

Monday 6 JULY

13:00-16:00	Arrival & Registration	
16:00-17:00	<b>OPENING</b>	<b>Agnese Magnani:</b> Director of Department of Biotechnology, Chemistry and Pharmacy (University of Siena) & Member of Tuscany Technological District "Innovative Materials" Steering Committee <b>Claudia Perini:</b> Mycologist & Treasurer of the Accademia dei Fisiocritici
17:00-17:45	PL1 Paola Turano	Ferritin: The Golden Cage
17:45-18:30	PL2 Christelle Hureau	Copper and zinc in Alzheimer's disease: their role in the amyloid cascade and as therapeutic targets
18:30	Welcome Cocktail	Cloister of the Accademia dei Fisiocritici



Tuesday 7 JULY

<b>1<sup>st</sup> SESSION</b>	<b>9:00-11:00</b>	<b>Bioinspired Antimicrobial Strategies</b>
09:00-09:45	PL3 Magdalena Rowińska-Żyrek	Metal-triggered folding meets retro-inverso design: reprogramming peptide function from AMPs to GLP-1 analogues
09:45-10:15	IL01 Fabio Zobi	Rhenium Complexes as Antimicrobial Agents
10:15-10:30	OC01 Bela Gyurcsik	Metal ion selectivity of the AfArsR model peptide
10:30-10:45	OC02 Joanna Wątył	Beyond Proteolysis: Metal-Mediated Antimicrobial Activity of Salivary-Derived D-Amino Acid Peptidomimetics
10:45-11:00	OC03 Klaudia Szarszoń	Histatin 5 Peptidomimetics: Cu(II) and Zn(II) Coordination, Secondary Structure, and Antimicrobial Activity
11:00-11:30	Coffee Break	
<b>2<sup>nd</sup> SESSION</b>	<b>11:30-13:00</b>	<b>Metal-Based Therapeutics and Redox Chemistry</b>
11:30-12:00	IL02 Simone Dell'Acqua	Heme and metalloporphyrinoids as regulators of ROS in neurodegenerative diseases
12:00-12:30	IL03 Malgorzata Brindell	Polypyridyl Ru(II) complexes as metastasis inhibitors - in vitro functional assays and molecular mechanisms
12:30-12:45	OC04 Michele Benedetti	Green ligands for enhanced platinum drugs
12:45-13:00	OC05 Alberto Cecon	Reactive Adduct Intermediates and Solvent-Cage Effects in Azo-Initiated Oxidation of Cinnamic Acid Derivatives
13:00-14:30	Lunch	
<b>3<sup>rd</sup> SESSION</b>	<b>14:30-16:15</b>	<b>Nano-Bio Systems and Drug Delivery</b>
14:30-15:00	IL04 Anna Maria Piras	Tuning Chitosan and CyclodextrinBased Nanostructures to Enhance Drug Stability and Bioavailability
15:00-15:30	IL05 Łukasz John	From Cage Architecture to Biomaterials: The Role of Multifunctional Silsesquioxanes
15:30-15:45	OC06 Loredana Elena Nita	Multifunctional Polymer-Drug Nanoplatfom with Polydopamine Shell for Folate-Targeted Synergistic Therapy
15:45-16:00	OC07 Víctor Sebastián	Continuous Flow Manufacturing of Hybrid CuS-ICG Nanoparticles: From Multistage Synthesis to Enhanced Biocidal Performance
16:00-16:15	OC08 Marta Warszyńska	Nanovesicle-Driven Enhancement of Redaporfin-Based Photodynamic Therapy and Immune Activation
	<b>16:15-16:30</b>	<b>FLASH POSTER PPRESENTATION - 1st SESSION</b>
16:15-16:20	fPP1 Dominick Barczyk	Engineering Fluorinated Tetrapyrrolic Photosensitizers: How Structural Design Controls Triplet Lifetimes and Photodynamic Activity
16:20-16:25	fPP2 Agnese Bertinelli	SpyTag/SpyCatcher system: towards the development of a bio-inspired heme catalyst
16:25-16:30	fPP3 Jakub Gawłowski	Cu <sup>2+</sup> and Zn <sup>2+</sup> complexes of <i>retro-inverso</i> clavamin C as potent antimicrobial agents
16:30-17:00	Coffee Break	
	<b>17:00-17:30</b>	<b>FLASH POSTER PPRESENTATION - 2st SESSION</b>
17:00-17:05	fPP4 Anat Haviv-Chesner	Disrupting α-Synuclein Aggregation via azaGly-Engineered Cyclic D,L-α-Peptides: A Disease-Modifying Strategy for Parkinson's Disease
17:05-17:10	fPP5 Tobiasz Martyka	The interaction of NO-ferroheme and low-molecular-weight S-nitrosothiols with human serum albumin: Implications for nitric oxide signaling
17:10-17:15	fPP6 Chiara Pizzo	Structural study on a new class of HIV-1 protease inhibitors
17:15-17:20	fPP7 Gabriela Potoczniak	<sup>70</sup> Liraglutide: proteolytic stability and metal ion coordination
17:20-17:25	fPP8 Anna Poznańska	Integrating in silico and biophysical approaches to characterize protein-ligand binding
17:25-17:30	fPP9 Anna Słusarczyk	Flip the Peptide, Boost the Power: Metal-Driven Stability and Activity in Salivary AMPs Rich in Prolines
17:30-19:00	Poster Session	

Wednesday 8 JULY

4 <sup>th</sup> SESSION	9:00-11:00	Protein Dysfunction and Translational Approaches
09:00-09:45	PL4 Shai Rahimipour	Reprogramming Amyloid Assembly with Cyclic D,L- $\alpha$ -Peptides: From Molecular Design to Alzheimer's Diagnosis and Therapy
09:45-10:15	IL06 András Perczel	Evolution Did Not Eliminate Aggregation: Functional Amyloids Enable Hormone Storage and Signaling
10:15-10:30	OC09 Leila Motiei	Detecting and Modulating Proteins with Multifunctional Molecular Probes
10:30-10:45	OC10 Katuscia Pagano	Unraveling the Nucleation Landscape of Amyloidogenic Proteins: An NMR-Driven Mechanistic Study
10:45-11:00	OC11 Maria Chiara Mimmi	Advancing graft evaluation: integrating metabolomics into prognostic models for heart transplantation
11:00-11:30	Coffee Break	
5 <sup>th</sup> SESSION	11:30-13:00	Neurochemical Frontiers in Metal Biology
11:30-12:00	IL07 Yifat Miller	Insulin degrading enzyme, metals and neuropeptides in amyloid diseases: Insights into the role, mechanisms and potential therapeutics
12:00-12:30	IL08 Oscar Palacios	Menkes Disease: metallothioneins as biomarkers?
12:30-12:45	OC12 Mirco Meglioli	Effect of selected mutations on sulfide binding to neuroglobin
12:45-13:00	OC13 Chiara Bacchella	Interaction between copper and neuronal proteins: a DOMINO effect in neurodegeneration
13:00-14:30	Lunch	
6 <sup>th</sup> SESSION	14:30-16:30	Bioinspired Therapeutic Approaches
14:30-15:00	IL09 Andrea Ilari	Exploiting a druggable E2 ligase for PROTAC development in Leishmaniasis therapy
15:00-15:30	IL10 Laura Cendron	Targeting the bacterial SOS response: from structural and mechanistic investigations to inhibitor development
15:30-15:45	OC14 Kinga Garstka-Litwin	Decoding Zn(II) Capture by <i>Aspergillus fumigatus</i> : Coordination Chemistry Meets Antimicrobial Intervention
15:45-16:00	OC15 Martyna Zawada	Disarming bacterial virulence factors: rational design of peptide inhibitors for metalloproteinases
16:00-16:15	OC16 Aleksandra Hecel	Copper trafficking in bacteria – insights from metallophores to regulatory and chaperone system
16:15-16:30	OC17 Przemyslaw Gajda-Morszewski	The pH-dependent zinc sequestration by calprotectin as a driver of Nutritional Immunity in the vaginal environment
16:30-17:00	Coffee Break	
17:00-18:00	Guided Tour of Academia	<i>Accademia dei Fisiocritici</i>
20:00	Gala Dinner	<i>Enoteca Italiana Siena, Fortezza Medicea</i>

Thursday 9 JULY

7 <sup>th</sup> SESSION	9:00-11:00	Molecular Engineering for Biomedical Innovation
09:00-09:45	PL5 Laura Spagnolo	Gene editing across three domains of life
09:45-10:15	IL11 Silvano Geremia	Chirality-Driven Pathways Between Chemistry and Biology: From Biomimetics to Biosensing
10:15-10:30	OC18 Lucrezia Cosottini	Genetic surface modification of the human ferritin platform for biomedical applications
10:30-10:45	OC19 Lara Massai	HSA-Metallo drug Bioconjugates: How Protein Binding Modulates the Cytotoxicity of Pt(II) and Au(I) complexes
10:45-11:00	OC20 Orsolya Ember	Double Disguise: Camouflaging Photocages for Bioorthogonally Controlled Conditional Activation
11:00-11:30	Coffee Break	
8 <sup>th</sup> SESSION	11:30-13:15	Biomimetic Systems and Bioinspired Catalysis
11:30-12:00	IL12 Tamás A. Martinek	Light-Driven Dissipative Replication and Protein-Catalyzed Selection in Biomimetic Systems
12:00-12:30	IL13 Matteo Tegoni	Spy protein: a new technology for artificial metalloenzymes
12:30-12:45	OC21 Dominik Marcin Płaskonka	Indole-Based Porphyrin-COX-2 Inhibitor Conjugates as Targeted Photosensitizers for Photodynamic Therapy
12:45-13:00	OC22 Gianluca Catucci	Microcalorimetry for the design and engineering of biocatalysts
13:00-13:15	OC23 Judit Fodor	Hypoxia Active Ir(III) and Ru(II) Photosensitizers for PDT
13:15-13:30	CLOSING & DEPARTURE	

