



UNIVERSITATEA BABEŞ-BOLYAI
BABEŞ-BOLYAI TUDOR MĂNEAGHEVICEM
BABEŞ-BOLYAI UNIVERSITÄT
BABEŞ-BOLYAI UNIVERSITY
TRADITIO ET EXCELLENTIA



Facultatea de
Biologie și Geologie
UNIVERSITATEA BABEŞ-BOLYAI



Institute of Biochemistry

The ANNUAL INTERNATIONAL CONFERENCE of RSBMB

September 13-15, 2023 - Cluj-Napoca, Romania

September 13th	13:00-14:00	REGISTRATION	
	14:00-14:30	OPENING CEREMONY	
	14:30-15:30	Plenary lecture 1 – Dr. Mircea Ivan "LincNORS: From Oxygen Sensing to Human Traits" (Chairperson: Prof. Dr. Manuela Banciu)	
	15:30-16:30	Plenary lecture 2 – Dr. Pietro Roversi – "The FEBS National Lecturer" "Structure and function of EDEM:PDI, the glycoprotein misfolding ERAD checkpoint" (Chairperson: Dr. Stefana M Petrescu)	
	16:30-17:00	Coffee break	
	17:00-17:15	Sponsor moment - Dexter "HiBiT Protein Tagging System" - Dr. Kerem Yildirim (Area Manager Central and Eastern Europe-Promega)	
	17:15-18:35	Session 1: Cellular biochemistry - Chairperson: Dr. Tudor Badea	
	17:15-17:35	Deciphering endoplasmic reticulum associated protein degradation: EDEM proteins - Stefana M Petrescu	
	17:35-17:55	New molecular mechanisms involved in melanoma cell resistance to nutritional and chemotherapeutic stress - Filimon Anca, Negroiu Gabriela	
	17:55-18:15	Curcumin reverses the irinotecan acquired resistance in colorectal cancer cells, in vitro - Crucearu Daniel, Gavrilaş Laura, Sava Oana	
18:15-18:35	GPR75, an unusual and mesmerizing novel therapeutic target - Teodora Stratulat, Ramona Tecucianu, Cristin Coman, Aura Ionescu, Cosmin Trif, Anghel S. Andreea, Rodica Badea, Alexandru Babes, Stefana Petrescu, Sorin Tunaru		
19:00 – 22:00	Welcome cocktail – Biodiversity building		
September 14th	8:00 – 9:00	Registration	
	9:00 – 10:00	Plenary lecture 3 – Aaron Ciechanover, MD, DSc – Nobel Prize in Chemistry, "The ubiquitin proteolytic system - from basic mechanisms through disease mechanisms and on to drug development" (Chairperson: Dr. Norica Nichita)	
	10:00 – 11:00	Plenary lecture 4 – Daniela E Matei, MD "Metabolic Dependencies in Ovarian Cancer" (Chairperson: Dr. Livia E. Sima)	
	11:00 – 11:30	Coffee break, Posters	
	11:30-11:50	Sponsor moment - Biozyme "Holotomography: Label-free technology for 3D live cell imaging at scale" - Dr. Aubrey Lambert (Tomocube Inc.)	
	11:50 – 13:10	Parallel sessions: Bio and nanotechnologies for biomedical and environmental applications/ Omics-based developments in bio-medical sciences	
		Bio and nanotechnologies for biomedical and environmental applications (part 1) - Chairperson: Dr. Anca Roşeanu	Omics-based developments in bio-medical sciences - Chairperson: Prof. Dr. Marius Mihasan
	11:50-12:10	New cell -penetrating peptides with antimicrobial properties - Dana Maria Copolovici, Andreea Gostăviceanu, Carmen Popa, Cristian Moisa, Andreea Ioana Lupitu, Oana Gavriluc, Florina Bojin, Lucian Copolovici	Identification of novel potentially active chondroitin/dermatan sulfate domains in human decorin by ion mobility mass spectrometry - Mirela Sarbu, Raluca Ica, Alina D. Zamfir
	12:10-12:30	Iron oxide nanoparticles carried by probiotics in iron absorption - Oana Lelia Pop, Călina Ciont, Dan Cristian Vodnar, Amalia Mesaros	Transcriptomic profiling of halophilic archaeon Haloferax alexandrinus DSM 27206 T grown under silver stress - Doriana Mădălina Buda, Horia Leonard Banciu
	12:30-12:50	The use of functionalized liposomes and extracellular vesicles as drug delivery systems with high cancer-targeting efficacy - Valentin Florian Rauca, Laura Patras, Giorgiana Negrea, Emilia Licarete, Alina Porfire, Lucian Barbu, Lavinia Luput, Alina Sesarman, Manuela Banciu	Targeting tumor cells and ovarian tumor microenvironment using tissue transglutaminase inhibitors - Livia E. Sima, Monica Tudor, Cristian Munteanu, Gabriela Chiritoiu, Florin Jipa, Stefana Orobeti, Felix Sima, Stefana M. Petrescu, Gary E. Schiltz, Daniela Matei
	12:50-13:10	Production of chimeric subviral particles with enhanced immunogenicity for the development of next-generation HBV vaccines - Norica Nichita, Ana-Maria Pantazica, Mihaela-Olivia Dobrica, Catalin Lazar, Catalin Tucureanu, Iuliana Caras, Irina Ionescu, Adriana Costache, Adrian Onu, Jihong Liu- Clarke, Crina Stavaru	
	13:10- 14:00	Lunch	
	14:00 – 15:00	Plenary lecture 5 – Dr. Vlad Pena "Unveiling the Spliceosome: A Genetic Information Processor and Target for Anticancer Drugs" - Chairperson: Dr. Andrei J. Petrescu	
15:00 – 16:00	Plenary lecture 6 – Dr. Tudor Badea "Modeling human de novo heterozygosity using mosaic gene dosage differences in mice" - Chairperson: Adela Pinte		
16:00 – 16:30	Coffee break and posters		

September 14th	16:30 – 18:10	Parallel sessions: Bio and nanotechnologies for biomedical and environmental applications/ Protein structure and interactions	
		Bio and nanotechnologies for biomedical and environmental applications (part 2) - Chairperson: Prof. Dr. Horia Leonard Banciu	Protein structure and interactions - Chairperson: Dr. Vlad Cojocaru
	16:30-16:50	<i>Novel HTS cell based assay for cis acting protease activity identifies Hepatitis C Virus NS2 cysteine protease inhibitors with antiviral activity</i> - Juncu Andrei, Daniel Ion, Paula Forian, Gabi Chiritoiu, Teodor Sulea, Ana Borota, Luminita Crisan, Alina Bora, Sorin Avram, Ovidiu Vlaicu, Dan Otelea, Ursula Bilitewski, Laurentiu Spiridon, Liliana Pacureanu, Costin-Ioan Popescu	<i>Robosample: Harnessing the Power of Constrained Molecular Dynamics and Gibbs Sampling to Investigate Macromolecules</i> - Laurentiu Spiridon , Teodor Asvadur Sulea, Eliza Cristina Martin, Victor Gabriel Ungureanu, Andrei Jose Petrescu
	16:50-17:10	<i>Multifunctional complexes nanolipid - microbubbles for a targeted delivery of antitumor</i> - Mihai Adrian Socaciu , Dumitrita Rugina, Zorita Diaconeasa, Madalina Nistor, Carmen Socaciu	<i>Computational Assisted Investigation of Two Key Protein Families of the Immune System</i> - Petrescu Andrei-J.
		Parallel sessions: Bio and nanotechnologies for biomedical and environmental applications/ Plant and Food Biochemistry	
		Bio and nanotechnologies for biomedical and environmental applications (part 3) - Chairperson: Prof. Dr. Alina Zamfir	Plant and Food Biochemistry - Chairperson: Prof. Dr. Simona Vicaș
	17:10-17:30	<i>Medical devices for skin-wound healing:from bench to in vivo study</i> - Anca Roseanu , Madalina Icriverzi, Paula Ecaterina Florian, Livia Sima, Oana Gherasim, Valentina Gurmazescu, Gabriel Socol, Fabiola Ionita, Cristin Coman	<i>Zeaxanthin oil-in-water nanoemulsions as delivery systems for food or nutraceuticals applications</i> - Adela Pinte a, Patricia Muntean, Andrea Bunea, Francis V. Dulf, Monica Focșan, Cristina Coman, Dumitrița Rugină
	17:30-17:50	<i>Plant-produced Hepatitis C Virus E2-derived glycoproteins for vaccine development</i> - Mihaela-Olivia Dobrica , Andre van Eerde, Catalin Tucureanu, Adrian Onu, Lisa Paruch, Iuliana Caras, Ene Vlase, Hege Steen, Sissel Haugslien, Dominic Alonzi, Nicole Zitzmann, Ralph Bock, Costin Ioan Popescu, Crina Stavaru, Jihong Liu Clarke, Norica Nichita	<i>Crimson Serenade: Anthocyanins Orchestrating Melanoma Defense, Revealing Oxidative Stress and Mitochondrial Membrane Potential through the Enchantment of Fluorescence Free Molecules and Encapsulated Brilliance</i> - Dumitrița Rugină , Mădălina Nistor, Zorita Diaconeasa, Monica Focșan, Luiza Găină, Mihai Cenariu, Roxana Pop, Carmen Socaciu, Adela Pinte
	17:50-18:10	<i>Extracellular vesicles alter the adaptive immune landscape driving tumor progression or regression in a murine fibrosarcoma model</i> - Laura Patras , Kayleen Bailey, Miho Hatano, Angela Di Giannatale, Ayuko Hoshino, Han Sang Kim, Henrik Molina, Jack Bui, Doru Paul, Irina Matei, David Lyden	<i>The neurological effects of <i>Glaucosciadium cordifolium</i> (Boiss.) Burt & Davis essential oil in a zebrafish model of cognitive impairment</i> - Razvan Stefan Boiangiu , Eyup Bagci, Gabriela Dumitru, Lucian Hritcu, Elena Todirascu-Ciornea
	18:10 – 19:00	Poster session	
19:30 – 22:00	Gala dinner		
September 15th	8:30 – 9:30	Plenary lecture 7 – Dr. Vlad Cojocaru "Transcription factors meet chromatin under the computational nanoscope" (Chairperson: Dr. Costin-Ioan Popescu)	
	9:30 – 11:00	Young scientist's forum I (Chairpersons: Prof. Dr. Sanda Andrei; Lect. Dr. Alina Sesărman)	
	9:30-9:40	<i>QbD based development of drug and genetic material co-loaded liposomes for regeneration of chondrocytes</i> - Saketh Reddy Ranamalla , Alina Silvia Porfire, Emilia Licarete, Manuela Banciu, Ioan Tomuta	
	9:40-09:50	<i>Phenolic profile of micro- and nano-encapsulated olive leaf extract in biscuits during in vitro gastrointestinal digestion</i> - Călina Ciont , Graziana Difonzo, Antonella Pasqualone, Simona Maria Chis, Florica Ranga, Katalin Szabo, Elemer Simon, Anca Naghiu, Lucian Barbu-Tudoran, Dan Cristian Vodnar, Oana Lelia Pop	
	9:50-10:00	<i>Hepatitis C Virus Envelope Protein E2 Antigen Design and Characterization for Vaccine Development</i> - Lia-Maria Cucos , Teodor Asvadur Șulea, Laurențiu Spiridon, Iuliana Caras, Irina Ionescu, Adriana Costache, Crina Stavaru, Norica Nichita, Costin-Ioan Popescu	
	10:00-10:10	<i>Reacting to stress: upregulating the genes involved in polyhydroxybutyrate synthesis during nutrient starvation by <i>Halomonas elongata</i> DSM 2581 T</i> - Andreea-Melisa Tripon , Adorján Cristea, Horia Leonard Banciu	
	10:10-10:20	<i>Overcoming doxorubicin resistance in B16.F10 melanoma cells by targeting Hypoxia-Inducible Factor-1 alpha</i> - Bogdan Dume , Alina Sesărman, Manuela Banciu, Emilia Licărete	
	10:20-10:30	<i>"Humanization" of the N-glycosylation pathway in <i>Nicotiana benthamiana</i> via CRISPR/Cas9 technology significantly improves the immunogenicity of HBV antigens and the virus- neutralizing antibody response in vaccinated mice</i> - Ana-Maria Pantazică , André van Eerde, Mihaela-Olivia Dobrică, Iuliana Caras, Irina Ionescu, Adriana Costache, Cătălin Tucureanu, Hege Steen, Cătălin Lazăr, Inger Heldal, Sissel Haugslien, Adrian Onuc, Crina Stăvaruc, Jihong Liu Clarke, Norica Nichita	
	10:30-10:40	<i>Simvastatin- Induced energy metabolic shift towards lipid metabolism in B16.F10 murine melanoma cells</i> - Giorgiana G. Negrea , Loredana Bălăcescu, Alina Sesărman, Manuela Banciu	
	10:40-10:50	<i>Anti-dementia effects of mansonin A, mansonone G, and 6-paradol in zebrafish (<i>Danio rerio</i>)</i> - Honceriu Iasmina , Brinza Ion, Boiangiu Razvan Stefan, Hritcu Lucian	
10:50-11:00	<i>Baicalein 5,6-dimethyl ether prevent scopolamine-induced memory impairment in zebrafish by increasing the creb1 protein level and the mRNA expression of bdnf and creb1 gene</i> - Ion Brinza , Alexandru Bogdan Stache, Razvan Stefan Boiangiu, Omayma Eldahshan, Dragos Lucian Gorgan, Marius Mihasan, Lucian Hritcu		
11:00 – 11:30	Coffee break and posters		

September 15th	11:30-11:45	Sponsor moment - Dialab "Octet Solutions for Versatile & Rapid Biomolecular Kinetics & Quantitation"- Dr Renata Gronczewska, Sales Manager - SARTORIUS BioAnalytics EEMA
	11:45-12:00	Sponsor moment - Antisel "Reimagine biology with single cell and spatial transcriptomics solutions" - Mohanad Babi, Channel usiness Manager, 10x GENOMICS
	12:00 – 13:00	Young scientist's forum II (Chairpersons: Prof. Dr. Dana Maria Copolovici; Prof. Dr. Andrea Bunea)
	12:00-12:10	Advancing Selenium Analysis: Method Optimization, Validation, and its Application in Assessing Selenium Levels in Selenate-Treated Rats - Petruț Miron , Bogdan Boșca, Andra-Diana Andreicuț, Alina Parvu, Augustin
	12:10-12:20	Evaluation of phenolic compounds from the morphological parts of beechnut (<i>Fagus sylvatica</i> L.) - Alexandra R. Lazăr , Andrei M. Mocan, Andreea Pușcaș, Andruța E. Mureșan, Floricuța Ranga, Alina M. Truță, Vlad Mureșan
	12:20-12:30	Preliminary results on the recovery of coenzyme Q10 from vegetable and animal waste - Andersina Simina Podar , Cristina Anamaria Semeniuc, Floricuța Ranga, Maria-Ioana Socaciu, Melinda Fogarasi, Anca Corina Fărcaș, Dan Cristian Vodnar, Simona Raluca Ionescu, Sonia Ancuța Socaci
	12:30-12:40	In-silico Study of RAGE-S100B Inhibitors - Victor Gabriel Ungureanu , Ioana Popa, Carmen Tănase, Laurențiu Spiridon
	12:40-12:50	Unraveling molecular basis of myeloproliferative neoplasms (MPN) by experimentally constrained modelling and simulation - Șulea A. Teodor , Nicolas Papadopoulos, Stefan N. Constantinescu, Laurentiu Spiridon, Petrescu J. Andrei
	12:50-13:00	Long-read direct RNA nanopore sequencing of the nicotine-related transcriptome of <i>Paenarthrobacter nicotinovorans</i> ATCC 49919 - Amada El-Sabeh , Marius Mihasan
	13:00 – 13:30	Award & Closing ceremony
	13:30 – 14:30	Lunch
14:30 – 20:00	Social program (trip or city tour)	

