



# 17<sup>th</sup> Naples Workshop on Bioactive Peptides

Emerging Peptide Science in 2022

Naples - June 16<sup>th</sup> - 18<sup>th</sup>, 2022

Thursday, June 16 <sup>th</sup>		
13.00-13.15	Welcome address	
SPEAKER	TITLE	
Session 1		
13.15-14.00	<b>PL1 Ronald T. Raines</b> Massachusetts Institute of Technology Cambridge, USA	<i>Lessons from Collagen</i>
14.00-14.20	<b>O1 Lorenzo Stella</b> University of Roma Tor Vergata Roma, Italy	<i>Quantification of the association of antimicrobial peptides with live bacterial cells: what have we learned?</i>
14.20-14.40	<b>O2 Charles Chen</b> Massachusetts Institute of Technology Cambridge, USA	<i>In silico-guided design of membrane active peptide-based therapeutics for biomedical applications</i>
14.40-15.00	<b>O3 Enrico Federico Semeraro</b> University of Graz Graz, Austria	<i>Bridging the activity of lactoferricin derivatives in E. coli and lipid-only membranes: partitioning and kinetics</i>
15.00-15.20	<b>O4 Myriam Cotten</b> William & Mary Virginia, USA	<i>Piscidins: Anti-infective and Anticancer Copper-binding Peptides at the Crossroads of Neuro-immune Interactions</i>
15.20-15.40	<b>O5 Ines Neundorf</b> University of Cologne Cologne, Germany	<i>Multistep translation of a cell-penetrating peptide into an antimicrobial peptide</i>
15.40-16.00	<b>O6 Martin Ulmschneider</b> King's College London, United Kingdom	<i>Spontaneous assembly of functional membrane proteins from soluble membrane active peptides</i>
16.00-16.20	<b>O7 Burkhard Bechinger</b> University of Strasbourg/CNRS Strasbourg, France	<i>Antimicrobial peptides: Mechanism of action and lipid-mediated synergistic interactions within the membranes</i>
16.20-16.40	<i>Coffee Break</i>	
Session 2		
16.40-17.00	<b>O8 Markus Weingarth</b> Utrecht University Utrecht, Netherlands	<i>The mechanisms of Lipid-targeting Antibiotics</i>
17.00-17.20	<b>O9 Chiara Falciani</b> University of Siena Siena, Italy	<i>Antimicrobial peptides against periodontal bacterial infections</i>
17.20-18.00	<b>PL2 Sam Gellman</b> University of Wisconsin Madison, USA	<i>Impact of Backbone Modifications on Informational Properties of Polypeptides</i>

18.00-18.15	<b>O10 Claudia Feurstein</b> Technische Universität Berlin Berlin, Germany	<i>Structure-activity analysis using computational mining of protein databases to assist design of antimicrobial peptides</i>
18.15-18.35	<b>O11 Toni Todorovski</b> Pompeu Fabra University Barcelona, Spain	<i>Peptide-porphyrin conjugates as promising antivirals against brain-targeting viruses</i>
18.35-18.55	<b>O12 Jiří Jiráček</b> Institute of Organic Chemistry and Biochemistry CAS Praha, Czech Republic	<i>Insulin analogues with altered insulin receptor isoform binding specificities and enhanced aggregation stabilities</i>
18.55-19.15	<b>O13 Carla Zannella</b> University of Campania L. Vanvitelli Napoli, Italy	<i>Host defence amphibian peptides and their potential as antiviral agents</i>
19.15	<i>Welcome Party</i>	
<b>Friday, June 17<sup>th</sup></b>		
<b>SPEAKER</b>		<b>TITLE</b>
<b>Session 3</b>		
8.40-09.20	<b>PL3 Kalina Hristova</b> Johns Hopkins University Baltimore, USA	<i>Peptides for transport across biological barriers</i>
09.20-9.40	<b>O14 Rina Aharoni</b> The Weizmann Institute of Science Rehovot, Israel	<i>The story of the peptide-copolymer Glatiramer Acetate (Copaxone) in the treatment of multiple sclerosis: from Bench to Bed side</i>
9.40-10.00	<b>O15 William Wimley</b> Tulane University New Orleans, USA	<i>Using synthetic molecular evolution to identify host cell compatible antimicrobial peptides effective against drug-resistant and biofilm-forming bacteria, in vitro and in vivo</i>
10.00-10.20	<b>O16 Lucia Ferrazzano</b> University of Bologna, Italy	<i>AMP-based therapy for non-healing wound care: advanced trap&amp;release methods for non-invasive delivery materials</i>
10.20-10.40	<b>O17 Alessandro Pini</b> University of Siena Siena, Italy	<i>A peptide-based medical device for the selective removal of LPS, LTA and living bacteria from the serum of sepsis patients</i>
10.40-11.10	<i>Coffee Break &amp; Poster Session</i>	
<b>Session 4</b>		
11.10-11.30	<b>O18 Gil Rosenman</b> Tel Aviv University Tel Aviv, Israel	<i>Bioinspired Materials: Physical Properties Governed by Biological Refolding</i>
11.30-11.50	<b>O19 Maria Moccia</b> National Research Council Bari, Italy	<i>The Peptide Nucleic Acid leitmotif and its application in miRNAs targeting.</i>
11.50-12.10	<b>O20 Francesco Merlino</b> University of Naples Federico II Napoli, Italy	<i>Pursuit of "Qualified" Antimicrobial Peptides to Challenge the Antibiotic Resistance</i>

12.10-12.30	<b>O21 Luigi Aloj</b> University of Cambridge Cambridge, United Kingdom	<i>Radiolabelled peptides in cancer diagnosis and therapy</i>
12.30-13.50	<i>Lunch on site</i>	
<b>Session 5</b>		
13.50-14.30	<b>PL4 Meritxell Teixido</b> IRB Barcelona, Spain	<i>Blood-Brain Barrier Shuttle Peptides, From Discovery to Applications</i>
14.30-14.50	<b>O22 Antonella Accardo</b> University of Naples Federico II Naples, Italy	<i>Peptide based hydrogels and nanogels for biomedical applications</i>
14.50-15.10	<b>O23 Maria Gallo</b> Pompeu Fabra University Barcelona, Spain	<i>A cognitive protection peptide for cannabis-based pain treatment</i>
15.10-15.30	<b>O24 Sharon Gilead</b> Tel Aviv University Tel Aviv, Israel	<i>Self-Assembled Peptides for Electronic and Piezoelectric Applications</i>
<b>PEPTIDE SHOWCASE</b>		
<b>Oral Communications presented by Companies</b>		
15.30-15.45	<b>PS1 Antonio Ricci</b> Fresenius Kabi iPSUM Villadose, Italy	<i>Therapeutic peptide industrial chemistry and analytical consideration</i>
15.45-16.00	<b>PS2 Elisabetta Bianchi</b> IRBM Pomezia, Italy	<i>Development of Analogues of the Venom Toxin ProTx-II as Selective Blockers of the Ion Channel Nav1.7 for the Treatment of Pain</i>
16.00-16.15	<b>PS3 Raimund Maier</b> Iris Biotech GmbH Marktredwitz, Germany	<i>Peptide Optimization by Novel "Fatty" Amino Acids</i>
16.15-16.30	<b>PS4 Giorgio Marini</b> CEM Cologno al Serio (BG), Italy	<i>Optimized Synthesis and Purification Strategies for SPPS</i>
16.30-16.40	<b>PS5 Malachi Gillick-Healy</b> KelAda Pharmachem Ltd. Dublin Ireland	<i>International industrial collaborative opportunities with KelAda Pharmachem Ltd., Ireland</i>
16.40-17.20	<i>Coffee Break &amp; Poster Session</i>	
<b>Session 6</b>		
17.20-18.00	<b>PL5 Helma Wennemers</b> ETH Zurich, Zurich, Switzerland	<i>Synthetic Collagen – From Structure to Function</i>
18.00-18.20	<b>O25 Lihl Adler-Abramovich</b> Tel Aviv University Tel Aviv, Israel	<i>Designing New Bioinspired 3D Hydrogels for Tissue Regeneration</i>
18.20-18.40	<b>O26 Evelien Wynendaele</b> Ghent University Ghent, Belgium	<i>Quorum sensing peptides as microbiota-derived mediators in different diseases</i>
18.40-19.00	<b>O27 Norman Metanis</b> The Hebrew University Jerusalem, Israel	<i>Chemoselective Modification of Cysteine and Selenocysteine in Peptides and Proteins</i>

<i>Free evening</i>		
<b>Saturday, June 18<sup>th</sup></b>		
<i>SPEAKER</i>	<i>TITLE</i>	
<b>Session 7</b>		
8.20-9.00	<b>PL6 Alessandro Moretto</b> University of Padua Padua, Italy	<i>From sleepy to lively foldamers: using light to turn-on catalytic activity and programmable protein aggregation</i>
9.00-9.40	<b>PL7 Roger Cone</b> University of Michigan Ann Arbor, USA	<i>Development and application of new MC3R specific melanocortin peptides</i>
9.40-10.00	<b>O28 Raquel Lopez-Rios de Castro</b> King's College London, United Kingdom	<i>Finding an amyloid precursor protein occlusion peptide to reduce the production of toxic A<math>\beta</math> species</i>
10.00-10.20	<b>O29 Artur Krezel</b> University of Wroclaw Wroclaw, Poland	<i>Metal-coupled folding as the driving force for zinc proteins function - insight into sequence-structure-stability relationships in zinc finger, hook and clasp domains</i>
10.20-10.40	<b>O30 Carla Isernia</b> University of Campania L. Vanvitelli Caserta, Italy	<i>Influence of xenobiotic metal ions on structure and folding of the prokaryotic zinc finger Ros87</i>
10.40-11.10	<i>Coffee Break &amp; Poster Session</i>	
<b>Session 8</b>		
11.10-11.50	<b>PL8 Christian Becker</b> University of Vienna Vienna, Austria	<i>New Tools for Protein Semi-Synthesis to study Posttranslational Modifications</i>
11.50-12.30	<b>PL9 Maurizio Pellecchia</b> University of California Riverside, USA	<i>Targeting protein-protein interactions by designing potent and effective peptide mimetics</i>
12.30-12.50	<b>O31 Aphrodite Kapurniotu</b> Technische Universität Munich Freising, Germany	<i>Designed peptides as potent inhibitors of amyloid self-assembly and cross-seeding of IAPP and A<math>\beta</math>42</i>
12.50-13.10	<b>O32 Nicolas Winssinger</b> University of Geneva Switzerland	<i>PNA to encode and fold peptide</i>
13.10-14.10	<i>Free Lunch</i>	
<b>Session 9</b>		
14.10-14.30	<b>O33 Luca Gentilucci</b> University of Bologna Bologna, Italy	<i>Hybrid <math>\alpha/\beta</math> Peptide Ligands Targeting <math>\alpha</math>4<math>\beta</math>1 Integrin: Therapeutic and Diagnostic Applications</i>
14.30-14.50	<b>O34 Pol Besenius</b> Johannes Gutenberg University Mainz Mainz, Germany	<i>Multicomponent Supramolecular Polymers as a Platform for the Design of Glycoconjugate Vaccines</i>

14.50-15.10	<b>O35 Alessandro Gori</b> SCITEC-CNR Milano, Italy	<i>Membrane-binding Peptides for Extracellular Vesicles On-chip Analysis</i>
<b>Session 10</b>		
15.10-15.50	<b>PL10 Christian Heinis</b> Ecole Polytechnique Federale de Lausanne Lausanne, Switzerland	<i>New methods and attempts to develop orally available cyclic peptides</i>
15.50-16.10	<b>O36 Marina Rubini</b> University College Dublin Dublin, Ireland	<i>Semisynthetic approaches for studying post-translational modifications</i>
16.10-16.30	<b>O37 Claudia Tomasini</b> Università di Bologna Bologna, Italy	<i>Physical gels formed by Dopa-containing ultra-short peptides</i>
16.30-16.50	<b>O38 Giancarlo Terraneo</b> Politecnico di Milano Milano, Italy	<i>Halogenation as versatile tool for tuning structures and properties of amyloid peptides</i>
16.50-17.10	<b>O39 Giulia Marafon</b> ETH Zurich Switzerland	<i>Design of enzyme-inspired multivalent catalysts through functional patterning of nanosystems</i>
17.10-17.30	<b>O40 Manuela Grimaldi</b> University of Salerno, Salerno, Italy	<i>Tissue engineering and differentiation on neuronal stem cell targets through membrane active peptide</i>
17.30-18.00	<i>Coffee Break &amp; Poster Session</i>	
18.00-18.20	<b>O41 Marta De Zotti</b> University of Padua Padua, Italy	<i>A linear antimicrobial peptide selectively detects sulfate anions</i>
18.20-18.40	<b>O42 Alice Romagnoli</b> Università Politecnica delle Marche Ancona, Italy	<i>Lost in translation: development of single and novel therapeutic peptidomimetic against multiple pathologies</i>
18.40-19.00	<b>O43 Elad Arad</b> Ben-Gurion University of the Negev Beersheba, Israel	<i>beta-amyloid fibrils catalyze neurotransmitter degradation</i>
19.00-19.10	<b>Concluding Remarks</b>	
21.00	<b>Gala Dinner</b>	