


# PEPTIDES IN THE NATIVITY


Scientific day of the Research Centre on Bioactive Peptides “Carlo Pedone” **CIRPeB**

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18<sup>th</sup> Naples Workshop on Bioactive Peptides

<u>Thursday 28<sup>th</sup> November</u>		
10.30-19.00	Registration	
 <b>SCIENTIFIC DAY OF THE RESEARCH CENTRE ON BIOACTIVE PEPTIDES “CARLO PEDONE”</b>		
10.55	Welcome address	
<b>Session 1</b>		
<i>Chair: C. Isernia – F. Merlino</i>		
11.00-11.12	<b>O1 Davide Esposito</b> IBB-CNR - Naples	<i>Insights into the interaction between the p60 subunit of chromatin assembly factor-1 and the histone chaperone anti silencing factor-1</i>
11.12-11.24	<b>O2 Angela Arciello</b> University “Federico II” - Naples	<i>Cryptic antimicrobial peptides hidden in human endopeptidases: the case of three novel peptides identified in metalloproteinase 19 by a computational-experimental platform</i>
11.24-11.36	<b>O3 Giulio Pota</b> University “Federico II” - Naples	<i>Bioactive light-responsive melanin-like nanostructures modulated by ascorbic acid reduction</i>
11.36-11.48	<b>O4 Roberta Della Marca</b> University “L. Vanvitelli” - Naples	<i>HR-derived antiviral peptides: a path to rapid response to emerging viral diseases</i>
11.48-12.00	<b>O5 Marina Sala</b> University of Salerno	<i>Moving towards a sustainable development of therapeutic peptides</i>
12.00-12.12	<b>O6 Jussara Amato</b> University “Federico II” - Naples	<i>Harnessing protein-derived peptides to target G-quadruplex DNA: Linking molecular recognition to anticancer activity</i>
12.12-12.24	<b>O7 Maria Carmina Scala</b> University of Salerno	<i>Rational design of the zonulin inhibitor AT1001 derivatives as potential anti SARS-CoV-2</i>
12.24-12.36	<b>O8 Rosanna Lucignano</b> University “Federico II” - Naples	<i>Development of new bionanomaterials based on bioactive peptides</i>
12.36-14.00	<b>Free Lunch</b>	

<b>Session 2</b>		
		<b>Chair: P. Grieco – C. Diaferia</b>
14.00-14.12	<b>O9 Ivana D'Angelo</b> University "L. Vanvitelli" - Caserta	<i>Boosting Antimicrobial Peptide Potential: Engineered Nanoparticles for Targeted P. aeruginosa Lung Infections</i>
14.12-14.24	<b>O10 Alessandra Monti</b> IBB-CNR - Naples	<i>Characterization of autofluorescent amyloid-like assemblies formed by PREP1-derived peptides: correlations between spectroscopic and structural properties.</i>
14.24-14.36	<b>O11 Annalisa Chianese</b> University "L. Vanvitelli" – Naples	<i>Virucidal activity of frog-derived peptides against arboviral diseases</i>
14.36-14.48	<b>O12 Rosaria Schettini</b> University of Salerno	<i>Design of chiral DOTA complexes for MRI</i>
14.48-15.00	<b>O13 Rita Maria Di Lorenzo</b> University "Federico II" – Naples	<i>Biomimetic Peptides in Cosmetics Interfering with Neurotransmission</i>
15.00-15.12	<b>O14 Mariantonietta Pizzella</b> University "Federico II" – Naples	<i>Self-assembled biomaterials based on Transthyretin-derived peptide sequences</i>
15.12-15.24	<b>O15 Domenica Musumeci</b> University "Federico II" – Naples	<i>Exploring the nucleic acid-targeting and self-assembling properties of nucleoamino acids and nucleopeptides</i>
15.24-15.36	<b>O16 Vincenzo Maria D'Amore</b> University "Federico II" – Naples	<i>iRGD Peptide-Tumor Binding Dynamics: Toward Improved Activity and Selectivity Profiles</i>
15.36-15.48	<b>O17 Gaetano Malgieri</b> University "L. Vanvitelli" - Caserta	<i>Circular oligomers formed by Ros/MucR family members act as mediators of DNA condensation in <math>\alpha</math>-proteobacteria</i>
15.48-16.00	<b>O18 Elisabetta Rosa</b> University "Federico II" – Naples	<i>Structural and mechanical insights of multi-LARKS assemblies: from biology to materials</i>

		<b>18<sup>TH</sup> NAPLES WORKSHOP ON BIOACTIVE PEPTIDES</b>
16.50-17.00	<b>Welcome address</b>	
<b>Session 1</b>		
		<b>Chair: L. Russo – F. Formaggio</b>
17.00-17.40	<b>Opening Lecture</b> <b>Horst Kessler</b> TUM Garching (Germany)	<i>Integrin-ligands for medical applications</i>
17.40-18.00	<b>O1 Mariano Venanzi</b> University of Rome Tor Vergata (Italy)	<i>Ultrasound-assisted formation of therapeutic peptide microcapsules</i>
18.00-18.20	<b>O2 Oliver Zerbe</b> University of Zurich (CH)	<i>Novel macrocyclic peptide antibiotics against Gram-negative bacteria based on the Thanatin scaffold</i>
18.20-18.40	<b>O3 Consiglia Tedesco</b> University of Salerno (Italy)	<i>From cyclic peptoids to beta turn in proteins</i>
19.00-20.30	<b>Welcome Party</b>	

## Friday 29<sup>th</sup> November

### Session 2

*Chair: P. Gomes – A. Moretto*

9.00-09.30	<b>PL1 Meritxell Teixido</b> <b>Gate2Brain – Barcellona (Spain)</b>	<i>Gate2Brain blood-brain barrier shuttle peptides, from discovery to applications and going beyond small molecules.</i>
9.30-9.50	<b>O4 Valentina Borghesani</b> <b>University of Parma (Italy)</b>	<i>Redesign of SpyTag/SpyCatcher complex into artificial Cu(II) metalloenzymes. The SpyTag, Our Playground!</i>
9.50-10.10	<b>O5 Kaliroi Peqini</b> <b>University of Milan (Italy)</b>	<i>Peptidomimetics Inhibiting Amyloid Aggregation: The Agel Case</i>
10.10-10.40	<b>Coffee Break</b>	

### Session 3

*Chair: A. Accardo – P. Grieco*

10.40-11.10	<b>PL2 Rosalba Mansi</b> <b>University Hospital Basel (CH)</b>	<i>Radiopharmaceuticals Targeting GPCRs: Exploring the Features of Antagonists</i>
11.10-11.30	<b>O6 Marco Antonio Pometti</b> <b>Cannizzaro Hospital Catania (Italy)</b>	<i>Synthesis of a Radio-immuno-theranostic Agent for Breast Cancer</i>
11.30-11.50	<b>O7 Alberto Signore</b> <b>Sapienza University – Rome (Italy)</b>	<i>Biochemical characterization of 68Ga-interleukin-2 for imaging activated T-lymphocytes</i>
11.50-12.20	<b>O8 Frank Caruso</b> <b>University of Melbourne - Australia</b>	<i>Nanoengineering Biomaterials: From Assembly to In Vivo Delivery and Function</i>
12.20-12.40	<b>O9 Valeria Bentivoglio</b> <b>Sapienza University – Rome (Italy)</b>	<i>99mTc-FGF2 for nuclear medicine imaging of tumor associated fibroblasts: pre-clinical studies</i>
12.40-13.00	<b>O10 Nicola Salvatore</b> <b>ICMATE-CNR – Padua (Italy)</b>	<i>LC-MS-Based Metabolomics Analysis of [99m/99gTc][Tc(N)PNP]-labeled RGDechi-Cys Peptide Derivatives</i>
13.00-13.20	<b>O11 Luigi Aloj</b> <b>Cambridge University (UK)</b>	<i>Radiolabelled peptides targeting Gastrin Releasing Peptide Receptors for cancer theranostics</i>
13.20-14.30	<b>Lunch on site</b>	

### Session 4 – Companies

*Chair: M. Teixido – M. Ruvo*

14.30-15.00	<b>PLC Elisabetta Bianchi</b> <b>IRBM – Pomezia (Italy)</b>	<i>Macrocycles as inhibitors of protein/protein interactions: the PCSK9/LDL receptor complex case study</i>
15.00-15.10	<b>OC1 Raimund Maier</b> <b>IRIS Biotech (Germany)</b>	<i>Novel Orthogonal Protecting Groups for Amino Acid Side Chains</i>
15.10-15.20	<b>OC2 Giorgio Marini</b> <b>CEM (Italy)</b>	<i>Innovations in Sustainable Peptide Production</i>
15.20-15.30	<b>OC3 Antonio Colantuono</b> <b>Arterra Biotech Naples (Italy)</b>	<i>Bioactive peptide hydrolysates in beauty industry: Sources, chemical characterization and biological properties</i>
15.30-15.40	<b>OC4 Lars Irving Michael Meuser</b> <b>Sibylla Biotech (Italy)</b>	<i>A Quantum Algorithm for de novo Drug Design</i>

15.40-15.50	<b>OC5 Carmine Talarico</b> <b>Dompé Farmaceutici S.p.a. (Italy)</b>	<i>Computer-based peptides library design and optimization to address new therapeutic needs</i>
15.50-16.40	<b>Coffee Break &amp; Poster Session</b>	
<b>Session 5</b>		
<b>Chair: M. De Zotti – D. Tesouro</b>		
16.40-17.10	<b>PL3 Paolo Rovero</b> <b>University of Florence (Italy)</b>	<i>AAT11RI: a retro-inverso collagen modulator peptide derived from Serpin A1 is a valuable cosmeceutical active ingredient</i>
17.10-17.30	<b>O12 Beatrix Miralles</b> <b>Institute of Food Science Research – Madrid (Spain)</b>	<i>Screening in vivo digestion resistant whey peptides capable to stimulate enteroendocrine sensing receptors</i>
17.30-17.50	<b>O13 Saan Voss</b> <b>University of Cambridge (UK)</b>	<i>Peptide-bismuth bicycles</i>
17.50-18.10	<b>O14 Mauro Adamo</b> <b>RCSI Dublin (Ireland)</b>	<i>Desulfurative Fluorination: an efficient methodology for late-stage introduction of 19F or 18F in amino-acids, peptides and biomolecules</i>
18.10-18.30	<b>O15 Sara Aquilia</b> <b>University of Florence (Italy)</b>	<i>Development of rapeseed meal-based biomaterials plasticized with his own protein-hydrolysates</i>
<b>Free Evening</b>		
<b>Saturday 30<sup>th</sup> November</b>		
<b>Session 6</b>		
<b>Chair: M. Saviano – N. Davey</b>		
9.00-9.30	<b>PL4 Marc Devocelle</b> <b>RCSI Dublin (Ireland)</b>	<i>Combining Medicinal Chemistry approaches to modify Antimicrobial Peptides</i>
9.30-9.50	<b>O16 Marta De Zotti</b> <b>University of Padua (Italy)</b>	<i>Aib-containing peptides as plant protection products</i>
9.50-10.10	<b>O17 Chiara Falciani</b> <b>University of Siena (Italy)</b>	<i>Antibacterial and anti-inflammatory activity of branched peptides derived from natural host-defence sequences</i>
10.10-10.30	<b>O18 Jaspreet Kaur Jandoo</b> <b>Silesian University of Technology Gliwice (Poland)</b>	<i>Comparison of antimicrobial assays to analyse bioactive low molecular peptide derived from <i>Lucilia sericata</i> maggot secretion</i>
10.30-10.50	<b>O19 Alessandro Pini</b> <b>University of Siena (Italy)</b>	<i>Design, synthesis and characterization of anti-TNF<math>\alpha</math> peptides for pharmaceutical purposes</i>
10.50-11.20	<b>Coffee Break</b>	
<b>Session 7</b>		
<b>Chair: L. Zaccaro – G. Morelli</b>		
11.20-11.50	<b>PL5 Norman Davey</b> <b>Institute of Cancer Research – London (UK)</b>	<i>Comprehensive characterization of peptide-binding pockets using high-throughput screening</i>

11.50-12.10	<b>O20 Bruno Casciaro</b> University of Rome "La Sapienza" (Italy)	<i>Effect of acidic pH and of a single amino acid substitution on the antimicrobial/antibiofilm activity of the peptide Esc(1-21)</i>
12.10-12.30	<b>O21 Andrea Caporale</b> IC-CNR – Trieste (Italy)	<i>SAR STUDY OF THE HUMAN HOST-DEFENCE PEPTIDE LL-37</i>
12.30-12.50	<b>O22 Irina Naletova</b> IC-CNR – Catania (Italy)	<i>NGF mimic cyclic peptide demonstrates copper ionophore capability and Ctr1/CCS-driven signaling</i>
12.50-13.10	<b>O23 Alessandro Moretto</b> University of Padua (Italy)	<i>Conformationally interconnected amides: a remote transfer of stereochemical information over 40 bonds</i>
13.10-14.30	<i>Lunch on site</i>	
<b>Session 8</b>		
<b>Chair: P. Rovero – O. Zerbe</b>		
14.30-15.00	<b>PL6 Paula M.T. Ferreira</b> Universidade do Minho Braga (Portugal)	<i>Self-Assembly of Small Peptides Featuring Dehydroamino Acids for Advanced Nanomaterials</i>
15.00-15.30	<b>PL7 Paula Gomes</b> University of Porto (Portugal)	<i>From Merrifield to Meldal – Nobel-prized chemistries behind the development of new candidates for topical use on chronic wounds</i>
15.30-15.50	<b>O24 Giuseppe Pappalardo</b> IC-CNR – Catania (Italy)	<i>Rationally designed peptide conjugates in Alzheimer Disease: implications for diagnosis and therapy.</i>
15.50-16.10	<b>O25 Adriana Di Stasi</b> University of Trieste (Italy)	<i>Proline-rich antimicrobial peptides as lead compound for the development of new anti-mycobacterial drugs.</i>
16.10-16.30	<b>O26 Daniela Trisciuzzi</b> University of Bari (Italy)	<i>Understanding peptide-protein binding based on GRID-MIFs and machine learning</i>
16.30-16.50	<b>O27 Aparna Palakkurussi Rathessan</b> Freie Universität Berlin (Germany)	<i>Structure-Activity Relationship Study of <math>\beta</math>-Hairpin Peptides</i>
16.50-17.30	<i>Coffee Break &amp; Poster Session</i>	
<b>Session 9</b>		
<b>Chair: P. Ferreira – M. Venanzi</b>		
17.30-17.50	<b>O28 Alberto Dal Corso</b> University of Milan (Italy)	<i>Salicylaldehyde-Tagged Peptides for the Reversible-Covalent Engagement of Protein Lysine Residues</i>
17.50-18.10	<b>O29 Luisa Calcinai</b> University of Parma (Italy)	<i>In silico mapping and proteomic analysis of digestion resistant allergenic peptides in Arginine Kinase from <i>Hermetia illucens</i></i>
18.10-18.30	<b>O30 Luigi de Pascale</b> University of Trieste (Italy)	<i>An in vivo approach to study the inhibitory effect of Antimicrobial Peptides on bacterial protein synthesis</i>
18.30-18.50	<b>O31 Ren Lai</b> Chinese Academy of Sciences Kunming (China)	<i>Peptidic products from Chinese traditional 'worm' medicines</i>
18.50-19.00	<i>Concluding Remarks</i>	
21.00	<i>Gala Diner</i>	