



INTERNATIONAL SCIENTIFIC CONFERENCE OF THE BULGARIAN PEPTIDE SOCIETY

27-29 August 2021, Velingrad, Bulgaria

Friday, 27th August 2021

16.00 – 18.15	Registration
18.15 – 18.30	WELCOME WORDS: in Kleptuza Hall Chairperson of the Organizing Committee Prof. Reni Kalfin President of the Bulgarian Peptide Society Prof. Emilia Naydenova
<u>SESSION 1.</u>	PLENARY LECTURES in Kleptuza Hall CHAIRPERSONS: EMILIA NAYDENOVA AND RENI KALFIN
18.30 – 19.00	Anna Maria Papini (Italy) “Aberrantly modified conformational peptide epitopes specific for antibodies, biomarkers of immune-mediated diseases, can be reminiscent of an early infection: the chicken or egg dilemma?”
19.00 – 19.30	Illana Gozes (Israel) “Peptide-based drug development based on the autism/Alzheimer’s-linked activity-dependent neuroprotective protein (ADNP)”
19.30 – 20.00	Paula Gomesh (Portugal) “Antimicrobial peptide-based strategies to tackle chronic skin and soft tissue infections”
20.30 – 22.30	WELCOME COCKTAIL

Saturday, 28th August 2021

<u>SESSION 2.</u> DRUG DESIGN AND BIOLOGICAL ACTIVITY OF PEPTIDES: ORAL PRESENTATIONS <i>in Jundola Hall</i> CHAIRPERSON: TAMARA PAJPANOVA	
9.30 – 9.50	Tamara Pajpanova (Bulgaria) “Unnatural amino acids as a privileged class of building blocks in drug design”
9.50 – 10.10	Vasile Robert Gradinaru, Cosmin Stefan Mocanu, Brindusa Alina Petre, Laura Darie Ion, Gabi Drochioiu, Mihaela Homocianu, Loredana Elena Nita (Romania) “A new bioinspired peptide with potential self-assembly properties”
10.10 – 10.30	Andreas Tzakos (Greece) “Design and development of novel theranostic agents exploiting the malignant tumor microenvironment”

10.30 – 10.50	Selma Arzu Vardar (Turkey) “Exercise induced alterations of circulatory levels of heat shock proteins”
10.50 – 11.10	Nurettin Aydogdu (Turkey) “Irisin and its physiological role in the kidney”
11.10 – 11.40	COFFEE BREAK
11.40 – 12.00	Lubomir Vesekov (France) “Organized oligomers as vectors for cell penetration”
12.00 – 12.20	Tatyana Dzimbova, Fatima Sapundzhi, Nevena Pencheva, Peter Milanov (Bulgaria) “Analysis of the docking results of some selective MOR and DOR ligands”
12.20 – 12.40	Petya Hadzhibozheva, L. Pashova-Stoyanova, Zh. Tsokeva, M. Ganeva, K. Nancheva, G. Ilieva, V. Nanchev, A. Tolekova, Ts. Georgiev (Bulgaria) “Appetite-related peptides in fructose-drinking rat models”

13.00 – 14.00 LUNCH BREAK

<u>SESSION 3.</u> BIOLOGICAL ACTIVITY OF PEPTIDES: ORAL PRESENTATIONS in Jundola Hall	
CHAIRPERSON: PAVLINA DOLASHKA	
14.00 – 14.20	Alessandro Pesaresi (Italy), Dorian Lamba, Lyubomir T. Vezekov, Daniela S. Tsekova “Structure-activity relationship of multitarget directed galanthamine-peptide derivatives designed for the treatment of Alzheimer’s disease”
14.20 – 14.40	Lyudmila Velkova, Aleksandar Dolashki, Ventseslav Atanasov, Dimitar Kaynarov, Asya Daskalova, Pavlina Dolashka (Bulgaria) “Study of novel antimicrobial peptides and glycopeptides in <i>Cornu aspersum</i> mucus”
14.40 – 15.00	Sirine Jaber (Lebanon), Emilia Naydenova, Tsvetelina Angelova, Veronica Nemska, Ivan Iliev, Inna Solikovska, Nelly Georgieva, Dancho Danalev (Bulgaria) “Synthesis, anticancer and antimicrobial activity of shortened analogues of (KLAKLAK) ₂ ”
15.00 – 15.20	Mihaela Belouhova, Yana Topalova, Elmira Daskalova, Lyudmila Velkova, Pavlina Dolashka (Bulgaria) “Antibacterial effect of two peptides/proteins fractions from snail mucus – fluorescent and digital image analysis”
15.30 – 16.00	COFFEE BREAK
16.00 – 16.20	Asya Daskalova, Lyudmila Velkova, Aleksandar Dolashki, Dimitar Kaynarov, Ventseslav Atanasov, Pavlina Dolashka (Bulgaria) “Investigation of conformational changes in bioactive fractions and peptides from mucus of <i>Cornu aspersum</i> by fluorescence spectroscopy”
16.20 – 16.40	Momchil Kermedchiev, Konstantin Angelov, Alexandar Dolashki, Lyudmila Velkova, Pavlina Dolashka (Bulgaria) “Treatment of wounds with natural substances”
16.40 – 17.00	PRESENTATION ELTA Company

SESSION 4. PEPTIDE CHEMISTRY: E-POSTER PRESENTATIONS in Jundola Hall	
CHAIRPERSON: DANCHO DANALEV	
17.30 – 17.35	Aleksandar Dolashki, Lyudmila Velkova, Pavlina Dolashka (Bulgaria) “Novel peptides in the hemolymph of <i>Cornu aspersum</i> snail identified by mass spectrometry”
17.35 – 17.40	Nikolay G. Vassilev, Svetlana Simova, Miroslav Dangelov, Lyudmila Velkova, Venceslav Atanasov, Aleksandar Dolashki, Pavlina Dolashka (Bulgaria) “Comparatively study of metabolites profiling of <i>Helix aspersa</i> mucus, <i>Helix lucorum</i> hemolymph and <i>Rapana venosa</i> hemolymph using ¹ H NMR and mass spectrometry”
17.40 – 17.45	Dimitar Kaynarov, Lyudmila Velkova, Aleksandar Dolashki, Asya Daskalova, Ventseslav Atanasov, Pavlina Dolashka (Bulgaria) “Identification of novel glycopeptides identified in the mucus of garden snail <i>Cornu aspersum</i> by mass spectrometry”
17.45 – 17.50	Aleksandar Dolashki, Lyudmila Velkova, Dimitar Kaynarov, Ventseslav Atanasov, Asya Daskalova, Pavlina Dolashka (Bulgaria) “Determination of the conformational stability of peptides from <i>Helix aspersa</i> snail by circular dichroism”
17.50 – 17.55	Yuliana Raynova, D. Yancheva, S. Todinova, M. Guncheva, K. Idakieva (Bulgaria) “Conformation analysis of modified <i>Helix lucorum</i> hemocyanin”
17.55 – 18.00	Veronika Karadjova, Dessislava Borisova, Spaska Yaneva, Emilia Naydenova, Trayana Dolchinkova, Vladislava Ivanova, Dancho Danalev (Bulgaria) “Synthesis and characterization of copper complexes with peptide ligand as potential anticancer agents”
18.00 – 18.05	Aleksandra Tencheva, Radoslav Chayrov, Ivanka Stankova (Bulgaria) “Amantadine and rimantadine analogues with glycine based amino acids and small peptides”

20.00 – 23.00 GALA DINNER

Sunday, 29th August 2021

SESSION 5. BIOLOGICAL ACTIVITY OF PEPTIDES: E-POSTER PRESENTATIONS in Jundola Hall	
CHAIRPERSON: IVANKA STOINEVA	
9.30 – 9.35	Tanya Dimova, P. Rashev, S. Manchev, D. Tsekova, L. Vezekov (Bulgaria) “ <i>In vivo</i> and <i>in vitro</i> evaluation of the anti-inflammatory potential of 4-aminopyridine derivatives”
9.35 – 9.40	Boryana Yakimova, L. Dobрева, P. Kardaleva, S. Danova, I. Stoineva (Bulgaria) “New natural and synthetic peptides as positive impact on hypertension”
9.40 – 9.45	Lubomir Petrov, Mihail Kachaunov, Albena Alexandrova, Elina Tsvetanova, Almira Georgieva, Lyudmila Velkova, Ventseslav Atanasov, Aleksander Dolashki, Pavlina Dolashka (Bulgaria) “Antioxidant activity of hemolymph isolated from <i>Rapana venosa</i> ”

9.45 – 9.50	Maria Lazarova, Lyubka Tancheva, Lyudmila Velkova, Alexander Dolashki, Diamara Uzunova, Petya Gavrilo, Krasimira Tasheva, Teodora Taseva, Yordan Hodzhev, Atanas G. Atanasov, Miroslava Stefanova, Ventseslav Atanasov, Reni Kalfin, Pavlina Dolashka (Bulgaria) “Snail (<i>Helix aspersa</i>) extract improves impaired spatial learning and memory in Alzheimer’s type of dementia by regulating CREB/BDNF signaling”
9.50 – 9.55	Elina Tsvetanova, Albena Alexandrova, Almira Georgieva, Lyubka Tancheva, Maria Lazarova, Reni Kalfin, Miroslava Stefanova, Alexander Dolashki, Lyudmila Velkova, Pavlina Dolashka (Bulgaria) “Neuroprotective and antioxidant effect of fresh snail extract (<i>Helix aspersa</i>) in rat’s brain in Alzheimer’s type of dementia”
9.55 – 10.00	Maya Chochkova, Anna-Maria Hristova, Boyka Stoykova, Yuhuan Li, Iva Tsvetkova, Hristo Najdenski, Yavor Mitrev, Martin Šticha (Bulgaria) “In vitro antimicrobial investigations of substituted cinnamic acid amides”
10.00 – 10.05	Aneliya Balacheva, Roumyana Detcheva, Tamara Pajpanova (Bulgaria) “Antiproliferative effect of novel RGD peptide analogues”
10.05 – 10.10	Proletina Kardaleva, Vadimir Vanik, Zuzana Gazova, Diana Fedunova, Denitsa Panteleeva, Maya Guncheva (Bulgaria) “Effect of amino acid-based ionic liquids on insulin amyloid aggregation”
10.10 – 10.15	Ekaterina Krumova, Pavlina Dolashka, Nedelina Kostadinova, Radoslav Abrashev, Jeny Miteva-Staleva, Aleksander Dolashki, Lyudmila Velkova, Vladislava Dishlijska, Boryana Spasova, Maria Angelova (Bulgaria) “Antioxidant properties of a low molecular peptide fraction from the garden snail <i>Helix aspersa</i> possessing antifungal activity”
10.15 – 10.20	Ivanka Stankova, Aleksandra Tencheva, Radoslav Chayrov, Tsvetelina Angelova, Veronica Nemska, Nelly Georgieva, Dancho Danalev (Bulgaria) “Biological activity of amino acid derivatives of memantine”
10.30 – 11.00	COFFEE BREAK
<u>SESSION 6. PEPTIDE CHEMISTRY: E-POSTER PRESENTATIONS</u> in Jundola Hall	
CHAIRPERSON: NIKOLAY VASSILEV	
11.00 – 11.05	Iliyan Ognyanov, Ivan Bogdanov, Maya Georgieva, Martina Peeva, Aneliya Balacheva, Toni Kühl, Tamara Pajpanova, Diana Imhof, Nikolay T. Tzvetkov (Bulgaria) “Neurotensin (NT8-13) peptide mimetics: virtual multi-target activity estimation and stability studies”
11.05 – 11.10	Fatima Sapundzhi, Tatyana Dzimbova (Bulgaria) “Application of molecular docking programs and virtual screening for drug design”
11.10 – 11.15	Tatyana Dzimbova, Atanas Chapkanov (Bulgaria) “Combined action of his-leu analogues on angiotensin converting enzyme (ACE) and angiotensin receptor (AR)”
11.15 – 11.20	Tsonova J, Ivanov I., Naidenova E. (Bulgaria) “Design and synthesis of new tyrosine kinase inhibitors for the treatment of chronic myeloid leukemia and other malignant diseases”
11.20 – 11.25	Dessislava Borisova, Emilia Naydenova, Boryana Borisova, Dancho Danalev (Bulgaria) “Synthesis and characterization of new analogues of octreotide and vapreotide containing citrulline”

11.25 – 11.30	Petar Todorov, Stela Georgieva, Petia Peneva (Bulgaria) “Synthesis and characterization of new N-modified hybrid hemorphin analogues”
11.30 – 11.35	Petar Todorov, Desislava Staneva, Stela Georgieva, Petia Peneva, Ivo Grabchev (Bulgaria) “Synthesis and characterization of new antimicrobial fluorescent peptides for antiviral protection of textile materials”

SESSION 7. CHEMISTRY AND BIOLOGICAL ACTIVITY: E-POSTER PRESENTATIONS	
<i>in Jundola Hall</i>	
CHAIRPERSON: NIKOLAY TZVETKOV	
12.00 – 12.05	Cosmin Stefan Mocanu, Vasile Robert Gradinaru, Gabi Drochioiu (Romania) “Metal ions interaction with amyloid-beta monomer and fibril, a theoretical and experimental approach: Implications for Alzheimer's disease progression”
12.05 – 12.10	Tzvetelin Georgiev, Petya Hadzhibozheva, Y. Karamalakova, K. Georgieva, F. Perinkadakatt, J. Ananiev (Bulgaria) “Therapeutic effects of glutathione bioavailability modulation in the light of ferroptosis”
12.10 – 12.15	Ivelina Himcheva, Emilia Naydenova, Galiya Stavreva, Adriana Bocheva (Bulgaria) “Participation of the opioidergic and nociceptinergic systems in the effects of nociceptin and new analogues after acute and chronic immobilization stress”
12.15 – 12.20	Hristina Nocheva, Georgi Bogdanov, Roman Tashev, Rumen Nikolov (Bulgaria) “The endogenous cannabinoid system and nitric oxide interact in modulation of cold stress-induced analgesia”
12.20 – 12.25	Roman Tashev, Hristina Nocheva, Margarita Ivanova (Bulgaria) “Lateralized active avoidance learning and memory to AngII and losartan microinjected into amygdala in rats depression model”
12.25 – 12.30	Luiza Madalina Gradinaru, Maria Bercea, Robert Vasile Gradinaru (Romania) “BSA/polymer hybrid hydrogels as carrier for neomycin delivery”

12.30 – 13.00 CLOSING REMARKS AND YOUNG SCIENTIST AWARDS

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