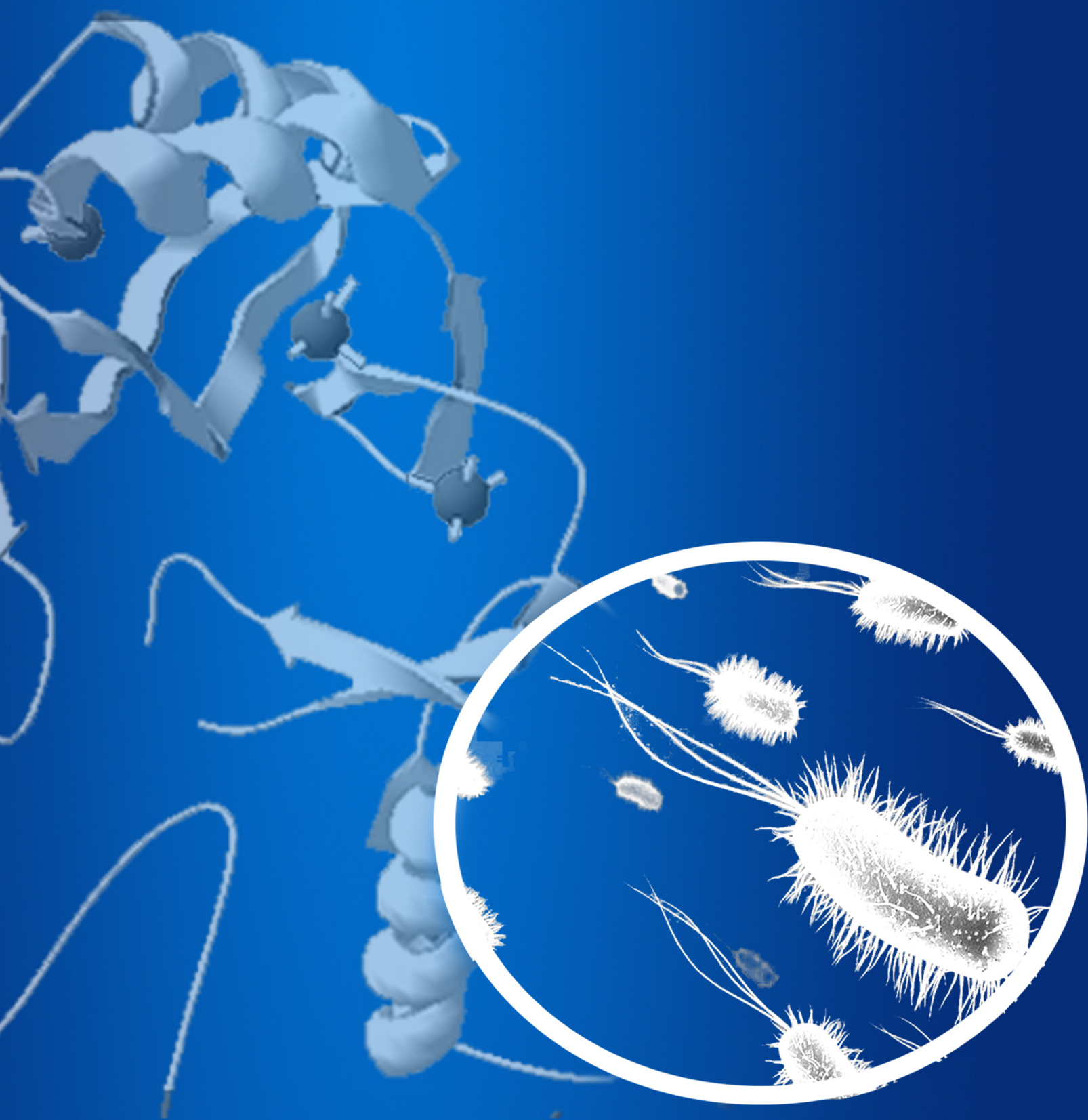


BioMetals 2020





12th International BioMetals Web-Symposium







DETAILED PROGRAM





6th - 10th July 2020



CEST	Monday, July 6th	
3:00 pm - 3:10 pm	Welcome and Introduction - Chairman and IBS <div>📍 Main Room</div>	
3:10 pm - 4:00 pm	Plenary Speech by Elizabeth Nolan <i>Metal Sequestration by Calprotectin and Consequences on Microbial Physiology</i> <div>👤 Session Chair: Hans Vogel</div> <div>📍 Main Room</div>	
	Session Topic: BM Session Chair: David Giedroc Main Room	
4:02 pm - 4:32 pm	Invited Speaker by Nigel J. Robinson <i>How cells help proteins to acquire the correct metals: Free energies of metalation</i>	
4:34 pm - 4:50 pm	Oral Speech by Anna Kocyla <i>Specificity factors that govern zinc-dependent assembly of CD4 coreceptor and Lck tyrosine kinase</i>	
4:50 pm - 5:20 pm	Flash Session 1: Metals and host-pathogen interactions <div>👤 Session Chair: Simon Andrews</div> <div>📍 Main Room</div>	Flash Session 2: Metalloproteins and biogenesis <div>👤 Session Chair: Stefano Ciurli</div> <div>📍 Second Room</div>
4:50 pm - 4:54 pm	Christine Baysse <i>The events that may contribute to subgingival dysbiosis: a focus on the interplay between iron, sulfide and oxygen</i>	Enrico Falcone <i>A luminescent peptide probe for extracellular Cu(II) detection</i>
4:54 pm - 4:58 pm	Debra Brunson <i>Identification and characterization of iron transporters in Enterococcus faecalis</i>	Diniz Diogo <i>Oxidative Stress Response Enzymes: Unravelling Catalytic Determinants Of Superoxide Reductases Through Natural And Site Directed Mutants</i>
4:58 pm- 5:02 pm	Kanchana Chathoth <i>Effect of iron on the development of oral biofilm</i>	Ievgen Mazurenko <i>Copper (I) oxidation by a CueO-like oxidase from T. thermophilus studied by direct electrochemistry</i>
5:02 pm - 5:06 pm	Amro Duhduh <i>The influence of iron regime on the human gut microflora – an in vitro batch culture approac</i>	Nihar Ranjan Prusty <i>Biogenesis of Iron-Sulphur cluster binding proteins in human cytosol: An insight into the molecular mechanism of cluster delivery from GLRX3 to NUBP1</i>
5:06 pm - 5:10 pm	Louis Julien <i>The role of the three lipocalins of egg-white in inhibition of Salmonella Enteritidis under iron restriction</i>	Bruno Salgueiro <i>Biochemical and structural characterization of a new Flavorubredoxin from Photobacterium swingsii</i>
5:10 pm - 5:20 pm	Q&A session	Q&A session
5:20 pm - 5:40 pm	<div><div>🗨️?</div><div>Break: Discussion Rooms</div><div>🗨️?</div></div> <div>Networking & Break Area</div>	
	Session Topic: MHP Session Chair: John Helmann Main Room	
5:40 pm - 6:10 pm	Invited Speaker by Maria Llamas <i>Sensing the environment and the host: Iron transport and signalling in Pseudomonas</i>	
6:12 pm - 6:28 pm	Oral Speech by Agnès Rodrigue <i>Necrotrophic phytopathogens are protected from reactive oxygen species by a secreted metal-binding protein</i>	
6:29 pm - 6:45 pm	Oral Speech by Andrea Monteagudo-Mera <i>Effect of Iron on the Composition and Activity of the Gut Microbiota using in vitro Models</i>	
6:46 pm - 7:02 pm	Oral Speech by Jordi Zamarreño Beas <i>Haem biosynthesis in Campylobacter jejuni</i>	
7:03 pm - 7:33 pm	Invited Speaker by Olivier Neyrolles <i>Metallobiology at the host-pathogen interface: the case of tuberculosis</i>	
7:35 pm - 7:45 pm	<div><div>🗨️?</div><div>Break: Discussion Rooms</div><div>🗨️?</div></div> <div>📍 Networking & Break Area</div>	

CEST	Tuesday, July 7th	
	Session Topic: MTM Session Chair: Nigel Robinson Main Room	
3:00 pm - 3:30 pm	Invited Speaker by Aixin Yan <i>Zinc excess increases cellular demand for iron and decreases tolerance to copper in Escherichia coli</i>	
3:32 pm - 4:02 pm	Invited Speaker by Dietrich Nies <i>The three pillars of bacterial zinc homeostasis</i>	
4:04 pm - 4:20 pm	Oral Speech by Oded Lewinson <i>The Bacillus anthracis virulence-determinant ABC transporter MntBC-A: transport specificity and trans-membrane metal recognition</i>	
4:21 pm - 4:37 pm	Oral Speech: Shelley Payne <i>Characterization of the Vibrio cholerae Feo Iron Transport System</i>	
4:40 pm - 5:10 pm	Flash Session 1: Metal trafficking in micro-organisms 🗨 Session Chair: Dietrich Nies 📍 Main Room	Flash Session 2: Metals in health and diseases 🗨 Session Chair: Isabelle Michaud-Soret 📍 Second Room
4:40 pm - 4:44 pm	Tomas Richardson-Sanchez <i>Investigating components of a Campylobacter jejuni gene cluster upregulated for iron scavenging during human infection</i>	Amr Abdeen <i>Empirical evidence supports an aetiological role for changes in biometal pathways in Parkinsons disease</i>
4:44 pm - 4:48 pm	SALEM AL-AIDY <i>The importance of conserved residues and the C-terminal sub-domain in FeoB-mediated iron uptake</i>	Radosław Kotuniak <i>Long-lived kinetic intermediates explain Cu(II) exchange processes in ATCUN peptides</i>
4:48 pm- 4:52 pm	Niklas Hirth <i>The Cup determinant is crucial for the resistance to copper in Cupriavidus metallidurans</i>	Laura Daniela Morales <i>B. cenocepacia increased antimicrobial resistance in the Cystic Fibrosis lung is associated with low pH and elevated levels of zinc and iron</i>
4:52 pm - 4:56 pm	Marco Videira <i>Siroheme biosynthesis in Staphylococcus aureus: insights of the pathway evolution in bacteria</i>	Gabrielle Schanne <i>Design and study of anti-oxidant inorganic complexes mimicking the superoxide dismutase (SOD)</i>
4:56 pm - 5:00 pm	Q&A session	Koudedja Couliably <i>Discovery through combinatorial chemistry of a peptidyl metal complex mimicking the antioxidant enzyme Catalase: characterization and in vitro/in vivo activity</i>
5:00 pm - 5:10 pm	Q&A session	Q&A session
5:10 pm - 5:30 pm	<div>  Break: Discussion Rooms 📍 Networking & Break Area  </div>	
5:30 pm - 6:00 pm	Invited Speaker by Katharina Fromm <i>How bacteria cope with silver ions</i> 🗨 Session Chair: Dietrich Nies 📍 Main Room	
	Session Topic: SM Session Chair: Debbie Crans Main Room	
6:02 pm - 6:32 pm	Invited Speaker by Pascal Arnoux <i>The ancient roots of nicotianamine:diversity, role, regulation and evolution of nicotanamine-like metallophores</i>	
6:34 pm - 6:50 pm	Oral Speech by Clémentine Laffont <i>Simple rules govern the diversity of bacterial nicotianamine-like metallophores</i>	
6:51 pm - 7:07 pm	Oral Speech by Quentin Perraud <i>Phenotypic adaptation of Pseudomonas aeruginosa in the presence of exosiderophores</i>	
7:08 pm - 7:24 pm	Oral Speech by Katherine A. Edmonds & Yifan Zhang <i>Iron acquisition by Streptococcus pneumoniae: PiuA specifically recognizes tetradentate catechol FeIII complexes</i>	
7:25 pm - 7:45 pm	<div>  Break: Discussion Rooms 📍 Networking & Break Area  </div>	

CEST	Wednesday, July 8th	
3:00 pm - 3:30 pm	Flash Session 1: Metals and environment 👤 Session Chair: Katharina Frömm 📍 Main Room	Flash Session 2: Siderophores, metallophores and chelators 👤 Session Chair: Pascal Arnoux 📍 Second Room
3:00 pm - 3:04 pm	Célia Romão <i>Deinococcus radiodurans</i> protection mechanisms against oxidative stress triggers the delocalization of intracellular metals	Michael Gotsbacher <i>Azido-Desferrioxamine Siderophores as Functional Click- Chemistry Probes Generated in Culture upon Adding a Diazo-Transfer Reagent</i>
3:04 pm - 3:08 pm	Abbas Mohamad Ali <i>Discovery and characterization of UipA, a uranium-binding protein involved in bacterial uranium tolerances</i>	Kate Nolan <i>Elucidating the mechanism for the biosynthesis of N-acetyl desferrioxamine siderophores</i>
3:08 pm- 3:12 pm	Umberto CONTALDO <i>In vitro biological water-gas shift reaction: characterization and grafting of recombinant Rhodospirillum rubrum CO-dehydrogenase</i>	Athavan Sresutharsan <i>A Novel Total Synthetic Approach to Desferrioxamine B Analogues</i>
3:12 pm - 3:16 pm	Sara Silva <i>Molecular mechanisms of Resistance to Radiation</i>	Andrzej Mular <i>Iron (III) And Gallium (III) Complexes Of Ferrioxamine E Biomimetic Analogs - Coordination Specificity And Possible Applications</i>
3:16 pm - 3:20 pm	Ruchi Chaturvedi <i>Dissecting the mechanism of cadmium toxicity in Deinococcus radiodurans R1</i>	Q&A Session
3:20 pm - 3:30 pm	Q&A Session	Q&A Session
	Session Topic: ME Session Chair: Richard Ortega Main Room	
3:32 pm - 4:02 pm	Invited Speaker by Jacques Bourguignon <i>The fate of uranium in plants – Physiological and cellular effects</i>	
4:04 pm - 4:20 pm	Oral Speech by Warren John <i>Elucidating the mechanism of uranium uptake and processing in tobacco BY-2 cells</i>	
4:21 pm - 4:37 pm	Oral Speech by Anissa Dieudonné <i>A highly sensitive magnetic whole-cell biosensor for arsenic detection</i>	
4:38 pm - 4:54 pm	Oral Speech by Maria Rosa BECCIA <i>In vivo speciation and uptake mechanisms of Uranium in Paracentrotus lividus sea urchin and Laminaria digitata seaweed</i>	
4:55 pm - 5:05 pm		Group Picture 📍 Main Room 
5:05 pm - 5:20 pm		Break: Discussion Rooms 📍 Networking & Break Area 
	Session Topic: MHR Session Chair: Claudia Blindauer Main Room	
5:20 pm - 5:50 pm	Invited Speaker by John D. Helmann <i>Manganese homeostasis in Bacillus subtilis</i>	
5:52 pm - 6:22 pm	Invited Speaker by María F. Fillat <i>Metalloregulation of cyanobacterial physiology operated by FUR (ferric uptake regulator) proteins</i>	
6:24 pm - 6:40 pm	Oral Speech: Nicolaas Arjan DE GROOT <i>Characterization of the stress-induced molecular signal that activates IrrE, a metalloprotease essential for extreme radiation resistance in Deinococcus bacteria</i>	
6:41 pm - 6:57 pm	Oral Speech:Martin Herzberg <i>Zinc and iron homeostasis adjust a core metalloproteome and is reflected by the cellular metal composition, the metallome.</i>	
6:58 pm - 7:28 pm	Invited Speaker: Claudia Blindauer <i>A single zinc sensor mediates the response of an oligotrophic marine cyanobacterium to zinc excess and starvation</i>	
7:30 pm - 7:55 pm		Break: Discussion Rooms 📍 Networking & Break Area 

CEST	Thursday, July 9th	
3:00 pm - 3:30 pm	Flash Session 1: Metal homeostasis and regulation 🗿 Session Chair: John Helmann 📍 Main Room	Flash Session 2: Metals and host-pathogen interactions 🗿 Session Chair: Alain Stintzi 📍 Second Room
3:00 pm - 3:04 pm	Marianne Ilbert <i>Copper stress induces protein aggregation and triggers Hsp33 holdase function through a non-redox mechanism</i>	Saleh Alquethamy <i>Overcoming metal intoxication – Elucidating the zinc resistance pathways of Acinetobacter baumannii</i>
3:04 pm - 3:08 pm	Cristina Sarasa <i>Structural properties of the transcriptional regulator FurC (PerR) from Anabaena sp. PCC7120 and identification of a putative FurC-box</i>	Katherine Ganio <i>Biochemical and structural characterisation of the Haemophilus influenzae PsaA ortholog, HIPsaA</i>
3:08 pm- 3:12 pm	André Gouveia <i>Structural characterization of Deinococcus radiodurans Dps2 with manganese: Expression, purification and crystallization</i>	Tomer Rosen <i>Metal Sequestration and Antimicrobial Activity of Human Calprotectin are pH-Dependent</i>
3:12 pm - 3:16 pm	Jorge Guío <i>Interaction of Ferric Uptake Regulator FurA from Anabaena sp. PCC7120 with 2-oxoglutarate: a possible link between iron homeostasis and nitrogen metabolism</i>	Marina Zupan <i>The molecular basis for zinc uptake via Streptococcus pneumoniae AdcAll</i>
3:16 pm - 3:20 pm	Romaric Magerand <i>Characterization of the stress-induced molecular signal that activates IrrE, a metalloprotease essential for extreme radiation resistance in Deinococcus bacteria.</i>	Filipe Folgosa <i>he role of Clostridium difficile flavodiiron proteins in its ability to survive within the human host</i>
3:20 pm - 3:30 pm	Q&A Session	Q&A Session
3:30 pm - 3:46 pm	Oral Speech by Koichiro Ishimori <i>Structural and Functional Characterization of Heme-Regulated Proteins in Iron Metabolism</i> 🗿 Session Chair: John Helmann 📍 Main Room	
	Session Topic: MHD Session Chair: Liz Nolan Main Room	
3:47 pm - 4:17 pm	Invited Speaker by Stephanie Blockhuys <i>New role of copper protein in cancer</i>	
4:19 pm - 4:49 pm	Invited Speaker by Liliana Quintanar <i>Metal-induced aggregation of gamma-crystallins: Insights into the bioinorganic chemistry of cataract disease</i>	
4:51 pm - 5:10 pm	Oral Speech by Alan J. Stewart <i>Metal ion dyshomeostasis and coagulatory defects in type-1 and type-2 diabetes</i>	
5:10 pm - 5:30 pm	<div>  Break: Discussion Rooms 📍 Networking & Break Area  </div>	
	Session Topic: MHD Session Chair: Liz Nolan Main Room	
5:30 pm - 6:00 pm	Invited Speaker by Svetlana Lutsenko <i>Intestinal copper regulates fat absorption</i>	
	Session Topic: MD Session Chair: Katharina Frömm Main Room	
6:02 pm - 6:18 pm	Oral Speech by Sandrine Ollagnier <i>New inhibitors against the [4Fe-4S] quinolinate synthase</i>	
6:19 pm - 6:35 pm	Oral Speech by Lukas Roth <i>Modifiable metal affinity chromatography as a metalloenzyme surrogate</i>	
6:36 pm - 6:52 pm	Oral Speech by Debbie Crans <i>Vanadium compounds activate cell signaling: the importance of speciation</i>	
6:53 pm - 7:23 pm	Invited Speaker by Clotilde Policar <i>Imaging metal complexes in cells</i>	
7:25 pm - 7:45 pm	<div>  Break: Discussion Rooms 📍 Networking & Break Area  </div>	

CEST	Friday, July 10th	
	Session Topic: MPB Session Chair: Aixin Yan Main Room	
3:00 pm - 3:30 pm	Invited Speaker by Stefano Ciurli Nickel trafficking in the urease system	
3:32 pm - 4:02 pm	Invited Speaker: Robert P. Hausinger Lactate Racemase and its Novel Nickel-Pincer Nucleotide Cofactor	
4:04 pm - 4:20 pm	Oral Speech by Kam Bo Wong A structural view of the nickel delivery pathway in urease maturation	
4:21 pm - 4:37 pm	Oral Speech by Liliana Silva Escherichia coli Repair of Iron Centres YtfE Protein Interacts with the DNA-Binding Protein from Starved cells Dps Protein	
4:40 pm - 5:20 pm	Flash Session 1: Metalloproteins and biogenesis 👤 Session Chair: Robert Hausinger 📍 Main Room	Flash Session 2: Metals and drugs 👤 Session Chair: Lilliana Quintanar 📍 Second Room
4:40 pm - 4:44 pm	Susana Fernandes The role of a quasi-conserved domain in flavodiiron NO reductases	Maria Azmanova Preclinical Anticancer Evaluation of an Electron-Deficient Organoruthenium(II) Complex
4:44 pm - 4:48 pm	Maria C. Martins The multidomain flavodiiron protein from Syntrophomonas wolfei	MONICA VAQUERO Appended aromatic moieties determine the Cytotoxicity of Neutral Cyclometalated Platinum(II) complexes derived from 2-(2-Pyridyl)benzimidazole
4:48 pm- 4:52 pm	Afridi Zamader Synthesis of biohybrid electrode materials for hydrogen evolution	Natalia Fernández Anticancer Activity of Neutral Cyclometalated Platinum(II) complexes bearing imidazole derivatives
4:52 pm - 4:56 pm	Silviya R Stateva Putative phosphorylation of Escherichia coli anaerobic nitric oxide reductase flavorubredoxin	Natalia Busto Photoactivation of Dual Antibacterial and Anticancer Activities of New Luminescent 2-Benzoazole-Phenolato Cycloplatinated(II) Complexes
4:56 pm - 5:00 pm	Jéssica Soares Insights into determinants of the activity of the flavodiiron NO reductase from E. coli	Jesica Paola Rada Reversible BSA aggregation by Cu2-complexes with metalloproteins active sites as potential antitumoral drug delivery process: a scattering study
5:00 pm - 5:10 pm	Q&A Session	Q&A Session
5:10 pm - 5:30 pm	<div>🗨️?</div> <div>Break: Discussion Rooms</div> <div>📍 Networking & Break Area</div> <div>🗨️?</div>	
	Session Topic: VQ Session Chair: Clotilde Policar Main Room	
5:30 pm - 6:00 pm	Invited Speaker by Michael Sperling Visualization and quantification of metals	
6:02 pm - 6:18 pm	Oral Speech by Alma Isabel Santos-Díaz Maternal-developmental undernourishment alters copper homeostasis in the rat kidney and liver	
6:19 pm - 6:49 pm	Invited Speaker by Richard Ortega Metals and morphological synaptic plasticity: insights from correlative super resolution and synchrotron imaging	
6:50pm - 7:05 pm	<div>🗨️?</div> <div>Break: Discussion Rooms</div> <div>🗨️?</div>	
7:05 pm - 7:20 pm	Closing and awards - Chairman and IBS	
	📍 Main room	

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