



## **INTERNATIONAL CONFERENCE**

under the aegis of the **ROMANIAN ACADEMY**

**THE 42<sup>nd</sup> ANNIVERSARY SYMPOSIUM OF THE  
INSTITUTE OF CELLULAR BIOLOGY AND PATHOLOGY  
“NICOLAE SIMIONESCU”**

held jointly with

**THE 38<sup>th</sup> ANNUAL SCIENTIFIC SESSION OF THE  
ROMANIAN SOCIETY FOR CELL BIOLOGY**

**“From basic cell biology to personalized medicine  
during Covid-19 pandemic;  
creativity and vision in a rapidly changing world”**

**November 4-6, 2021**

**VIRTUAL EVENT**

**Thursday - November 4, 2021**

**OPENING OF THE CONFERENCE**

**9.30 – 9.45**

**Acad. Maya Simionescu – Director ICBP-NS and President RSCB**

**Acad. Ioan-Aurel Pop – President of the Romanian Academy**

**Prof. Dr. Adrian Curaj – Director of UEFISCDI**

**SESSION 1**

**ICBP-NS CONFRONTING THE SARS-CoV-2 PANDEMIC ERA**

**Chair: Maya Simionescu**

**9.45 - 12.00**

**Maya Simionescu (Director)**

Uncovering the cell's secrets - a continuous quest of our team

**Ileana Manduteanu (Dept. of Biopathology and Therapy of Inflammation)**

Mechanisms and novel therapies for aortic valve disease in diabetes

**Manuela Calin (Lab. of Medical and Pharmaceutical Bionanotechnologies)**

Targeted therapies based on nanocarriers to reduce vascular inflammation

**Anca Sima (Dept. of Lipidomics)**

In search for new biomarkers for cardiovascular diseases - dysfunctional HDL and epigenetic factors (miRNAs).

**Felicia Antohe (Dept. of Proteomics)**

Moving forward towards proteomics-based precision medicine in non-communicable diseases

**Anca Gafencu (Lab. of Gene Regulation and Molecular Therapies)**

Cellular and molecular manipulations for therapeutic purposes

**Alexandrina Burlacu (Lab. of Stem Cell Biology)**

Harnessing the power of MSC to attenuate the damaging effects of aging, autoimmune diseases and myocardial infarction

	<p><b>Adrian Manea (Molecular and Cellular Pharmacology - Functional Genomics Laboratory)</b></p> <p>Epigenetic mechanisms in cardiometabolic disorders: potential biomarkers and therapeutic targets</p> <p><b>Irina Titorencu (Cell and Tissue Engineering Laboratory)</b></p> <p>Mesenchymal stromal cells: therapeutic potential for skin wound healing</p>
<b>12.00 - 12.30</b>	<b>Coffee break</b>
	<p style="text-align: center;"><b>SESSION 2</b></p> <p style="text-align: center;"><b>SARS-CoV-2 – INFECTION / INVASIVENESS / VACCINE</b></p> <p style="text-align: center;"><b>12.30 – 14.00*</b></p> <p style="text-align: center;"><b>Chair: Maya Simionescu</b></p> <p><i>* The speakers are kindly asked to leave time for questions and discussion</i></p>
12.30 - 12.50	<p><b>Maya Simionescu, ICBP-NS</b></p> <p>Dangerous encounters: SARS-CoV-2 - epithelial/ endothelial cell (Intalniri periculoase: SARS-CoV-2 - celula epiteliala/ endoteliala)</p>
12.50 - 13.20	<p><b>Victor Voicu, Vice-President of the Romanian Academy</b></p> <p>Neuroinvazia virusului SARS-CoV-2, simptomatologie, cai de patrundere si mecanisme patogenice</p> <p>(Neuroinvasion of SARS-CoV-2 virus, symptomatology, penetration routes and pathogenic mechanisms)</p>
13.20 - 13.35	<p><b>Gafincu Grigoriu Daniel- Ionut, “Grigore T. Popa” University of Medicine, Iasi, Romania</b></p> <p>SARS-CoV-2 UVC inactivation-mechanisms and a new air decontamination equipment</p>
	<p><b>Fikadu Tafesse, Oregon Health and Science University, USA</b></p> <p>Vaccine and natural infection elicited COVID-19 immunity against SARS-CoV-2 variants</p> <p><i>(This talk will be given at the end of the Session 4)</i></p>
<b>13.35 – 14.30</b>	<b>Lunch and poster session</b>

	<p style="text-align: center;"><b>SESSION 3</b>  <b>NON-COMMUNICABLE DISEASES: ATHEROSCLEROSIS AND DIABETES</b>  <b>14.30 – 16.25*</b>  <b>Chairs: Anca Sima, Maria Dorobantu</b></p> <p><i>* The speakers are kindly asked to leave time for questions and discussion</i></p>
14.30 – 14.55	<p><b>Maria Dorobantu</b>, Floreasca Clinical Emergency Hospital, Bucharest, Romania  Genetic aspects in hypertrophic cardiomyopathy: what is new?</p>
14.55 – 15.15	<p><b>Camelia Stancu</b>, ICBP-NS  New biomarkers for risk stratification in peripheral artery disease patients – proteins of dysfunctional HDL</p>
15.15 – 15.30	<p><b>Viorel Suica</b>, ICBP-NS  Cardiac alarmins as indicators of the efficacy of hypolipidemic treatment in experimental hyperlipidemia</p>
15.30-15.45	<p><b>Laura Toma</b>, ICBP-NS  Endothelial dysfunction in diabetes is aggravated by glycated lipoproteins; novel molecular therapies</p>
15.45 – 16.00	<p><b>Violeta Trusca</b>, ICBP-NS  Understanding the apolipoprotein E gene regulation, a key step toward the development of novel therapies for atherosclerosis</p>
16.00 – 16.25	<p><b>Anca Dobrian</b>, Eastern Virginia Medical School, USA  Learning to listen: understanding extracellular vesicle chatter in obesity co-morbidities</p>
<b>16.25 – 17.00</b>	<b>Coffee break</b>
	<p style="text-align: center;"><b>SESSION 4 - PhD STUDENTS' PRESENTATIONS</b>  <b>NON-COMMUNICABLE DISEASES: ATHEROSCLEROSIS, DIABETES AND CANCER</b>  <b>17.00 – 18.10*</b>  <b>Chairs: Alexandrina Burlacu, Carmen Cotrutz</b></p> <p><i>* The speakers are kindly asked to leave time for questions and discussion</i></p>
17.00 - 17.10	<p><b>Vasile Grecu</b>, “Grigore T. Popa” Univ. of Medicine, Iasi, Romania  The importance of determining and correlating the expression of VEGFR-1, CD4, and CD8 in the evaluation of acute rejection of cardiac allografts – correlative immunohistochemical study</p>

17.10 – 17.20	<b>Teodora Barbalata, ICBP-NS</b> MicroRNAs profiling in the heart and liver of high-fat diet induced hyperlipidemic hamster
17.20 - 17.30	<b>Alexandra Lazar, ICBP-NS</b> Activation of histone acetyltransferase p300/CBP - dependent signalling pathways induces oxidative stress, inflammation, and fibrosis in the kidney of diabetic mice
17.30 – 17.40	<b>Evelyn Rusu, ICBP-NS</b> MiRNAs generated from Meg3-Mirg locus are downregulated during aging
17.40 – 17.50	<b>Ioana Karla Comarita, ICBP-NS</b> Therapeutic potential of stem cell- derived extracellular vesicles on atherosclerosis-induced vascular dysfunction
17.50 - 18.00	<b>Maria Anghelache, ICBP-NS</b> Preparation and characterization of macrophage-membrane-coated nanoemulsions for delivery of specialized pro-resolving lipid mediators of inflammation
18.00 – 18.10	<b>Botezatu Ionut Catalin, “Grigore T. Popa” Univ. of Medicine, Iasi</b> Expression of MT1-MMP and CD147 in gingival tissue of patients with diabetes mellitus-corerelative immunohistochemical study

### Friday - November 5, 2021

	<b>SESSION 5</b> <b>CELLULAR DYNAMICS IN DISTRESS AND DISEASE</b> <b>9.30 – 11.05*</b> <b>Chair: Anca Gafencu</b> <i>* The speakers are kindly asked to leave time for questions and discussion</i>
09.30 - 10.00	<b>Stefan Constantinescu, Catholic Univ. of Louvain, Belgium</b> Clonal hematopoietic driver and epigenetic mutations in myeloid cancers: relevance beyond hematology
10.00 - 10.25	<b>Shlomo Sasson, The Hebrew University of Jerusalem, Israel</b> Monounsaturated fatty acids protect insulin-secreting beta cells against free fatty acid-induced cytotoxicity

10.25 - 10.50	<b>Simona Chera, University of Bergen, Norway</b> Mapping islet cell interconversion phenomena
10.50 - 11.05	<b>Mirel Adrian Popa, ICBP-NS</b> The role of FGFR2 signalling in modulating MMP/TIMP balance in cardiac myofibroblasts
<b>11.05 – 11.30</b>	<b>Coffee break</b>
	<b>SESSION 6</b> <b>THE ANNUAL GENERAL MEETING OF RSCB MEMBERS -</b> <b>REPORTS OF THE PRESIDENTS OF THE SOCIETY BRANCHES</b> <b>11.30 – 13.00</b> <b>Chair: Maya Simionescu</b>
	<b>Antoaneta Chesca, President RSCB - Brasov Branch</b> <b>Carmen- Elena Cotrutz, President RSCB - Iasi Branch</b> <b>Anca Hermenean, President RSCB - Arad Branch</b> <b>Catalina Pisoschi, President RSCB - Craiova Branch</b> <b>Daciana Sava, President RSCB - Constanta Branch</b> <b>Anca Ileana Sin, President RSCB - Targu Mures Branch</b> <b>Doina Verdes, President RSCB - Timisoara Branch</b> <b>TBA, President RSCB - Cluj Branch</b> <b>Maria Tolbaru, Accountant of RSCB</b>
<b>13.00 – 13.40</b>	<b>Lunch and poster session</b>
	<b>SESSION 7</b> <b>PhD STUDENTS' PRESENTATIONS</b> <b>CELLS AND CELLULAR DERIVATIVES IN THERAPY</b> <b>13.40 – 15.10*</b> <b>Chairs: Felicia Antohe, Anca Hermenean</b>  <i>* The speakers are kindly asked to leave time for questions and discussion</i>
13.40 - 13.50	<b>Daniela-Madalina Iacomi, ICBP-NS</b> Generation and characterization of an immortalized human adipose-derived mesenchymal stromal cell line
13.50 - 14.00	<b>Laura Maria Daian, ICBP-NS</b> Living under stress - Evaluating changes in $\beta$ cells homeostasis

14.00 - 14.10	<b>Aurel Cerveanu –Hogas, ICBP-NS</b> Use of exosomal protein cargo for the prediction and management of gestational diabetes mellitus
14.10 - 14.20	<b>Raluca Tutuianu, ICBP-NS</b> Human mesenchymal stromal cells - derived exosomes promote skin wound healing; mechanisms involved
14.20 – 14.30	<b>Cristina-Andreea Mihaila, ICBP-NS</b> Polarized N1 and N2 neutrophils acquire distinct phenotypes and functions
14.30 – 14.40	<b>Neli Olah, “Vasile Goldis” Western University of Arad, Romania</b> Morpho-anatomical and phytochemical study of the <i>Corylus L.</i> species (buds)
14.40 - 14.50	<b>Rebeca Simona Ignat, University of Bucharest</b> Antifibrotic effects of <i>Corylus avellana</i> gemmotherapeutic extract reinforced with chrysin/cyclodextrin nanocomplexes on hepatic stellate cells
14.50 - 15.00	<b>Letitia Ciortan, ICBP-NS</b> High glucose induced changes in valvular endothelial cells phenotype in a 3D model of aortic valve disease
15.00 – 15.10	<b>Geanina Voicu, ICBP-NS</b> VCAM-1 targeted lipopolyplexes carrying Runx2-shRNA mitigate the osteodifferentiation of 3D-cultured human valvular interstitial cells
<b>15.10 – 15.40</b>	<b>Coffee break</b>
	<b>SESSION 8</b> <b>CARDIOMYOPATHY, INFLAMMATION-RESOLUTION,</b> <b>ATHEROSCLEROSIS</b> <b>15.40 – 17.25*</b> <b>Chairs: Elena Butoi, Carmen Cotrutz</b> <i>* The speakers are kindly asked to leave time for questions and discussion</i>
15.40 – 16.05	<b>Alexandru Schiopu, Lund University, Sweden</b> The S100A8/A9 alarmin as potential treatment target in inflammatory cardiomyopathies

16.05 – 16.30	<b>Maria Consiglia Trotta, "Luigi Vanvitelli" Univ. of Campania, Italy</b> Resolvin D1 actions in ocular pathologies
16.30 – 16.55	<b>Elena Butoi, ICBP-NS</b> Polarized neutrophils: versatile players that orchestrate healing or heart failure after myocardial infarction
16.55 - 17.10	<b>Monica Tucureanu, ICBP-NS</b> Cellular and molecular mechanisms of complement proteins in human atherosclerotic plaque progression
17.10 - 17.25	<b>Loredan Nicolescu, ICBP-NS</b> Epigenetic biomarkers for peripheral artery disease
<b>17.25 - 17.45</b>	<b>Coffee break</b>
	<b>SESSION 9</b> <b>GENERAL PATHOLOGY - CELLULAR AND MOLECULAR LEVEL</b> <b>17.45 – 18.50*</b> <b>Chair: Ileana Manduteanu</b> <i>* The speakers are kindly asked to leave time for questions and discussion</i>
17.45 – 18.10	<b>Dan Simionescu, Clemson University, USA</b> Non surgical management of abdominal aortic aneurysms
18.10 – 18.35	<b>Florea Lupu, Oklahoma Medical Research Foundation, USA</b> Coagulopathy and endotheliopathy of bacterial and viral infections
18.35 – 18.50	<b>Doinita Temelie- Olinici, "Grigore T. Popa" Univ. of Medicine, Iasi</b> Ultrastructural characteristics of keratoachantoma – clinical implications



**Saturday - November 6, 2021**

	<p><b>SESSION 10</b>  <b>INNOVATIVE THERAPIES, STEM CELLS</b>  <b>9.30 - 11.05*</b>  <b>Chair: Manuela Calin</b></p> <p><i>* The speakers are kindly asked to leave time for questions and discussion</i></p>
9.30 – 9.55	<p><b>Manuela Calin, ICBP-NS</b>  P-Selectin directed RAGE-shRNA nanocarriers reduce atherosclerosis-associated inflammation in ApoE-deficient mice</p>
9.55 – 10.20	<p><b>Luiza Ghila, University of Bergen, Norway</b>  Modelling pancreatic islet architecture using human induced pluripotent stem cells</p>
10.20 – 10.45	<p><b>Ferenc Fenyvesi, University of Debrecen, Hungary</b>  Application of cyclodextrins and calixarenes in the nanoformulations of bioactive compounds</p>
10.45 – 11.05	<p><b>Bogdan Preda, ICBP-NS</b>  Local microenvironment activates in vivo apoptosis of mesenchymal stromal cells after transplantation</p>
<b>11.05 – 11.30</b>	<b>Coffee break</b>
	<p><b>SESSION 11</b>  <b>CELLULAR MODIFICATIONS UNDER STRESS</b>  <b>11.30 – 13.30*</b>  <b>Chairs: Gallia Butnaru, Larisa Andronic</b></p> <p><i>* The speakers are kindly asked to leave time for questions and discussion</i></p>
11.30 – 11.55	<p><b>Larisa Andronic, IGPPP Chisinau, Republic of Moldova</b>  Cells and biotic stress in plant virus-host systems</p>
11.55 – 12.20	<p><b>Mihaela Corneanu, USAMVB Timisoara, Romania</b>  Cyto and genotoxicity of soil and water pollutants</p>

12.20- 12.45	<b>Tatiana Saltanovici, IGPPP Chisinau, Republic of Moldova</b> Associated influence of viral pathogens and high temperature on male tomato gametophyte
12.45 – 13.00	<b>Miruna Stan, Faculty of Biology Bucharest</b> In vitro research on the anti-cancer potential of some curcumin derivates
13.00 -13.15	<b>Ana Emanuela Botez, “Grigore T. Popa” Univ. of Medicine, Iasi</b> $\beta$ -Defensin and COX-2 expression value in premalignant epithelial lesions: correlative immunohistochemical study
13.15 – 13.30	<b>Pavel Onofrei, “Grigore T. Popa” Univ. of Medicine, Iasi</b> Expression value of MMP-14 and EMMPRIN (CD 147) in benign prostatic hyperplasia – comparative immunohistochemical study
<b>13.30 – 14.00</b>	<b>Lunch and poster session</b>
	<b>ROUND TABLE</b> <b>CELLULAR MODIFICATIONS UNDER STRESS</b> <b>14.00 - 16.00</b> <b>Organiser: Gallia Butnaru</b>
	<b>Larisa Andronic, IGPPP Chisinau</b> <b>Mihaela Corneanu, USAMVB Timisoara</b> <b>Ioan Sarac, USAMVB Timisoara</b> <b>Sorina Popescu, USAMVB Timisoara</b> <b>Violeta Turcus, USAMVB Timisoara</b> <b>Diana Argherie, USAMVB Timisoara</b> <b>Cristina Popescu, “Vasile Goldis” Western University of Arad</b> <b>Viviane Bota, “Vasile Goldis” Western University of Arad</b>
<b>16.00 – 16.30</b>	<b>CLOSING REMARKS</b>