiversity and Bioresources, Babeș-Bolyai University Cluj-Napoca, Romania; <sup>3</sup>Doctoral School of Integrative Biology, Babeș-Bolyai University, Cluj-Napoca, Romania

#### **P9. DRAFT GENOME OF *PAENARTHROBACTER NICOTINOVORANS* HIGHLIGHTS ITS ANTIBIOTIC RESISTENCE AND CRISPR SYSTEMS**

Iustin-Tiberius Munteanu<sup>1</sup>, Anda-Mihaela Mleşniță<sup>1</sup>, Fakhri Kallabi<sup>2</sup>, Marius Mihășan<sup>1</sup>

<sup>1</sup>BioActive Research Group, Faculty of Biology, Alexandru Ioan Cuza University of Iași, Iași Romania; <sup>2</sup>University of Sfax, Faculty of Medicine of Sfax, Sfax, Tunisia

#### **P10. Effect of lingonberry (*Vaccinium vitis-idaea* L.) extract on the liver and pancreas of alcohol-inoxicated rats**

Roman Ioana<sup>1</sup>, Toma Vlad Alexandru<sup>1,2</sup>

<sup>1</sup>Institute of Biological Research, Branch of NIRDBS Bucharest, Romania; <sup>2</sup>Faculty of Biology and Geology, Babeș-Bolyai University, Cluj-Napoca, Romania

#### **P11. ANTIMICROBIAL ACTIVITY OF *ALLIUM SATIVUM* AND *ALLIUM URSINUM* EXTRACTS**

Ioana Andreea Barbu<sup>1,2</sup>, Rahela Carpa<sup>1,2</sup>, Alexandra Ciorîță<sup>3</sup>, Anca Butiuc<sup>1,2</sup>, Marcel Pârțu<sup>1</sup>

<sup>1</sup>Babeș-Bolyai University, Faculty of Biology and Geology, Cluj-Napoca, Cluj, Romania;

<sup>2</sup>Center for Systems Biology, Biodiversity and Bioresources, Babeș-Bolyai University, Cluj-Napoca, Cluj, Romania;

<sup>3</sup>National Institute for Research and Development of Isotopic and Molecular Technologies, Cluj-Napoca, Cluj, Romania.

#### **P12. N1/N2 NEUTROPHIL SUBTYPES DIFFERENTIALLY MODULATE CARDIAC FIBROBLAST PHENOTYPE**

Ana-Maria Gan, Sergiu Cecoltan, Mihaela Vadana, Letitia Ciortan, Andreea Mihaila, Monica Tucureanu, Razvan Macarie, Maya Simionescu, Elena Butoi

Institute of Cellular Biology and Pathology "Nicolae Simionescu", Bucharest, Romania

#### **P13. SMOOTH MUSCLE CELLS INFLAMMATION AND SECRETED INFLAMMATORY MEDIATORS ARE INCREASED IN THE CROSS-TALK WITH MACROPHAGES; MODULATORY EFFECTS OF FICOLIN 2**

Răzvan Macarie\*, Monica Pîrvulescu\*, Letiția Ciortan, Anca Gan, Elena Butoi, Ileana Mânduțeanu

Institute of Cellular Biology and Pathology "Nicolae Simionescu", Bucharest, Romania

#### **P14. SPATIO-TEMPORAL VARIATION OF BACTERIAL DIVERSITY AND CARBAPENEM RESISTANCE GENES IN WASTEWATERS**

Adela Teban-Man<sup>1,2</sup>, Edina Szekeres<sup>2,3</sup>, Andreea Baricz<sup>3</sup>, Adriana Hegedus<sup>2</sup>, Marcel Pârțu<sup>1</sup> and Cristian Coman<sup>2</sup>

<sup>1</sup> Department of Taxonomy and Ecology, Faculty of Biology and Geology, Babeș-Bolyai University, 400084 Cluj-Napoca, Romania;

<sup>2</sup> NIRDBS, Institute of Biological Research, 400015 Cluj-Napoca, Romania;

<sup>3</sup> Department of Molecular Biology and Biotechnology, Faculty of Biology and Geology, Babeș-Bolyai University, 400084 Cluj-Napoca, Romania



**P15. THE EFFECT OF LIPOPOLYSACCHARIDES LENGTH ON THE FOLDING OF OMPA PROTEIN**

Paula V. Bulieris

*National Institute for Research and Development of Isotopic and Molecular Technologies, Cluj-Napoca, Romania*

**17<sup>25</sup>-18<sup>25</sup> Hall of the Amphitheater of Animal Physiology "Acad. E. Poni"- Poster Session II**

**P16. ANTI-CANDIDA BIOFILM ACTIVITY OF SYNTHETIC FLAVONOID BrCl**

Mihaela Savu<sup>1</sup>, Lucian Mihail Birsa<sup>2</sup>, Marius Stefan<sup>1</sup>

<sup>1</sup>*Faculty of Biology, "Alexandru Ioan Cuza" University of Iasi, Iasi, Romania*

<sup>2</sup>*Faculty of Chemistry, "Alexandru Ioan Cuza" University of Iasi, Iasi, Romania*

**P17. THE USE OF BIOCHEMICAL PARAMETERS FOR MONITORING DOXORUBICIN CARDIOTOXICITY**

Andreea Vădan<sup>1</sup>, Emilia Anca<sup>1</sup>, Mădălina Marinescu<sup>1</sup>, Camelia Dobre<sup>1</sup>, Corina Roşioru<sup>1</sup>

<sup>1</sup>*Babeş-Bolyai University, Faculty of Biology and Geology, Cluj-Napoca, Romania*

**P18. CORE MICROBIOME OF SELECTED ROMANIAN KARST SPRINGS AND COMMUNITY RESPONSE TO ANTHROPOGENIC POLLUTION**

Edina Szekeres<sup>1,2,4</sup>, Andreea Baricz<sup>1,2</sup>, Zamfira Stupar<sup>3</sup>, Oana Teodora Moldovan<sup>5</sup>, Horia Leonard Banciu<sup>1,2</sup>

<sup>1</sup>*Department of Molecular Biology and Biotechnology, Faculty of Biology and Geology, Babeş-Bolyai University, Cluj-Napoca, Romania;* <sup>2</sup>*Centre for Systems Biology, Biodiversity and Bioresources, Babeş-Bolyai University, Cluj-Napoca, Romania;*

<sup>3</sup>*INCDO-INOE 2000, Research Institute for Analytical Instrumentation, Cluj-Napoca, Romania;* <sup>4</sup>*National Institute of Research and Development for Biological Sciences, Institute of Biological Research, Cluj-Napoca, Romania;* <sup>5</sup>*Cluj-Napoca Department, Emil Racovita Institute of Speleology, Cluj-Napoca, Romania*

**P19. STUDY ON ANTHRACYCLINE-INDUCED HEPATOTOXICITY**

Mădălina-Manuela Marinescu<sup>1</sup>, Emilia Anca<sup>1</sup>, Andreea-Maria Vădan<sup>1</sup>, Camelia Dobre<sup>1</sup>, Anca Daniela Stoica<sup>1</sup>, Corina-Luminiţa Roşioru<sup>1</sup>

<sup>1</sup>*Babeş-Bolyai University, Faculty of Biology and Geology, Cluj-Napoca, Romania*

**P20. Ursolic acid reduces inflammation and the development of atherosclerotic lesions in hypercholesterolemic apolipoprotein e-deficient mice**

Alexandra-Gela Lazar, Mihaela-Loredana Vlad, Adrian Manea, Simona-Adriana Manea

*Institute of Cellular Biology and Pathology "Nicolae Simionescu" of the Romanian Academy, Bucharest, Romania*

**P21. Polyploidy and saline stress tolerance in somatic hybrids between *Solanum chacoense* and *S. tuberosum* cv. Delikat**

Magda Csiki, Mihnea Paraschiv, Lavinia Cosma, Elene Rakosy-Tican, Daniel Cruceriu

*Department of Molecular Biology and Biotechnology, "Babeş-Bolyai" University, Cluj-Napoca, Romania*

**P22. POSTPARTUM MATERNAL PSYCHOLOGICAL MANIFESTATIONS AND THE MOTHER-CHILD COUPLE**

Cristina Dragomir, Tania Vlad, Roxana Popescu, Cristina Adriana Dehelean

*University of Medicine and Pharmacy "Victor Babeş", Timisoara, Romania*

**P23. A NEW EXPERIMENTAL MODEL FOR SCREENING THE PROARRHYTHMIC EFFECTS OF DRUGS**

Alin-Alexandru Andrei<sup>1</sup>, Cristian Sevcencu<sup>1,2</sup>

<sup>1</sup>*Doctoral School of Integrative Biology, Babeş-Bolyai University, Cluj-Napoca, Romania*

<sup>2</sup>*National Institute for Research and Development of Isotopic and Molecular Technologies, Cluj-Napoca, Romania*

**P24. PHYTOMANAGEMENT: PLANTS AND MICROORGANISMS WORKING TOGETHER TO REMEDIATE MERCURY CONTAMINATED SOIL**

Mihaela Gălean<sup>1</sup>, Emanuela D. Tiodar<sup>1,2</sup>, Mihai C. Grimm<sup>1</sup>, Cristina L. Văcar<sup>1,2</sup>, Dorina Podar<sup>1</sup>

<sup>1</sup>*Department of Molecular Biology and Biotechnology and Centre for Systems Biology, Biodiversity and Bioresources (3B), Faculty of Biology and Geology, Babeş-Bolyai University, Cluj-Napoca, Romania*

<sup>2</sup>*Doctoral School of Integrative Biology, Babeş-Bolyai University, Cluj-Napoca, Romania*

## P25. POLYDOPAMINE FUNCTIONALIZED SiO<sub>2</sub> NANOPARTICLES AS DRUG DELIVERY PLATFORM

Mădălina Buhazi<sup>1</sup>, Maria Suci<sup>1,2</sup>, Ioana Grosu<sup>3</sup>, Anca Petran<sup>4</sup> Xenia Filip<sup>3</sup>

<sup>1</sup>Electron Microscopy Center "C. Crăciun", Biology and Geology Faculty, Babeş-Bolyai University, Cluj-Napoca, Romania.

<sup>2</sup>LIME-CETATEA, National Institute for R&D for Isotopic and Molecular Technologies (INCDTIM), Cluj-Napoca, Romania.

<sup>3</sup>Molecular and Complex Biomolecular Systems, National Institute for R&D for Isotopic and Molecular Technologies (INCDTIM), Cluj-Napoca, Romania.

<sup>4</sup>Physics of Nanostructured Systems, National Institute for R&D for Isotopic and Molecular Technologies (INCDTIM), Cluj-Napoca, Romania.

## P26. THE IMPORTANCE OF HPV TESTING IN MEN

Ştefan-Claudiu Mirescu<sup>1</sup>, Lăcrămioara Grigore<sup>1</sup>, Bianca Idomir<sup>1,2</sup>

<sup>1</sup>Univital Plus SRL, <sup>2</sup>Department of Molecular Biology and Biotechnology, Babes-Bolyai University, Clinicilor Street No. 4-6, Cluj-Napoca, Romania

## P27. IMPLEMENTING A DIGITAL TELECYTOLOGY TRAINING SYSTEM FOR PAPANICOLAOU SCREENING

Larivanov Raul<sup>1</sup>, Claudiu Stefan Mirescu<sup>2</sup>, Sesarman Alina<sup>1</sup>

<sup>1</sup>Department of Molecular Biology and Biotechnology, Babes-Bolyai University, Clinicilor Street No. 4-6, Cluj-Napoca, Romania,

<sup>2</sup>Univital Plus SRL

SATURDAY 22.10.2022

Amphitheater of Zoology "E. Racoviță"

### Plenary Session

- 9<sup>00</sup>-9<sup>30</sup> **Dr. Aimeé Chiş** (Biochemistry Department, Faculty of Medicine, "Victor Babeş" University of Medicine and Pharmacy, Timișoara, Romania) - *Plasma microRNAs in Parkinson's disease*
- 9<sup>30</sup>-10<sup>00</sup> **Dr. Gabriel Ichim** (Center for Research on Cancer in Lyon, University of Lyon, France) - *More than a hired killer: non-apoptotic function(s) of apoptosis in cancer*
- 10<sup>00</sup>-10<sup>30</sup> **Dr. Narcis Popescu** (Oklahoma Medical Research Foundation, Oklahoma, OK, USA) - *Dysregulated innate immune responses promote sepsis pathology induced by bacterial peptidoglycans*
- 10<sup>30</sup>-10<sup>45</sup> **Analyze and Sort up to 40 color panels with Cytex Spectral technology**  
*Riccardo Pasculli, Application Specialist Cellular Analysis, Accela s.r.o.*
- 10<sup>45</sup>-11<sup>00</sup> **Coffee break**

Amphitheater of Zoology "E. Racoviță"

### Scientific session

Molecular Biology, molecular metabolism & personalized medicine

Chairpersons:

Acad. Maya Simionescu

Dr. Gabriel Ichim

- 11<sup>00</sup>-11<sup>15</sup> **Screening of optimal crystallization conditions for a key protein of bacterial flagellum**  
Paula V. Bulieris  
National Institute for Research and Development of Isotopic and Molecular Technologies, Cluj-Napoca, Romania
- 11<sup>15</sup>-11<sup>30</sup> **Steps towards the complete OMICS 10 characterization of nicotine metabolism in *Paenarthrobacter nicotinovorans* ATCC 49919**  
Marius Mihăşan  
Faculty of Biology, Alexandru Ioan Cuza University of Iaşi, Iaşi, Romania
- 11<sup>30</sup>-11<sup>45</sup> **The impact of tumor necrosis factor alpha (TNF- $\alpha$ ) in breast cancer cell migration**  
Daniel Cruceriu<sup>1,2</sup>, Oana Baldaşici<sup>1</sup>, Loredana Bălăcescu<sup>1</sup>, Ovidiu Bălăcescu<sup>1</sup>, Oana Tudoran<sup>1</sup>  
<sup>1</sup>Department of Genetics, Genomics and Experimental Pathology, The Oncology Institute "Prof. Dr. Ion Chiricuta", Cluj-Napoca, Romania;  
<sup>2</sup>Department of Molecular Biology and Biotechnology, "Babes-Bolyai" University, Cluj-Napoca, Romania;

- 11<sup>45</sup>-12<sup>00</sup>** **The significance of intensity of CD147 expression in cervical squamous cell carcinoma with/without HPV infection**  
Ana-Emanuela Botez<sup>1</sup>, Laura Stoica<sup>1</sup>, Pavel Onofrei<sup>1</sup>, Vasile Bogdan Grecu<sup>1</sup>, Doinița Temelie -Olinici<sup>1</sup>, Petronela Bărgăoanu<sup>1</sup>, Ionuț Cătălin Botezatu<sup>1</sup>, Cristina Daniela Dimitriu<sup>2</sup>, Carmen Solcan<sup>3</sup>, Anca Ileana Sin<sup>4</sup>, Elena Carmen Cotrutz<sup>1</sup>  
<sup>1</sup>Department of Cell and Molecular Biology, University of Medicine and Pharmacy "Grigore T. Popa", Iași, Romania; <sup>2</sup>Department of Biochemistry, University of Medicine and Pharmacy "Grigore T. Popa", Iași, Romania  
<sup>3</sup>Department of Cell and Molecular Biology- University of Agricultural Science and Veterinary Medicine "Ion Ionescu de la Brad" Iasi, Romania; <sup>4</sup>Department of Cell and Molecular Biology - University of Medicine, Pharmacy and Technological Sciences "George Emil Palade" Tîrgu Mureș, Romania
- 12<sup>00</sup>-12<sup>05</sup>** **ePoster: Smooth muscle cells inflammation and secreted inflammatory mediators are increased in the cross-talk with macrophages; modulatory effects of ficolin 2**  
Răzvan Macarie, Monica Pîrvulescu, Letiția Ciortan, Anca Gan, Elena Butoi, Ileana Mânduțeanu  
 Institute of Cellular Biology and Pathology "Nicolae Simionescu", Bucharest, Romania
- 12<sup>05</sup>-12<sup>10</sup>** **ePoster: Development of biomimetic nanocarriers for delivery of pro-resolving mediators to atherosclerotic plaque**  
Maria Anghelache, Mariana Deleanu, Ruxandra Anton, Mihaela Turtoi, Geanina Voicu, Ileana Manduteanu, Maya Simionescu, Manuela Calin  
 Institute of Cellular Biology and Pathology "N. Simionescu", Bucharest, Romania
- 12<sup>10</sup>-12<sup>25</sup>** **Cell-penetrating peptides as non-viral vectors of therapeutics**  
Dana Maria Copolovici<sup>1</sup>, Cristian Moisa<sup>1</sup>, Andreea Ioana Lupitu<sup>1</sup>, Lucian Copolovici<sup>1</sup>  
<sup>1</sup> "Aurel Vlaicu" University of Arad, Faculty of Food Engineering, Tourism and Environmental Protection; and Institute for Research, Development and Innovation in Technical and Natural Sciences, Romania
- 12<sup>25</sup>-13<sup>15</sup>** **Lunch – Science Café and Amphitheater of Zoology "E. Racoviță"**

### Amphitheater of Zoology "E. Racoviță"

#### Scientific Session

#### Competitive research - Ph.D. students presentations

#### Chairperson:

Dr. Răzvan Boiangiu

Assist prof. dr. Daniel Cruceriu

- 13<sup>15</sup>-13<sup>30</sup>** **Effects of biologically synthesized silver nanoparticles on organ associated natural barriers**  
Razvan Vlad Opris<sup>1</sup>, Alina Mihaela Baciu<sup>1</sup>, Vlad Toma<sup>2</sup>, Gabriela Adriana Filip<sup>1</sup>, Adrian Florea<sup>1</sup>  
<sup>1</sup> "Tuliu Hatieganu" University of Medicine & Pharmacy, Cluj-Napoca, Romania;  
<sup>2</sup> "Babeș-Bolyai" University, Cluj-Napoca, Romania
- 13<sup>30</sup>-13<sup>35</sup>** **ePoster: Antibacterial activity of BrCl-FLAV against multidrug-resistant bacteria**  
Cristina-Veronica Moldovan<sup>1</sup>, Lucian Mihail Birsa<sup>2</sup>, Stefan Marius<sup>1</sup>  
<sup>1</sup>Faculty of Biology, Alexandru Ioan Cuza University of Iasi, Iasi, Romania, <sup>2</sup>Faculty of Chemistry, Alexandru Ioan Cuza University of Iasi, Iasi, Romania
- 13<sup>35</sup>-13<sup>50</sup>** **Online: Complete genome sequence of the nicotine-degrading soil microorganism *Paenarthrobacter nicotinovorans* ATCC 49919**  
Amada El-Sabeh<sup>1</sup>, Iasmina Honceriu<sup>1</sup>, Fakhri Kallabi<sup>1,2</sup>, Razvan-Stefan Boiangiu<sup>1</sup>, Marius Mihasan<sup>1</sup>  
<sup>1</sup>Faculty of Biology, Alexandru Ioan Cuza University of Iași, Iași, Romania
- 13<sup>50</sup>-14<sup>05</sup>** **Biochemical characterization of a *Solanum bulbocastanum* extract and its selective cytotoxic activity**  
Mihnea Paraschiv<sup>1</sup>, Magda Csiki<sup>1</sup>, Zorita Diaconeasa<sup>2</sup>, Sonia Socaci<sup>2</sup>, Ovidiu Balacescu<sup>3</sup>, Elena Rakosy-Tican<sup>1</sup>, Daniel Cruceriu<sup>1,3</sup>  
<sup>1</sup>"Babeș-Bolyai" University, Cluj-Napoca, Romania, <sup>2</sup>University of Agricultural Sciences and Veterinary Medicine, Cluj-Napoca, Romania, <sup>3</sup>The Oncology Institute "Prof. Dr. Ion Chiricuta", Cluj-Napoca, Romania

- 14<sup>05</sup>-14<sup>20</sup> The impact of tumor biology on rates of breast cancer recurrence**  
Vlad Bogdan Varzaru<sup>1,2,3</sup>, Anca-Elena Eftenoiu, Roxana Popescu<sup>2,3</sup>, Andreas Rempen<sup>1</sup>, Ionut Marcel Cobec<sup>1,3</sup>  
<sup>1</sup>Clinic of Obstetrics and Gynecology, Diakoneo Diak Klinikum, Schwäbisch Hall, Germany; <sup>2</sup>Department of Cell and Molecular Biology, "Victor Babes" University of Medicine and Pharmacy, Timisoara, Romania, <sup>3</sup>ANAPATMOL Research Center, "Victor Babes" University of Medicine and Pharmacy, Timisoara, Romania
- 14<sup>20</sup>-14<sup>35</sup> Modulatory effects of simvastatin on the metabolism of B16.F10. murine melanoma cells under normoxia *in vitro***  
Giorgiana G. Negrea<sup>1</sup>, Loredana Bălăcescu<sup>2</sup>, Alina Sesărman<sup>3</sup>, Manuela Banciu<sup>3</sup>  
<sup>1</sup>Doctoral School in Integrative Biology, Faculty of Biology and Geology, "Babeş-Bolyai" University, Cluj-Napoca, Romania; <sup>2</sup>Department of Functional Genomics, Proteomics and Experimental Pathology, Institute of Oncology "Prof. Dr. Ion Chiricuță" Cluj-Napoca, Romania; <sup>3</sup> Department of Molecular Biology and Biotechnology, Center of Systems Biology, Biodiversity and Bioresources, "Babeş-Bolyai" University, Cluj-Napoca, Romania.
- 14<sup>35</sup>-14<sup>50</sup> Age-dependent investment in immunity in the ant *Myrmica scabrinodis***  
Kincső ORBÁN-BAKK<sup>1,2</sup>, Magdalena WITEK<sup>3</sup>, Anna DUBIEC<sup>3</sup>, Jürgen HEINZE<sup>4</sup>, Bálint MARKÓ<sup>1,2</sup>, Enikő CSATA<sup>1,4</sup>  
<sup>1</sup>Hungarian Department of Biology and Ecology, Babeş-Bolyai University, 400006 Cluj-Napoca, Clinicilor st. 5-7, Romania; <sup>2</sup> 3B Center for Systems Biology, Biodiversity and Bioresources, Sociobiology and Insect Ecology Lab, Babeş-Bolyai University, 400006 Cluj-Napoca, Clinicilor st. 5-7, Romania; <sup>3</sup>Museum and Institute of Zoology, Polish Academy of Sciences, Wilcza 64, 00-679 Warszawa, Poland; <sup>4</sup>Institute for Zoology, University of Regensburg, Universitätsstraße 31, D-93040 Regensburg, Germany
- 14<sup>50</sup>-15<sup>05</sup> online - Natural aging process is associated with increased MIR-29a and downregulated serpinh1n multiple organs**  
Evelyn-Gabriela Nastase-Rusu, Ana-Mihaela Lupan, Mihai Bogdan Preda, Catalina Iolanda Marinescu, Carmen Alexandra Neculachi, Alexandrina Burlacu\*  
 Institute of Cellular Biology and Pathology "Nicolae Simionescu", Bucharest, Romania
- 15<sup>05</sup>-15<sup>10</sup> ePoster - The role of hypoxamir-210 on macrophage behaviour**  
 Carmen Alexandra Neculachi<sup>1</sup>, Evelyn Gabriela Nastase-Rusu<sup>1</sup>, Germana Zaccagnini<sup>2</sup>, Fabio Martelli<sup>2</sup>, Alexandrina Burlacu<sup>1</sup>, Mihai Bogdan Preda<sup>1</sup>  
<sup>1</sup>Institute of Cellular Biology and Pathology "N. Simionescu", Bucharest, Romania, <sup>2</sup>IRCCS Policlinico San Donato, Milan, Italy
- 15<sup>10</sup>-15<sup>25</sup> online - Aggregates of dermal fibroblasts and bone marrow mesenchymal stromal cells exhibit different characteristics: implications for regenerative therapy**  
Daniela-Madalina Ghetu, Ana-Maria Rosca, Raluca Tutuianu, Vasile Pruna, Maya Simionescu, Irina Titorencu  
 Institute of Cellular Biology and Pathology "Nicolae Simionescu" of the Romanian Academy, Bucharest, Romania
- 15<sup>25</sup>-15<sup>40</sup> Effects of combined therapy based on IL-13-LCL-PLP and PEG-EV-DOX on melanoma angiogenesis**  
Stefan Dragan<sup>1</sup>, Alina Sesarman<sup>1</sup>, Vlad Toma<sup>2</sup>, Manuela Banciu<sup>1</sup>  
<sup>1</sup>Department of Molecular Biology and Biotechnology and Center of Systems Biology, Biodiversity and Bioresources, Faculty of Biology and Geology, Babeş-Bolyai University, Cluj-Napoca, Romania; <sup>2</sup> Department of Biochemistry and Experimental Biology, Institute of Biological Research, Republicii Street No. 48, branch of NIRDBS Bucharest, Cluj-Napoca, Romania
- 15<sup>40</sup>-15<sup>55</sup> Mechanisms and applications of cell-penetrating peptides**  
Ana-Maria Tolos<sup>1,2</sup>, Carmen Popa<sup>1,2</sup>, Cristian Moisa<sup>1</sup>, Andreea Ioana Lupitu<sup>1</sup>, Mihaela Dochia<sup>1</sup>, Dorina Chambre<sup>1</sup>, Dana G. Radu,<sup>1</sup> Lucian Copolovici<sup>1</sup>, Dana Maria Copolovici<sup>1</sup>  
<sup>1</sup> "Aurel Vlaicu" University of Arad, Faculty of Food Engineering, Tourism and Environmental Protection; and Institute for Research, Development and Innovation in Technical and Natural Sciences, Romania; <sup>2</sup> Biomedical Sciences Doctoral School, University of Oradea, Romania
- 15<sup>55</sup>-16<sup>15</sup> Coffee break**

- 16<sup>15</sup>-16<sup>30</sup>** **Tailored physical association in peptide/polyurethane hydrogels and their capacity to release enzyme cofactors**  
Vasile Robert Grădinaru<sup>1</sup>, Brîndușa Alina Petre<sup>1</sup>, Laura Darie-Ion<sup>1</sup>, Luiza Mădălina Grădinaru<sup>2</sup>, Stefania-Claudia Jitaru<sup>1</sup>, Alexandra Lupu<sup>1</sup>  
<sup>1</sup>Alexandru Ioan Cuza University, Faculty of Chemistry, 11 Carol I Bd., RO-700506, Iasi, Romania, <sup>2</sup>Petru Poni Institute of Macromolecular Chemistry, 41-A Grigore Ghica Voda Alley, 700487 Iasi, Romania
- 16<sup>30</sup>-16<sup>45</sup>** **"Natural" and synthetic liposomes for future melanoma therapies**  
Laura Patras<sup>1</sup>, Valentin Florian Rauca<sup>1</sup>, Giorgiana Negrea<sup>2</sup>, Marta Szilvia Meszaros<sup>1</sup>, Emilia Licarete<sup>1</sup>, Alina Porfire<sup>3</sup>, Lucian Barbu<sup>4</sup>, Lavinia Luput<sup>1</sup>, Alina Sesarman<sup>1</sup>, Vlad-Alexandru Toma<sup>1</sup>, Manuela Banciu<sup>1</sup>  
<sup>1</sup>Department of Molecular Biology and Biotechnology, and Center of Systems Biology, Biodiversity and Bioresources, Faculty of Biology and Geology, Babes-Bolyai University, Cluj-Napoca, Romania; <sup>2</sup> Doctoral School in Integrative Biology, Faculty of Biology and Geology, Babes-Bolyai University, Cluj-Napoca; <sup>3</sup>Department of Pharmaceutical Technology and Biopharmaceutics, Faculty of Pharmacy, University of Medicine and Pharmacy "Iuliu Hatieganu", Cluj-Napoca, Romania; <sup>4</sup>"C.Craciun" Electron Microscopy Center, Faculty of Biology and Geology, "Babes-Bolyai" University, Cluj-Napoca, Romania
- 16<sup>45</sup>-17<sup>00</sup>** **Characterization of adaptive immune responses during exosome-mediated tumor regression**  
Patras Laura<sup>1,2</sup>, Kayleen Bailey<sup>2</sup>, Miho Hatano<sup>2</sup>, Angela Di Giannatale<sup>2</sup>, Ayuko Hoshino<sup>3</sup>, Daniela Freitas<sup>4</sup>, Henrik Molina<sup>5</sup>, Celso Reis<sup>4</sup>, Jack Bui<sup>6</sup>, Doru Paul<sup>7</sup>, Irina Matei<sup>2</sup>, David Lyden<sup>2</sup>  
<sup>1</sup>Department of Molecular Biology and Biotechnology, Center of Systems Biology, Biodiversity and Bioresources, Faculty of Biology and Geology, "Babes-Bolyai" University, Cluj-Napoca, Romania, <sup>2</sup>Department of Pediatrics, Weill Cornell Medical College, New York, USA <sup>3</sup>School of Life Science and Technology, Tokyo Institute of Technology, Yokohama, Japan; Japan Science and Technology Agency, PRESTO, Tokyo, Japan, <sup>4</sup>3S-Institute for Research and Innovation in Health, University of Porto, Rua Alfredo Allen 208, Porto, Portugal, <sup>5</sup>Proteomics Resource Center, The Rockefeller University, New York, NY, USA <sup>6</sup>University of California, San Diego, La Jolla, CA 92093, USA, <sup>7</sup>Columbia University - Weill Cornell Medicine, New York, USA
- 17<sup>00</sup>-17<sup>15</sup>** **Surface modification of prednisolone phosphate-loaded liposomes using IL-13 enhances their cellular uptake and antitumor activity in melanoma**  
Alina Sesarman<sup>1,7</sup>, Lavinia Luput<sup>1</sup>, Valentin-Florian Rauca<sup>1</sup>, Laura Patras<sup>1</sup>, Emilia Licarete<sup>1,2</sup>, Bogdan Razvan Dume<sup>1</sup>, Giorgiana Negrea<sup>1</sup>, Vlad-Alexandru Toma<sup>1,3</sup>, Dana Muntean<sup>4</sup>, Alina Porfire<sup>4</sup>, Manuela Banciu<sup>1</sup>  
<sup>1</sup>Department of Molecular Biology and Biotechnology, and Center of Systems Biology, Biodiversity and Bioresources, Faculty of Biology and Geology, Babes-Bolyai University, Cluj-Napoca, Romania; <sup>2</sup>Molecular Biology Centre, Institute for Interdisciplinary Research in Bio-Nano-Sciences of Babes-Bolyai University, Cluj-Napoca, Romania; <sup>3</sup>Department of Experimental Biology and Biochemistry, Institute of Biological Research, branch of NIRDBS Bucharest, Cluj-Napoca, Romania; <sup>4</sup>Department of Pharmaceutical Technology and Biopharmaceutics, Faculty of Pharmacy, University of Medicine and Pharmacy "Iuliu Hatieganu", Cluj-Napoca, Romania
- 17<sup>15</sup>-17<sup>20</sup>** **e-Poster: In vitro biocompatibility investigation of zinc-doped hydroxyapatite nanoparticles for dental applications**  
Madalina Andreea Badea<sup>1</sup>, Mihaela Balas<sup>1</sup>, Steluta-Carmen Ciobanu<sup>2</sup>, Simona-Liliana Iconaru<sup>2</sup>, Daniela Predoi<sup>2</sup>, Anca Dinischiotu<sup>1</sup>  
<sup>1</sup>Department of Biochemistry and Molecular Biology, Faculty of Biology, University of Bucharest, 91-95 Splaiul Independentei, 050095 Bucharest, Romania; <sup>2</sup>National Institute of Materials Physics, 405A Atomistilor Street,

077125 Magurele, Romania

- 17<sup>20</sup>-17<sup>35</sup>** **Biological activity of compounds from marine algae on tumor cell lines**  
Lavinia-Lorena Pruteanu<sup>1</sup>, Monica Liliana Marian <sup>1</sup>, David Stanley Bailey <sup>2</sup>  
<sup>1</sup>Technical University of Cluj-Napoca, Faculty of Sciences, Department of Chemistry and Biology, Baia Mare, Romania, City; <sup>2</sup>IOTA Pharmaceuticals Ltd, St Johns Innovation Centre, Cambridge, United Kingdom
- 17<sup>35</sup>-17<sup>50</sup>** **Doxorubicin and siRNA targeting HIF-1 $\alpha$ - a novel combination therapy for melanoma.**  
**Bogdan Dume**<sup>1</sup>, **Alina Sesărman**<sup>2</sup>, **Manuela Banciu**<sup>2</sup>, **Emilia Licărete**<sup>2</sup>  
<sup>1</sup>Doctoral School in Integrative Biology, Faculty of Biology and Geology, "Babes-Bolyai" University, Cluj-Napoca, Romania; <sup>2</sup>Department of Molecular Biology and Biotechnology, Center of Systems Biology, Biodiversity and Bioresources, Faculty of Biology and Geology, "Babes-Bolyai" University, Cluj-Napoca, Romania;
- 17<sup>50</sup>-18<sup>05</sup>** **Peptide-based substrates for enzymes activity evaluation using mass spectrometry and fluorimetry**  
Brîndușa Alina Petre<sup>1</sup>, Laura Darie-Ion<sup>1</sup>, Robert Grădinaru<sup>1</sup>  
<sup>1</sup>Faculty of Chemistry, "Alexandru Ioan Cuza" University of Iași, Romania
- 18<sup>05</sup>-18<sup>20</sup>** **Green synthesis mediated by secondary metabolites extracted from stressed plants**  
Moisa Cristian<sup>1</sup>, Andreea Lupitu<sup>1</sup>, Lucian Copolovici<sup>1</sup>, Dana Copolovici<sup>1</sup>  
<sup>1</sup>Faculty of Food Engineering, Tourism and Environmental Protection and Institute of Technical and Natural Sciences Research-Development-Innovation of "Aurel Vlaicu" University, 2 Elena Drăgoi St, 310330 Arad, Romania
- 18<sup>20</sup>-18<sup>25</sup>** **e-Poster: Design of dual-targeted lipid nanoemulsions for vascular delivery of specialized pro-resolving lipid mediators in atherosclerosis**  
Geanina Voicu<sup>1</sup>, Maria Anghelache<sup>1</sup>, Mariana Deleanu<sup>1</sup>, Mihaela Turtoi<sup>1</sup>, Florentina Safciuc<sup>1</sup>, Ileana Manduteanu<sup>1</sup>, Maya Simionescu<sup>1</sup>, Manuela Calin<sup>1</sup>  
<sup>1</sup>Institute of Cellular Biology and Pathology "N. Simionescu", Bucharest, Romania

19<sup>45</sup> Gala Dinner - „Casa Universitarilor” restaurant

SUNDAY 23.10.2022

Amphitheater of Zoology "E. Racoviță"

- 10<sup>00</sup>-11<sup>00</sup>** **Workshop - 3R rules & Laboratory animals procedures I**  
**Prof. dr. Bogdan Sevastre: What do we need to know about project authorization? A practical introduction to severity assessment, refinement and reporting.**  
*University of Agricultural Sciences and Veterinary Medicine, Faculty of Veterinary Medicine, Cluj-Napoca, Romania*
- 11<sup>00</sup>-11<sup>10</sup>** **Coffee break - Science Café**
- 11<sup>10</sup>-12<sup>00</sup>** **Workshop - 3R rules & Laboratory animals procedures II**  
**Gino Rosca - Scientific Department Coordinator (DELTAMED)**  
**DELTAMED - A reliable partner, always open to new challenges**
- 13<sup>00</sup>-15<sup>00</sup>** **Social program with Cluj Guided Tours (registration here: <https://biogeo.ubbcluj.ro/rscb2022/index.php/social-events/>)**

