



# INTERNATIONAL SCIENTIFIC CONFERENCE OF THE BULGARIAN PEPTIDE SOCIETY

12-14 June 2020, Velingrad, Bulgaria

## Friday, 12<sup>th</sup> June 2020

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| <b>16.30 – 18.00</b> | <b>REGISTRATION</b>   |
| <b>18.15 – 18.30</b> | <b>WELCOME WORDS:</b><br>President of the Bulgarian Peptide Society Prof. Emilia Naydenova<br>Chairperson of the Organizing Committee Prof. Reni Kalfin   |
| <b>18.30 – 19.20</b> | <b>PLENARY LECTURE:</b><br><b>Anna-Maria Papini (Italy)</b> “From a synthetic N-glycosylated peptide probe to an hyper-glycosylated adhesin protein antigen: a bacterial infection triggering an antibody mediated form of multiple sclerosis?” |
| <b>19.20 – 20.15</b> | <b>PLENARY LECTURE:</b><br><b>Illana Gozes (Israel)</b> “Novel Peptide Treatment Development in ADNP and the Autism ADNP Syndrome”  |
| <b>20.15 – 20.30</b> | <b>ANNOUNCEMENT OF THE 2020 BPS HONORARY FOREIGN MEMBERS:</b><br>Prof. Anna-Maria Papini (Italy)<br>Prof. Illana Gozes (Israel)   |
| <b>20.45 – 22.30</b> | <b>WELCOME COCKTAIL</b>   |

## Saturday, 13<sup>th</sup> June 2020

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| <b>Session 1. Synthesis of Peptides. Chairperson: Tamara Pajpanova</b> |  |
| <b>8.30 – 9.00</b>   | <b>Paula Gomes (Portugal)</b> “Antimicrobial peptide-based strategies to tackle chronic skin and soft tissue infections”   |
| <b>9.00 – 9.30</b>   | <b>Dancho Danalev (Bulgaria), Pajpanova T., Borisova D., Yaneva S., Dzimbova T., Georgieva M., Balacheva A., Tzakos A., Givechev I., Zaharieva Z., Naydenova E.</b> “New peptides and peptide conjugates for target therapy of cancer” |
| <b>9.30 – 10.00</b>  | <b>Lyubomir Vezekov (France)</b> “Development of first in class inhibitors of the tubuline detyrosination enzymes VASH1 and 2”   |
| <b>10.00 – 10.45</b>   | <b>COFFEE BREAK</b>  |

| <b>Session 2. Pharmacology of Peptides. Chairperson: Anna Tolekova</b> |  |
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| <b>10.45 – 11.15</b>   | <b>Reni Kalfin (Bulgaria), M. Lazarova, N. Ivanovska, L. Tancheva</b><br>“Vasoactive intestinal peptide – a VIP protective peptide”  |
| <b>11.15 - 11.45</b>   | <b>Lyubka Tancheva (Bulgaria), T. Pajpanova, M. Lazarova, S. Dragomanova, L. Alova, M. Stefanova, R. Kalfin</b> “Beneficial effects of neurotensin analogue in experimental models of Alzheimer and Parkinson’s disease” |
| <b>11.45 – 12.30</b>   | <b>Selma Arzu Vardar (Turkey)</b> “Natriuretic peptides: the view of basic science and clinical aspect”  |

**12.30 – 13.30 LUNCH BREAK**

| <b>Session 3. Synthesis of Peptides. Chairperson: Emilia Naydenova</b>   |  |
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| <b>14.30 – 15.00</b>   | <b>German Perlovich (Russia)</b> “Drug design based on adamantane and memantine derivatives”   |
| <b>15.00 – 15.30</b>   | <b>Tamara Pajpanova (Bulgaria)</b> “Unnatural amino acids as a privileged class of building blocks in drug design”   |
| <b>15.30 – 16.00</b>   | <b>Andreas Tzakos (Greece)</b> “Tailoring prodrugs: from drug delivery to smart molecular devices”   |
| <b>16.30 – 16.30</b>   | <b>Tatyana Dzimbova (Bulgaria), N. Pencheva, P. Milanov</b><br>“Determination of the structural requirements of $\mu$ -opioid receptor ligands with docking”   |
| <b>16.30 – 17.15</b>   | <b>COFFEE BREAK</b>  |
| <b>Session 4. Pharmacology of Peptides. Chairperson: Lyubka Tancheva</b> |  |
| <b>17.15 – 17.45</b>   | <b>Nurettin Aydogdu (Turkey)</b> “Irisin and its physiopathological role in the kidney”  |
| <b>17.45 – 18.15</b>   | <b>Doriano Lamba (Italy)</b> “Multitarget peptide drug design strategy”  |
| <b>Session 5. Young scientists’ session. Chairperson: Dancho Danalev</b> |  |
| <b>18.15 – 18.35</b>   | <b>Sirine Jaber (Lebanon), E. Naydenova, I. Iliev, I. Sulikovska, Z. Zaharieva, I. Givechev, D. Danalev</b> “Synthesis and studies on modified analogues of antimicrobial peptide (KLAKLAK) <sub>2</sub> ”                 |
| <b>18.35 – 18.55</b>   | <b>Maya Georgieva (Bulgaria), T. Pajpanova</b> “Anti-proliferative potential of modified regulator of apoptosis”   |
| <b>18.55 – 19.15</b>   | <b>Petya Hadzhibozheva (Bulgaria), A. Tolekova, L. Pashova-Stoyanova, Zh. Tsokeva, K. Nancheva, R. Sandeva, G. Ilieva, M. Ganeva, V. Nanchev, Ts. Georgiev</b> “Appetite-related peptides in fructose-drinking rat models” |
| <b>19.15 – 19.30</b>   | <b>DISCUSSION</b>  |

**21.00 – 23.30 GALA DINNER**

## Sunday, 14<sup>th</sup> June 2020

| Session 6. E-poster presentations. Chairperson: Tatyana Dzimbova |  |
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| <b>9.00 – 9.40</b>   | <p><b>Desislava Borisova, D. Danalev, T. Pajpanova, S. Yaneva, T. Dzimbova, M. Georgieva, A. Balacheva, A. Tzakos, I. Givechev, Z. Zaharieva, E. Naydenov</b> “New peptides and peptide conjugates for target therapy of cancer”</p> <p><b>Daniela Pechlivanova, B. Assenov, E. Dzhambazova, P. Peneva, P. Todorov</b> “Behavioral effects of newly synthesized hemorphin analogues”</p> <p><b>Ivelina Himcheva, N. Angelova, A. Grigorian, E. Naydenova, A. Dimitrova, A. Bocheva</b> “Analgesic effects on the nociception of newly nociceptin analogues”</p> <p><b>Hristian Staykov, R. Nikolov, K. Yakimova.</b> Hypothalamic serotonin level after long-term administration of an opioid-receptor agonist</p> <p><b>Maya Georgieva, A. Balacheva, R. Detcheva, D. Danalev, E. Naydenova, T. Pajpanova</b> “RGD/Somatostatin hybrid structures, as new agents for targeted anticancer therapy”</p> |
| <b>9.40 – 10.00</b>  | <b>DISCUSSION</b>  |
| <b>10.00 – 10.40</b>   | <p><b>Aneliya Balacheva, R. Detcheva, T. Pajpanova</b> “Antiproliferative effect of novel RGD peptide analogues”</p> <p><b>Fatima Sapundzhi, T. Dzimbova</b> “Determination of ligand-binding sites using docking approaches”</p> <p><b>Yanka Karamalakova, G. Nikolova, A. Sharma, R. Kumar Sharma, A. Zheleva, V. Gadjeva, A. Tolekova</b> “N-[N<sup>1</sup>-(2-chloroethyl)-N<sup>2</sup>-nitroso-carbamoyl-glycine amide of 2,2,6,6-tetramethyl-4-aminopiperidine-1-oxyl modulates gamma radiation-induced conditioned taste aversion”</p> <p><b>Yanka Karamalakova, G. Nikolova, Tz. Georgiev, V. Gadjeva, A. Tolekova, V. Petrova-Tacheva</b> “Turmerin, a polypeptide in Curcuma longa L., prevent Bleomycin-induced oxidative damages in animal models”</p>  |
| <b>10.40 – 11.00</b>   | <b>DISCUSSION</b>  |
| <b>11.00 – 11.40</b>   | <p><b>Silvia Mihailova, T. Pajpanova</b> “Synthesis, biological evaluation and structural analysis of novel NT analogues”</p> <p><b>Antonia Hristova, S. Valcheva-Kuzmanova, T. Pajpanova</b> “Synthesis and biological effects of new analogues of Bactenecin 2A”</p> <p><b>Dimana Dimitrova, S. Valcheva-Kuzmanova, T. Pajpanova</b> “Synthesis and analysis of new Lactoferricin analogues”</p> <p><b>Silvia Angelova</b> “Binding of Antihypertensive Drug Captopril and Milk-Derived Tripeptide VPP (Val-Pro-Pro) to Angiotensin I-Converting Enzyme (ACE): a DFT study”</p>  |
| <b>11.40 – 12.00</b>   | <b>DISCUSSION</b>  |

**12.00 – 13.30 LUNCH BREAK**

| <b>Session 7. E-poster presentations. Chairperson: Rositsa Zamfirova</b> |   |
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| <b>14.00 – 15.00</b>   | <p><b>Michaella Aleksova, D. Palov, G. Radeva</b> “In vitro antibacterial activity of biologically active substances from garden snail <i>Helix lucorum</i> and from sea snails <i>Rapana venosa</i> against Gram-negative bacteria”</p> <p><b>Armine Grigoryan, R. Trifonov, T. Dineva, T. Betova, S. Popovska, A. Bocheva, A. Dimitrova</b> „The expression of Sclerostin in bone tissue at estrogen-deficient osteoporosis in female wistar rats”</p> <p><b>Andrei Popatanasov, T. Pajpanova, L. Tancheva</b> “Effects of USV (ultra sound vocalization) in Parkinson’s disease experimental model in rats”</p> <p><b>Maya Chochkova, A.-M. Hristova, B. Stoykova, A. Tencheva, Y. Mitrev, M. Štícha</b> “Design of novel N-nitrocinnamoyl amides as potential antioxidants and neuroprotective agents”</p> <p><b>Milen Hristov, Boycho Landzhov, Krassimira Yakimova</b> “Effects of leptin on NADPH-diaphorase reactivity in the arcuate nucleus of the hypothalamus in lean and obese rats”</p> <p><b>Roman Tashev, M. Velikova</b> “Lateralized hippocampal effects of angiotensin IV”</p> |
| <b>15.00 – 15.20</b>   | <b>DISCUSSION</b>   |
| <b>15.20 – 16.00</b>   | <b>COFFEE BREAK</b>   |
| <b>16.00 – 16.50</b>   | <p><b>Galina Nikolova, Y. Karamalakova, A. Zheleva, V. Gadjeva, A. Tolekova</b> “Glycine-amide containing nitrosourea prevent oxidative changes in Levodopa animal experimental models”</p> <p><b>Galina Nikolova, Y. Karamalakova, A. Zheleva, V. Gadjeva, A. Tolekova</b> “Pretreatment with peptide-containing SLCNUgly and Rosa Damascena L. oil protected redox status in L-DOPA – induced oxidative damages in brain”</p> <p><b>Veselina Petrova-Tacheva, V. Nanchev, V. Slavova, D. Georgieva, V. Ivanov, K. Nancheva, A. Tolekova</b> “The effect of extract from <i>Haberlea rhodopensis</i> on some key hormones which regulate the energy status and metabolism of rats with experimentally-induced diabetes of type I”</p> <p><b>Polina Mateeva, P. Todorova, R. Zamfirova</b> “In vitro studies on ACE inhibitory activity of newly synthesized short peptides”</p> <p><b>Maria Lazarova, L. Vezekov, D. Tsekova, D. Uzunova, L. Tancheva, R. Kalfin</b> “Studies on acetylcholinesterase activity of new galantamine derivatives”</p>   |
| <b>16.50 – 17.10</b>   | <b>DISCUSSION</b>   |

**17.15 – 17.30 CLOSING REMARKS, YOUNG AND SENIOR SCIENTIST AWARDS**