


Monday 6 JULY

13:00-16:00	Arrival & Registration		
16:00-17:00	OPENING	Agnese Magnani: Director of Department of Biotechnology, Chemistry and Pharmacy (University of Siena) & Member of Tuscany Technological District "Innovative Materials" Steering Committee Claudia Perini: Mycologist & Treasurer of the Accademia dei Fisiocritici	Chair: Daniela Valentini
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

1st SESSION	9:00-11:00	Bioinspired Antimicrobial Strategies	Chair: Matteo Tegoni
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 Wąty	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		
2nd SESSION	11:30-13:00	Metal-Based Therapeutics and Redox Chemistry	Chair: Paola Turano
11:30-12:00	IL02 Simone Dell'Acqua	Heme and metalloporphyrinoids as regulators of ROS in neurodegenerative diseases	
12:00-12:30	IL03 Małgorzata 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		
3rd SESSION	14:30-16:15	Nano-Bio Systems and Drug Delivery	Chair: Agnese Magnani
14:30-15:00	IL04 Anna Maria Piras	Tuning Chitosan and Cyclodextrin-Based Nanostructures to Enhance Drug Stability and Bioavailability	
15:00-15:30	IL05 Lukasz John	From Cage Architecture to Biomaterials: The Role of Multifunctional Silsesquioxanes	
15:30-15:45	OC06 Loredana Elena Nita	Multifunctional Polymer-Drug Nanoplatfrom 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	
	16:15-16:30	FLASH POSTER PPRESENTATION - 1st SESSION	Chair: Andrea Bernini
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 ²⁺ and Zn ²⁺ complexes of <i>retro-inverso</i> clavanin C as potent antimicrobial agents	
16:30-17:00	Coffee Break		
	17:00-17:30	FLASH POSTER PPRESENTATION - 2st SESSION	Chairs: Andrea Bernini & Stefania Lamponi
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	⁷⁰ 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 Slusarczyk	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 th SESSION	9:00-11:00	Protein Dysfunction and Translational Approaches	Chair: Christelle Hureau
09:00-09:45	PL4 Shai Rahimipour	Reprogramming Amyloid Assembly with Cyclic D,L- α -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 th SESSION	11:30-13:00	Neurochemical Frontiers in Metal Biology	Chair: Magdalena Rowińska-Żyrek
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 th SESSION	14:30-16:30	Bioinspired Therapeutic Approaches	Chair: Laura Spagnolo
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 Accademia	<i>Accademia dei Fisiocritici</i>	
20:00	Gala Dinner	<i>Enoteca Italiana Siena, Fortezza Medicea</i>	

Thursday 9 JULY

7 th SESSION	9:00-11:00	Molecular Engineering for Biomedical Innovation	Chair: Cecilia Pozzi
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 th SESSION	11:30-13:15	Biomimetic Systems and Bioinspired Catalysis	Chair: Simone dell'Acqua
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 Ptaskonka	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		

