

PL

PLENARY LECTURES

Schedule of these three days of conference

Schedule	About the speakers	
Tuesday July 5 Amphi Donzelot 2:15 PM – 2:55 PM	40'	Chairs: Peter FALLER, Anna PEACOCK Altering Canonical Homotrimeric Coiled Coils to Modify Metal Structure and Catalytic Activities Vincent PECORARO Department of Chemistry, University of Michigan, Ann Arbor, MI USA
Wednesday July 6 Amphi Donzelot 9:00 AM – 9:40 AM	40'	Chairs: Laetitia CANABADY-ROCHELLE, Charlotte JACOBSEN Studies at the silica peptide interface Carole PERRY <i>Interdisciplinary Biomedical Research Centre, Nottingham Trent University, Nottingham, United Kingdom</i>
Thursday July 7 Amphi Donzelot 9:00 AM – 9:40 AM	40'	Chairs: Peter FALLER, Michal SHOSHAN Uranyl-binding peptides to shed light on uranium toxicity at the molecular level Pascale DELANGLE <i>IRIG, SyMMES, Université Grenoble Alpes, CEA, CNRS, Grenoble INP, Grenoble, France</i>

T1

KEYNOTE
INVITED LECTURE
ORAL COMMUNICATIONTOPIC 1: Chemical design and Proteolysis
production of peptides

Amphi A

T1. part 1		Thursday July 7 (2:00PM – 3:20PM) Chairs: Pascale DELANGLE, Laurent RAIBAUT
Keynote 2:00 PM	25'	Illuminating peptides with lanthanides: design of selective luminescent sensors <u>Olivier SENEQUE</u> , Manon ISAAC, Laurent Raibaut, Céline CEPEDA, Guillaume FREMY, Kyangwi Patrick MALIKIDOGO, Ji-Hyung CHOI, and Thibault CHARNAY <i>Laboratoire de Chimie et Biologie des Métaux, Univ. Grenoble Alpes, Grenoble, France</i>
Invited Lecture 2:25 PM	20'	Coiled coils - a class of ligands worthy of wider use across inorganic chemistry <u>Anna PEACOCK</u> <i>School of Chemistry, University of Birmingham, Edgbaston, UK</i>
Invited Lecture 2:45 PM	20'	A further twist on functional heme-binding coiled coils <u>Anabella IVANCICH</u> ¹ , Karl Koebke ² , Toni Kühl ¹ , Winston Pitts ² , Joseph Phillips ³ , Anna Peacock ³ and Vincent PECORARO ² <i>1. Laboratoire de Bioénergétique et Ingénierie des Protéines (UMR7281), CNRS & Aix-Marseille Univ., Marseille, France</i> <i>2. Department of Chemistry, University of Michigan, Ann Arbor, USA</i> <i>3. School of Chemistry, University of Birmingham, Birmingham, UK</i>
Oral Communication 3:05PM	15'	Selective Zn²⁺ chelation from zinc finger protein by rationally designed peptoid <u>Pritam GHOSH</u> ^{1,2} , Galia MAAAYAN ² <i>1. Department of Chemistry, Humboldt University, Adlershof, Germany</i> <i>2. Schulich Faculty of Chemistry, Technion-Israel Institute of Technology, Technion City, Haifa, Israel</i>

		T1. part 2	Thursday July 7 (4:00 PM – 4:50 PM) Chairs: Patrick GAMEZ, Loic STEPHAN
Amphi A	Invited Lecture 4:00 PM	20'	<p>Molecular interaction of zinc-binding food compounds with ADAM17/TACE and their functions Chibuike UDENIGWE <i>University Research Chair in Food Properties and Nutrient Bioavailability, Ottawa, Canada,</i></p>
	Oral Communication 4:20 PM	15'	<p>Influence of the amino acid sequence on the redox activity of Cu(II)-Aβ complexes and their receptor properties towards phosphates <u>Aleksandra TOBOLSKA</u>^{1,2}, Nina WEZYNFELD¹, Wojciech BAL³, and Wojciech WRÓBLEWSKI¹ <i>1. Faculty of Chemistry, Warsaw University of Technology, Warsaw, Poland</i> <i>2. Faculty of Chemistry, University of Warsaw, Warsaw, Poland</i> <i>3. Institute of Biochemistry and Biophysics, Polish Academy of Sciences, Warsaw, Poland</i></p>
	Oral Communication 4:35 PM	15'	<p>Metal-Chelating Peptides obtained from Enzymatic Hydrolysis of Protein Extracted from Fish Tilapia Scales (Oreochromis spp.) <u>Jairo CAMAÑO</u>^{1,2}, Rachel IRANKUNDA¹, Phillippe ARNOUX¹, Céline CAKIR-KIEFER³, Arnaud RISLER⁴, Loic STEFAN⁵, José ZAPATA² and Laetitia CANABADY-ROCHELLE¹ <i>1. Université de Lorraine, CNRS, LRGP, F-54000 Nancy, France</i> <i>2. Universidad de Antioquia, CIFAL, NUTEC, 050010 Medellín, Colombia</i> <i>3. Université de Lorraine, INRAE, URAFPA, F-54000 Nancy, France</i> <i>4. Université de Lorraine, CNRS, L2CM, F-54000 Nancy, France</i> <i>5. Université de Lorraine, CNRS, LCPM, F-54000 Nancy, France</i></p>
		T1. part 3	Friday July 8 (9:00 AM – 9:20 AM) Chairs: Elena GIMENEZ-ARNAU, Liming YING
Amphi DONZELOT	Invited Lecture 9:00 AM	20'	<p>Oligopeptides as Cu²⁺/Cu⁺ redox silencers Guillem VÁZQUEZ¹, Ernesto NICOLÁS¹, Ana Belén CABALLERO^{1,2} and <u>Patrick GAMEZ</u>^{1,2,3} <i>1. nanoBIC, Departament de Química Inorgànica i Orgànica, Universitat de Barcelona, Barcelona, Spain</i> <i>2. Institute of Nanoscience and Nanotechnology (IN2UB), Universitat de Barcelona, Barcelona, Spain</i> <i>3. Catalan Institution for Research and Advanced Studies (ICREA), Barcelona, Spain</i></p>

T2

KEYNOTE
INVITED LECTURE
ORAL COMMUNICATION

TOPIC 2: Screening/Separation of MBP

Auditorium A

T2. part 1		Thursday July 7 (9:50 AM – 10:35 AM) Chairs: Franziska LEDERER, Laurence MUHR
Auditorium A	Keynote 9:50 AM	25' Challenges and opportunities in downstream process for large scale peptide manufacturing <u>Renan RAVETTI DURAN</u> and Olivier LUDEMANN-HOMBOURGER <i>Global Innovation and Technology, Polypeptide Laboratories SAS, Strasbourg, France</i>
	Invited Lecture 10:15 AM	20' helix®: the modular biosensor for analyzing metal-binding peptides <u>Amandine GONTIER</u> <i>EU Sales team, Dynamic Biosensors, Martinsried/Planegg, Germany</i>

Amphi DONZELOT

T2. part 2		Thursday July 7 (11:10 AM – 12:00 AM) Chairs: Laurence ANGEL, Cedric PARIS
Amphi DONZELOT	Invited Lecture 11:10 AM	20' The merits of Electrospray Ionisation and Ion-Mobility Mass spectrometry for metal-binding peptides <u>Claudia BLINDAUER</u> ¹ , Maria Tareen ¹ , Celin Acharya ² , Frances KONDRAT ³ , James SCRIVENS ^{3,4} <i>1. Department of Chemistry, University of Warwick, Coventry, United Kingdom</i> <i>2. Molecular Biology Division, Bhabha Atomic Research Centre, Trombay, Mumbai, India</i> <i>3. School of Life Sciences, University of Warwick, Coventry, United Kingdom</i> <i>4. School of Health & Life Sciences, Teesside University, Middlesbrough, United Kingdom</i>
	Oral Communication 11:30 AM	15' Metal Chelating Peptides Separation: from SPR affinity constant determination up to their IMAC simulation <u>Rachel IRANKUNDA</u> ¹ , Jairo CAMAÑO ¹ , Cédric PARIS ² , Steve PONTVIANNE ¹ , Loïc STEFAN ³ , Katalin SELMECZI ⁴ , Jean-Michel GIRARDET ⁵ , Sandrine BOSCHI-MULLER ⁶ , Laurence MUHR ¹ and Laetitia CANABADY-ROCHELLE ¹ <i>1. Université de Lorraine, CNRS, LRGP, Nancy, France</i> <i>2. Université de Lorraine, LIBio, Nancy, France</i> <i>3. Université de Lorraine, CNRS, LCPM, Nancy, France</i> <i>4. Université de Lorraine, CNRS, L2CM, Nancy, France</i> <i>5. Université de Lorraine, INRAE, IAM - ASIA, Nancy, France</i> <i>6. Université de Lorraine, CNRS, IMOPA, Nancy, France</i>
	Oral Communication 11:45 AM	15' Identification, characterization and optimization of lanthanide ion binding peptides for the recovery of rare earth elements <u>Gerda CLAUS</u> ¹ , Franziska LEDERER ¹ , Peter BOELEN ¹ and Björn DROBOT ² <i>1. Helmholtz Institute Freiberg for Resource Technology, Helmholtz-Zentrum Dresden-Rossendorf, Dresden, Germany</i> <i>2. Institute of Resource Ecology, Helmholtz-Zentrum Dresden-Rossendorf, Dresden, Germany</i>

Amphi DONZELOT	T2. part 3	Thursday July 7 (04:00PM – 4:50 PM) Chairs: Claudie BLINDAUER, Laurence MUHR	
	Invited Lecture 4:00 PM	20'	<p>Threshold Collision-Induced Dissociation of Ni(II) and Zn(II) Ternary Complexes of Metal Binding Peptides with Nitrilotriacetic Acid</p> <p><u>Laurence ANGEL</u>¹, Kwabena SENYAH¹, Amber FLORES¹, Anna ARREDONDO¹, Anna CORRALES¹, Chloe DUVAK¹, Charles MITCHELL¹, Oladapo FALOKUN¹, Derya KARABULUT¹ and Riccardo SPEZIA²</p> <p>1. Department of Chemistry, Texas A&M University-Commerce, Commerce, USA 2. Laboratoire de Chimie Théorique, Sorbonne Université, Paris, France</p>
	Oral Communication 4:20 PM	15'	<p>BioKollekt – A novel peptide-based separation platform for electronic scrap</p> <p><u>Franziska LEDERER</u>, Gerda CLAUS, Sabine MATYS and Peter BOELEN</p> <p>Helmholtz-Zentrum Dresden-Rossendorf, Helmholtz Institute Freiberg for Resource Technology, Dresden, Germany</p>
Oral Communication 4:35 PM	15'	<p>IP-RPLC-MS Screening of Iron Chelating Peptides by Differential Analysis of Mass Spectra</p> <p><u>Cédric PARIS</u>^{1,2}, Patrick CHAIMBAULT³, Katalin SELMECZI⁴, Céline CAKIR-KIEFER⁵, Stéphane DESOBRY¹ and Laetitia CANABADY-ROCHELLE⁶</p> <p>1. Laboratoire d'Ingénierie des Biomolécules, Université de Lorraine, Nancy, France 2. Plateau Analyse Structurale et Métabolomique, Université de Lorraine, Nancy, France 3. Laboratoire Chimie et Physique-Approche Multi-échelle des Milieux Complexes, Université de Lorraine, Metz, France 4. Laboratoire Lorrain de Chimie Moléculaire, Université de Lorraine & CNRS, Nancy, France 5. Unité Recherche Animal et Fonctionnalités des Produits Animaux, Université de Lorraine, Nancy, France 6. Laboratoire Réactions et Génie des Procédés, Université de Lorraine & CNRS, Nancy, France</p>	
Amphi A	T2. part 4	Friday July 8 (11:10 AM – 12:00 PM) Chairs: Peter FALLER, Cédric PARIS	
	Oral Communication 11:10 AM	15'	<p>Characterization of Phage Display Derived Phage Clones and Peptides for the Recovery of Valuable Metal Ions from Low Concentrated Water Streams</p> <p><u>Sabine MATYS</u>, Nora SCHÖNBERGER, Peter BOELEN, Franziska LEDERER and Katrin POLLMANN (presentation by Franziska Lederer)</p> <p>Helmholtz-Zentrum Dresden-Rossendorf, Helmholtz Institute Freiberg for Resource Technology, Freiberg, Germany</p>
	Oral Communication 11:25	15'	<p>Methodologies for Screening Metal-Chelating Peptides in Protein Hydrolysates for their Antioxidant Properties</p> <p><u>Sarah EL HAJJ</u>^{1,4}, Rachel IRANKUNDA¹, Jairo CAMANO ECHAVARRIA¹, Jean-Michel GIRARDET², Sandrine BOSCHI-MULLER³, Caroline GAUCHER⁴, Laetitia CANABADY-ROCHELLE¹</p> <p>1. Université de Lorraine, CNRS, LRGP, Nancy, France 2. Université de Lorraine, INRAE, IAM, Nancy, France 3. Université de Lorraine, CNRS, IMoPA, Nancy, France. 4. Université de Lorraine, CITHEFOR, Nancy, France</p>
Invited Lecture 11:40 AM	20'	<p>Setting-up a combinatorial strategy to discover efficient catalysts mimicking antioxidant metalloenzymes</p> <p><u>Nicolas DELSUC</u>, Amandine VINCENT, Koutedja COULIBALY and Clotilde POLICAR</p> <p>Laboratoire des biomolécules, LBM, Département de chimie, Ecole normale supérieure, PSL University, Sorbonne Université, CNRS, 75005 Paris, France</p>	

T3

KEYNOTE
INVITED LECTURE
ORAL COMMUNICATION

TOPIC 3 - Peptides-Metal ion interactions

Amphi A

T3. part 1		Tuesday July 5 (3:05 PM – 4:15 PM) Chairs: Giovanni LA PENNA, Katalin SELMECZI
Amphi A	Invited Lecture 3:05 PM	20' Comparison of the copper binding affinity of the various histidyl sites of tau protein <u>Katalin VÁRNAGY</u> <i>Department of Inorganic and Analytical Chemistry, University of Debrecen, Debrecen, Hungary</i>
	Invited Lecture 3:25 PM	20' Cu(I) binding to a novel metallothionein from <i>Y. lipolytica</i> <u>Aleksandra HECCEL</u> and Eva FREISINGER <i>Department of Chemistry, University of Zurich, Zurich, Switzerland</i>
	Oral Communication 3:45 PM	15' Peptides for modelling zinc-binding proteins <u>Justine SCHWARTE</u> , Katharina M. FROMM <i>Department of Chemistry, University of Fribourg, Fribourg, Switzerland</i>
	Oral Communication 4:00 PM	15' Exploring Metal Selectivity in Designed Peptide Scaffolds <u>Aimee BOYLE</u> ¹ , <u>Prianka LUTHER</u> ¹ , <u>Britt ROOIJAKKERS</u> ¹ , <u>Patrick VOSKAMP</u> ¹ and <u>Martin RABE</u> ² <i>1. Leiden Institute of Chemistry, Leiden University, Leiden, The Netherlands</i> <i>2. Max-Planck-Institut für Eisenforschung, Düsseldorf, Germany</i>

Amphi A

T3. part 2		Tuesday July 5 (4:45 PM – 5:40 PM) Chairs: Eva FREISINGER, Angélique SOUR
Amphi A	Invited Lecture 4:45 PM	20' Copper(I)-thiolate cluster assembly and metal selectivity bias in metallothionein-3 <u>Jenifer CALVO</u> ¹ , <u>Rhiza Lyne VILLONES</u> ¹ , <u>Nicholas YORK</u> ² , <u>Ewelina STEFANIAK</u> ³ , <u>Grace HAMILTON</u> ¹ , <u>Allison STELLING</u> ¹ , <u>Wojciech BAL</u> ³ , <u>Brad PIERCE</u> ² and <u>Gabriele MELONI</u> ¹ <i>1. Department of Chemistry and Biochemistry, The University of Texas at Dallas, Richardson, USA;</i> <i>2. Department of Chemistry and Biochemistry, University of Alabama, Tuscaloosa, USA;</i> <i>3. Institute of Biochemistry and Biophysics, Polish Academy of Sciences, Warsaw, Poland</i>
	Invited Lecture 5:05 PM	20' A short peptide motif forming a stable single-turn alpha helix upon interaction with Ag(I) <u>Peter Waaben THULSTRUP</u> ¹ , <u>Niklas Henrik FISCHER</u> ¹ and <u>Frederik DINESS</u> ² <i>1. Department of Chemistry, University of Copenhagen, Copenhagen, Denmark</i> <i>2. Department of Science and Environment, Roskilde University, Roskilde, Denmark</i>
	Oral Communication 5:25 PM	15' Neighbour Group Effects of Non-Binding Amino Acid in Silver(I) Binding Peptides <u>Florian MARQUENET</u> , <u>Lucille BABEL</u> , <u>Valentin CHABERT</u> , <u>Alexandre BIANCHI</u> and <u>Katharina M. FROMM</u> <i>Department of Chemistry, University of Fribourg, Fribourg, Switzerland</i>

Amphi DONZELOT

T3. part 3		Wednesday July 6 (2:15 PM – 4:05 PM) Chairs: Marie-Christine AVERLANT-PETIT, Jean-Didier MARECHAL
Keynote 2:15 PM	25'	Redox-modulator or metal buffer? Elucidating the role of glutathione in cellular copper homeostasis <u>Christoph FAHRNI</u> <i>Georgia Institute of Technology, School of Chemistry and Biochemistry, and Petit Institute for Petit Institute for Bioengineering and Bioscience, Atlanta, Georgia, USA</i>
Invited Lecture 2:40 PM	20'	Utilizing EPR spectroscopy to resolve metal-peptide interaction <u>Sharon RUHTHSTEIN</u> <i>The Chemistry Department and the Institute of Nanotechnology and Advanced Materials, Faculty of Exact Sciences, Bar Ilan University, Israel</i>
Invited Lecture 3:00 PM	20'	How antimicrobial silver interacts with peptide excerpts from efflux pump proteins <u>Katharina M. FROMM</u> ¹ , Valentin CHABERT ¹ , Aurélien CROCHET ¹ and Maggy HOLOGNE ² <i>1. Department of Chemistry, University of Fribourg, Fribourg, Switzerland 2. Institut de Sciences Analytiques, University Lyon 1, Lyon, France</i>
Invited Lecture 3:20 PM	20'	Applications of PAC spectroscopy to metal binding peptides: From metal site structure & dynamics to molecular rotational correlation times <u>Lars HEMMINGSEN</u> <i>Department of Chemistry, University of Copenhagen, Copenhagen, Denmark</i>
Keynote 3:40 PM	25'	Hidden players: how transient species orchestrate copper trafficking <u>Wojciech BAL</u> ¹ , Radosław KOTUNIAK ¹ and Peter-Leon HAGEDOORN ² <i>1. Institute of Biochemistry and Biophysics, Polish Academy of Sciences, Warsaw, Poland 2. Department of Biotechnology, Delft University of Technology, The Netherlands</i>

Amphi A

T3. part 4		Friday July 8 (9:00 AM – 10:30 AM) Chair: Katalin SELMECZI
Invited Lecture 9:00 AM	20'	Accelerated Molecular Dynamics Exploration of Metal Binding to Amyloid-β <u>Jamie PLATTS</u> , Oliver KENNEDY-BRITTEN and Nadiyah ALSHAMMARI <i>School of Chemistry, Cardiff University, Cardiff, UK</i>
Invited Lecture 9:20 AM	20'	Metal/thymosin β4 complexes in cell development, progression and death <u>Joanna Izabela LACHOWICZ</u> ¹ , Giuseppina PICHIRI ¹ , Marco PILUDU ² , Pierpaolo CONI ¹ , Monica PIRAS ¹ , Terenzio CONGIU ¹ , Mariusz JAREMKO ³ and Gavino FAA ¹ <i>1. Department of Medical Sciences and Public Health, University of Cagliari, Cagliari, Italy 2. Department of Biomedical Sciences, University of Cagliari, Cagliari, Italy 3. Smart-Health Initiative (SHI) and Red Sea Research Center (RSRC), Division of Biological and Environmental Sciences and Engineering (BESE), King Abdullah University of Science and Technology (KAUST), Thuwal, Saudi Arabia</i>
Invited Lecture 9:40 AM	20'	Molecular modelling of metallopeptides: strategies and applications Lorena ROLDAN-MARTIN ¹ , Laura MARTINEZ CASTRO ¹ , Mariona SODUPE ¹ , Eugenio VAZQUEZ SENTIS ² and <u>Jean-Didier MARECHAL</u> ¹ <i>1. Insilichem, Departament de Química, Universitat Autònoma de Barcelona, Bellaterra (Barcelona), Spain 2. Centro Singular de Investigación en Química Biolóxica e Materiais Moleculares (CiQUS) and Departamento de Química Orgánica, Universidade de Santiago de Compostela, Santiago de Compostela, Spain</i>

<p>Oral Communication 10:00 AM</p>	<p>15'</p>	<p>Modelling protein plasticity with metal ions Simone BOTTICELLI^{1,4}, Giovanni LA PENNA^{2,4}, Mai Suan LI³, Fabrizio MACHETTI², Silvia MORANTE^{1,4}, Germano NOBILI^{1,4}, Silvia PIZZANELLI², Giancarlo ROSSI¹, and Francesco STELLATO^{1,4} 1. Department of physics, University of Roma Tor Vergata, Roma, Italy 2. Institute of chemistry of organometallic compounds, National research council, Firenze and Pisa, Italy 3. Institute of physics, Polish academy of sciences, Warsaw, Poland 4. Section of Roma Tor Vergata, National institute of nuclear physics, Roma, Italy</p>
<p>Oral Communication 10:15 AM</p>	<p>15'</p>	<p>To bind or not to bind? – interaction of HSPB1 fragments with selected metal ions Agnieszka SZEBESCZYK¹ and Oliwia FRĄCZEK² 1. Faculty of Health Sciences, University of Opole, Opole, Poland 2. Faculty of Chemistry, University of Opole, Opole, Poland</p>

T4

KEYNOTE
INVITED LECTURE
ORAL COMMUNICATION

TOPIC 4 - Nutrition/Cosmetic applications

Auditorium DONZELOT

<p>T4</p>	<p>Wednesday July 6 (09:50 AM – 10:15 AM) Chairs: Vincent LEBRUN, Jason SHEARER</p>	
<p>Keynote 9:50 AM</p>	<p>25'</p>	<p>Antioxidant effects of metal chelating peptides from potato, seaweed and single cell proteins: Application in emulsions Betül Yesiltas¹, Tobias Olsen², Simon Gregersen³, Paolo Marcatili², Egon Hansen¹, Pedro Garcia-Moreno⁴ and <u>Charlotte Jacobsen</u>¹ 1. National Food Institute, Technical University of Denmark, Kgs. Lyngby, Denmark 2. Department of Health Technology, Technical University of Denmark, Kgs. Lyngby, Denmark 3. Department of Chemistry and Bioscience, Aalborg University, Denmark 4. Department of Chemical Engineering, University of Granada, Spain</p>

T5

KEYNOTE
INVITED LECTURE
ORAL COMMUNICATION

TOPIC 5 - Biological and health applications

Amphi DONZELOT

T5. part 1		Tuesday July 5 (3:05 PM – 4:00 PM) Chairs: Alfredo ANGELES-BOZA, Lars HEMMINGSEN
Amphi DONZELOT	Invited Lecture 3:05 PM	20' A Tale of Aromatic Rings: Copper Coordination within a Membrane-active Peptide <u>Myriam COTTEN</u> ¹ , Mary ROONEY ¹ , Alexander GREENWOOD ¹ , Yawei XIONG ¹ , Steven PAREDES ¹ , David GILES ² , Ella MIHAILESCU ³ and Alfredo ANGELES-BOZA ⁴ 1. Department of Applied Science, William & Mary, Williamsburg, USA 2. Department of Biology, Geology, and Environmental Science, University of Tennessee, Chattanooga, USA 3. Institute for Bioscience and Biotechnology Research, University of Maryland, Rockville, USA 4. Department of Chemistry, University of Connecticut, Storrs, USA
	Invited Lecture 3:25 PM	20' Hunting for Heavy Metal-Binding Peptides in Macrofungi and Linking Them to Metal (Hyper)Accumulation Traits Tereza LEONHARDT ¹ , Jan SÁCKÝ ¹ , Jan Borovička ^{2,3} , Jiří Šantrůček ¹ and <u>Pavel KOTRBA</u> ¹ 1. Department of Biochemistry and Microbiology, University of Chemistry and Technology, Prague, Czech Republic 2. Institute of Geology, Czech Academy of Sciences, Prague, Czech Republic 3. Nuclear Physics Institute, Czech Academy of Sciences, Prague, Czech Republic
	Oral Communication 3:45 PM	15' A Water-Soluble Peptoid Chelator that Can Remove Cu²⁺ from Amyloid-β Peptides and Stop the Formation of Reactive Oxygen Species Associated with Alzheimer's Disease <u>Anastasia BEHAR</u> ¹ , Laurent SABATER ² , Maria BASKIN ¹ , Christelle HUREAU ² and Galia MAAYAN ¹ 1. Schulich Faculty of Chemistry, Technion, Haifa, Israel 2. Laboratoire de Chimie de Coordination, CNRS, Toulouse, France

Amphi DONZELOT

T5. part 2		Tuesday July 5 (4:45 PM – 5:35 PM) Chairs: Joanna LACHOWICZ, Elena GIMENEZ-ARNAU
Amphi DONZELOT	Invited Lecture 4:45 PM	20' Diversity of copper complexes of amyloid-beta peptides and their (redox) activity <u>Nina WEZYNFELD</u> ¹ , Dobromiła SUDZIK ^{1,2} , Katarzyna JANKOWSKA ¹ , Mikołaj PIĘTKA ¹ , Aleksandra TOBOLSKA ^{1,3} and Wojciech WRÓBLEWSKI ¹ 1. Faculty of Chemistry, Warsaw University of Technology, Warsaw, Poland 2. Institute of Biochemistry and Biophysics, Polish Academy of Sciences, Warsaw, Poland 3. Faculty of Chemistry, University of Warsaw, Warsaw, Poland
	Oral Communication 5:05 PM	15' Enhancing Lead Detoxification Capabilities of Glutathione Through Modifications <u>Luca SAUSER</u> ¹ , Tagwa MOHAMMED ¹ , Lubomír RULÍŠEK ² and Michal SHOSHAN ¹ 1. Department of Chemistry, University of Zurich, Zurich, Switzerland 2. Institute of Organic Chemistry and Biochemistry, Czech Academy of Sciences, Prague, Czech Republic
	Oral Communication 5:20 PM	15' Histatins – insight into coordination chemistry, stability and antimicrobial activity <u>Joanna WATŁY</u> ¹ , Emilia DZIENI ¹ , Agnieszka MATERA-WITKIEWICZ ² , Aleksandra MIKOŁAJCZYK ² and Magdalena ROWIŃSKA-ŻYREK ¹ 1. Faculty of Chemistry, University of Wrocław, Wrocław, Poland 2. Faculty of Pharmacy, Wrocław Medical University, Wrocław, Poland

T5. part 3		Wednesday July 6 (2:15 PM – 3:50 PM) Chairs: Simone DELL'ACQUA, Ali OUADI
Keynote 2:15 PM	25'	Kinetic Insights into Amyloid-β Metal Ion Interactions and Implications for AD <u>Liming YING</u> <i>National Heart and Lung Institute, Imperial College London, London, United Kingdom</i>
Invited Lecture 2:40 PM	20'	Targeting intracellular bacteria with metal-binding peptides <u>Alfredo ANGELES-BOZA</u> ^{1,2} , Jasmin PORTELINHA ¹ , Samuel JULIANO ¹ , and Mark LIBARDO ¹ <i>1. Department of Chemistry, University of Connecticut, Storrs, CT, U.S.A.</i> <i>2. Institute of Materials Science, University of Connecticut, Storrs, CT, U.S.A.</i>
Invited Lecture 3:00 PM	20'	Targeting copper(II/I) ions with short ATCUN-like and hybrid peptides in the context of Alzheimer's disease <u>Christelle HUREAU</u> ¹ , Margot LEFEVRE ¹ , Michael OKAFOR ^{2,3} , Paulina GONZALEZ ^{1,2} , Laurent SABATER ¹ , Nicolas VITALE ³ , Peter FALLER ² and Charlène ESMIEU ¹ <i>1. Laboratoire de Chimie de Coordination, 205 Route de Narbonne, 31077 Toulouse cedex 04, France</i> <i>2. Institut de Chimie UMR 7177, University of Strasbourg / CNRS, Strasbourg, France</i> <i>3. Institut des Neurosciences Cellulaires et Intégratives UPR 3212, University of Strasbourg / CNRS, Strasbourg, France</i>
Oral Communication 3:20 PM	15'	Copper Chelation and Redox Silencing Activity of Fluorophore Labelled Short Peptides from Amyloid-β Peptide Yelisetty Venkata Suseela ¹ , Sabyasachi Mandal ² , Bertrand Vileno ¹ , Govindaraju Thimmiah ² and Peter Faller ¹ <i>1. Institut de Chimie, UMR 7177, CNRS-Université de Strasbourg, 4 rue Blaise Pascal, Strasbourg 67000, France</i> <i>2. Bioorganic Chemistry Laboratory, New Chemistry Unit, Jawaharlal Nehru Centre for Advanced Scientific Research, Jakkur, Bengaluru, 560064 Karnataka, India</i>
Oral Communication 3:35 PM	15'	Design, molecular modeling and synthesis of a novel peptide-based chelating agent for theranostic applications with ^{18}F-Al and ^{177}Lu complexation <u>Laurène WAGNER</u> ^{1,2} , Raül LOSANTOS ^{3,4} , Céline FROCHOT ⁵ , Gilles KARCHER ² , Antonio MONARI ³ , Charlotte COLLET ^{2,6} , Samir ACHERAR ¹ <i>1. LCPM, Université de Lorraine, CNRS, Nancy, France</i> <i>2. Nancyclotep, Plateforme d'imagerie médicale, Vandoeuvre-lès-Nancy, France</i> <i>3. ITODYS, Université de Paris, CNRS, Paris, France</i> <i>4. Department of Chemistry, CISQ, Universidad de La Rioja, Logroño, Spain</i> <i>5. LRGP, Université de Lorraine, CNRS, Nancy, France</i> <i>6. IADI, Université de Lorraine, INSERM, Nancy, France</i>

Amphi A	T5. part 4	Wednesday July 6 (4:40 PM – 5:30 PM) Chairs: Christelle HUREAU, Sharon RUTHSTEIN	
	Invited Lecture 4:40 PM	20'	Chemical Features of polyphenols, Amyloid-β and metal interactions <u>Daniela VALENSIN</u> ¹ , Arian KOLA ² and Francesco CURRO ³ <i>Department of Biotechnology, Chemistry and Pharmacy, University of Siena, Italy</i>
	Oral Communication 5:00 PM	15'	Targeting Guanine-Quadruplexes Using Hemopeptides Leen MASALHA, Nofar AVITAL SHASHA, Nurit ADIRAM and <u>Eyal GOLUB</u> <i>Department of Chemistry, Bar-Ilan University, Ramat-Gan, Israel</i>
	Oral Communication 5:15 PM	15'	Cu-II Binding Properties of N-Truncated Aβ Peptide: In Search of Biological Function <u>Ewelina STEFANIAK</u> ^{1,2} , Liming YING ¹ and Wojciech BAL ² <i>1. National Heart and Lung Institute, Imperial College London, Molecular Sciences Research Hub, London, UK</i> <i>2. Institute of Biochemistry and Biophysics, Polish Academy of Sciences, Warsaw, Poland</i>
Amphi DONZELOT	T5. part 5	Thursday July 7 (2:00 PM – 3:30 PM) Chairs: Fouzia BOULMEDAIS, Katalin VARNAGY	
	Oral Communication 2:00PM	15'	Ratiometric luminescent detection of exchangeable Copper(II) in biological samples <u>Enrico FALCONE</u> ¹ , Olivier SENEQUE ² , Laurent RAIBAUT ¹ and Peter FALLER ¹ <i>1. Institut de Chimie (UMR 7177), Université de Strasbourg – CNRS, Strasbourg, France</i> <i>2. LCBM (UMR 5249), Univ. Grenoble Alpes, CNRS, CEA, IRIG, Grenoble, France</i>
	Oral Communication 2:15PM	15'	Interaction of therapeutic and toxicological metallic compounds with model peptides containing disulfide, diselenide or selenylsulfide bridges <u>Luisa RONGA</u> ¹ , Mikel BERNABEU DE MARIA ¹ , Diego TESAURO ² , Lara MASSAI ³ , Christine ENJALBAL ⁴ , Filomena ROSSI ² , Filippo PRENCIPE ⁵ , Michele SAVIANO ⁵ , Luigi MESSORI ³ , Ryszard LOBINSKI ¹ <i>1. Université de Pau et des Pays de l'Adour, E2S UPPA, CNRS, IPREM, Pau, France.</i> <i>2. Department of Pharmacy and CIRPeB, Università Federico II, 80134 Naples, Italy.</i> <i>3. Department of Chemistry, University of Florence, Via dellaLastruccia 3-13, 50019 Sesto Fiorentino, Italy.</i> <i>4. IBMM, Univ Montpellier, CNRS, ENSCM, Montpellier, France.</i> <i>5. Istituto di Cristallografia (IC), CNR Via Amendola 122/O 70126 Bari Italy.</i>
	Oral Communication 2:30 PM	15'	Understanding the effect of amino- and carboxyl-terminal protection on the stability and metal chelation properties of the antimicrobial peptide calcitermin <u>Denise BELLOTTI</u> ^{1,2} , Emilia DZIEN ² , Magdalena ROWIŃSKA-ŻYREK ² and Maurizio REMELLI ³ <i>1. Department of Environmental and Prevention Sciences, University of Ferrara, Ferrara, Italy</i> <i>2. Faculty of Chemistry, University of Wrocław, Wrocław, Poland</i> <i>3. Department of Chemical, Pharmaceutical and Agricultural Sciences, University of Ferrara, Ferrara, Italy</i>
	Oral Communication 2:45 PM	15'	Understanding the interactions of Zn(II) and Cu(II) ions with the antimicrobial peptides isolated from marine organisms <u>Adriana MILLER</u> ¹ , Aleksandra MIKOŁAJCZYK ² , Agnieszka MATERA-WITKIEWICZ ² , Robert WIECZOREK ¹ and Magdalena ROWIŃSKA-ŻYREK ¹ <i>1 Faculty of Chemistry, University of Wrocław, Wrocław, Poland</i> <i>2 Faculty of Pharmacy, Wrocław Medical University, Wrocław, Poland</i>

<p style="text-align: center;">Oral Communication 3:00 PM</p>	<p style="text-align: center;">15'</p>	<p>Towards copper-binding peptide conjugates catalyzing ROS production for antimicrobial application <u>Merwan BOURAGUBA</u>¹, Adeline SCHMITT¹, Angélique SOUR¹, Vincent LEBRUN¹, Élise GLATTARD², Laurent RAIBAUT¹, Christophe ORVAIN³, Christian GAIDDON³ and Peter FALLER¹ <i>1. Biometals and Biological Chemistry, Institut de Chimie de Strasbourg (UMR 7177), Strasbourg, France</i> <i>2. Membrane Biophysics and NMR, Institut de Chimie de Strasbourg (UMR 7177), Strasbourg, France</i> <i>3. Stress Response and Innovative Therapies, Interface de Recherche Fondamentale et Appliquée en Cancérologie, Strasbourg, France</i></p>
<p style="text-align: center;">Oral Communication 3:15 PM</p>	<p style="text-align: center;">15'</p>	<p>A series of integrin targeted ruthenium-RGD conjugates for anticancer phototherapy <u>Liyan ZHANG</u>, Sylvestre BONNET <i>Metals in Catalysis, Biomimetics and Inorganic Materials, Leiden Institute of Chemistry, Leiden University, Leiden, The Netherlands</i></p>

Amphi DONZELOT

<p style="text-align: center;">T5. part 6</p>	<p style="text-align: center;">Friday July 8 (9:40 AM – 10:25AM) Chairs: Elena GIMENEZ-ARNAU, Liming YING</p>	
<p style="text-align: center;">Oral Communication 9:40 AM</p>	<p style="text-align: center;">15'</p>	<p>Interaction of Cu (II) with phosphorylated and non-phosphorylated peptides, models of the longest tau isoform. <u>Dimitra KYRIAKOU</u>¹, Vassilios MOUSSIS², Eleni BLETSA³, Yiannis ELIGIANNAKIS³ and Gerasimos MALANDRINOS¹ <i>1. Laboratory of Inorganic Chemistry, Department of Chemistry, University of Ioannina, Ioannina, Greece</i> <i>2. Laboratory of Protein and Peptide Chemistry, Department of Chemistry, University of Ioannina, Ioannina, Greece</i> <i>3. Laboratory of Physics Chemistry of Materials & Environment, Department of Physics, University of Ioannina, Ioannina, Greece</i></p>
<p style="text-align: center;">Oral Communication 9:55 AM</p>	<p style="text-align: center;">15'</p>	<p>Cyclic Tetrapeptides: Novel Remedy for Lead Poisoning <u>Tagwa MOHAMMED</u>¹, Christoph MEIER¹, Lubomír RULÍŠEK² and Michal SHOSHAN¹ <i>1. Department of Chemistry, University of Zurich, Zurich, Switzerland</i> <i>2. Institute of Organic Chemistry and Biochemistry, Czech Academy of Sciences, Prague, Czech Republic</i></p>
<p style="text-align: center;">Oral Communication 10:10 AM</p>	<p style="text-align: center;">15'</p>	<p>Interaction between hemin and peptides relevant to neurodegenerative diseases <u>Simone DELL'ACQUA</u>, Chiara BACCHELLA, a Luigi CASELLA, Enrico MONZANI <i>Dipartimento di Chimica, Università di Pavia, Via Taramelli 12, 27100, Pavia, Italy</i></p>

T6

KEYNOTE
INVITED LECTURE
ORAL COMMUNICATIONTOPIC 6: Detoxification & Environment
applications

Amphi A

T6.part 1	Wednesday July 6 (09:50 AM – 10:35 AM) Chairs: Gabriele MELONI, Marie-Odile SIMONNOT	
Keynote 09:50 AM	25'	Metallothioneins – Proteins with Peptidic Properties <u>Eva FREISINGER</u> <i>Department of Chemistry, University of Zurich, Zurich, Switzerland</i>
Invited Lecture 10:15 AM	20'	Lead-Detoxifying Short Peptides <u>Michal SHOSHAN</u> ¹ , Tagwa MOHAMMED ¹ , Luca SAUSER ¹ and Lubomír RULÍŠEK ² <i>1 Department of Chemistry, University of Zurich, Zurich, Switzerland</i> <i>2 Institute of Organic Chemistry and Biochemistry, Czech Academy of Sciences, Praha, Czech Republic</i>

Amphi A

T6.part 2	Wednesday July 6 (11:25 AM – 12:20 PM) Chairs: Gabriele MELONI, Marie-Odile SIMONNOT	
Invited Lecture 11:25 AM	20'	Irreversible silver binding to zinc finger peptides causes the formation of multinuclear AgnSn clusters and loss of their function <u>Artur KREŽEL</u> <i>Department of Chemical Biology, Faculty of Biotechnology University of Wrocław, Joliot-Curie 14a, 50-383 Wrocław, Poland</i>
Invited Lecture 11:45 AM	20'	Phytochelatin – multi-tasking metal-binding peptides <u>Stephan CLEMENS</u> ¹ , Erik PISCHKE ² , Sarah NITSCHKE and Michael WEBER ³ <i>Department of Plant Physiology, University of Bayreuth, Bayreuth, Germany</i>
Oral Communication 12:05 PM	15'	How can metals present in hyperaccumulator plants be recovered? <u>Marie-Odile SIMONNOT</u> , Baptiste LAUBIE <i>LRGP, Université de Lorraine-CNRS, Nancy, France</i>

Amphi
DONZELOT

T6.part 3	Thursday July 7 (10:15 AM – 10:35 PM) Chairs: Marie-Christine AVERLANT-PETIT, Michal SHOSHAN	
Invited Lecture 10:15 AM	20'	Complementary Roles of Metallothioneins and Phytochelatin in Cd Detoxification of Animals? Facts and Questions <u>Reinhard DALLINGER</u> , Martin DVORAK, Veronika PEDRINI-MARTHA, and Reinhard LACKNER <i>Department of Zoology and Center for Molecular Biosciences Innsbruck, University of Innsbruck, Austria</i>

Amphi
DONZELOT

T6.part 4	Friday July 8 (9:20 AM – 9:40 AM) Chairs: Elena GIMENEZ-ARNAU, Liming YING	
Invited Lecture 9:20 AM	20'	Antioxidant and divalent metal chelating properties of milk lactoferrin <u>Céline CAKIR-KIEFER</u> ¹ , Faiez HENTATI ¹ , Zhanar NARMURATOVA ² , Jean-Michel GIRARDET ³ , Meyramkul NARMURURATOVA ² <i>1. Université de Lorraine, INRAE, URAFPA, 54000 Nancy, France</i> <i>2. Kazakh National University Al-Farabi, Faculty of Biology and Biotechnology, 050040 Almaty, Kazakhstan</i> <i>3. Université de Lorraine, INRAE, IAM, UMR 1136, 54000 Nancy, France</i>

T7

KEYNOTE
INVITED LECTURE
ORAL COMMUNICATION

TOPIC 7 - Biomaterials applications

Amphi DONZELOT	T7. part 1		Thursday July 7 (9:50 AM – 10:15 AM) Chairs: Marie-Christine AVERLANT-PETIT, Michal SHOSHAN
	Keynote 9:50 AM	25'	Metal-induced peptide folding and assembly <u>Tomohisa SAWADA</u> ^{1,2} and <u>Makoto FUJITA</u> ^{1,3} <i>1. Department of Applied Chemistry, School of Engineering, The University of Tokyo, Tokyo, Japan</i> <i>2. JST-PRESTO, Saitama, Japan</i> <i>3. Division of Advanced Molecular Science, Institute for Molecular Science, Okazaki, Japan</i>
Amphi A	T7. part 2		Thursday July 7 (11:10 AM – 12:00 AM) Chairs: Ivan KOREDOVYCH, Vincent LEBRUN
	Invited Lecture 11:10	20'	Construction of Stimuli-responsive Materials Containing a Metalloporphyrin-Peptide Conjugate as a Building Block <u>Koji OOHORA</u> ¹ and <u>Takashi HAYASHI</u> ¹ <i>Department of Applied Chemistry, Graduate School of Engineering, Osaka University, Suita, Japan</i>
	Oral Communication 11:30	15'	Rare Earth phosphor-binding peptides for the functionalization of magnetic nanoparticles and application in biomagnetic separation <u>Peter BOELEN</u> , <u>Caroline BOBETH</u> , <u>Sabine MATYS</u> , <u>Katrin POLLMANN</u> and <u>Franziska LEDERER</u> <i>Helmholtz-Zentrum Dresden-Rossendorf, Helmholtz Institute Freiberg for Resource Technology, Freiberg, Germany</i>
	Oral Communication 11:45	15'	Zn²⁺-Coordination-Driven Helical Dodecapeptide Assembly Hydrogel with Bio-Adhesive and Bone Regeneration Functions <u>Di WU</u> ¹ , <u>Shuzhen CHENG</u> ¹ , <u>Zhe XU</u> ¹ , <u>Lishu WANG</u> ² , <u>Hesham EL-SEEDI</u> ³ , <u>Guanghua ZHAO</u> ⁴ , <u>Xianbing XU</u> ¹ , and <u>Ming DU</u> ¹ <i>1. School of Food Science and Technology, Dalian Polytechnic University, Dalian, China</i> <i>2. Division of Hematology and Oncology, Department of Medicine, Medical College of Wisconsin, USA</i> <i>3. Division of Pharmacognosy, Department of Medicinal Chemistry, Biomedical Centre, Uppsala University, Sweden</i> <i>4. College of Food Science & Nutritional Engineering, China Agricultural University, Beijing, China</i>
Amphi DONZELOT	T7. part 3		Friday July 8 (11:10 AM – 11:55 AM) Chairs: Marie-Christine AVERLANT-PETIT, Loic STEPHAN
	Keynote 11:10 PM	25'	Self-defensive peptidic based coatings against bacteria and yeast <u>Gwenaëlle CADO</u> ¹ , <u>Rizwan ASLAM</u> , <u>Lydie SEON</u> ¹ , <u>Halima KERDJOU</u> ² , <u>Marie-Hélène METZ-BOUTIGUE</u> ³ , <u>Loïc JIERRY</u> ¹ , <u>Pierre SCHAFF</u> ³ and <u>Fouzia BOULMEDAIS</u> ¹ <i>1. Institut Charles Sadron, CNRS, Strasbourg, France</i> <i>2. BIOS, Université de Reims Champagne Ardennes</i> <i>3. Biomaterials and Bioengineering UMR 1121, INSERM, Strasbourg, France</i>
	Invited Lecture 11:35 AM	20'	Metal-promoted Assembly of Peptide-based Materials for Regenerative Medicine <u>Jean CHMIELEWSKI</u> (presentation by <u>Michael JORGENSEN</u>) Department of Chemistry, Purdue University, West Lafayette IN, USA

T8

KEYNOTE
INVITED LECTURE
ORAL COMMUNICATIONTOPIC 8 - Catalysis and Biocatalysis
(metalloenzymes)

Amphi DONZELOT	T8.part 1	Wednesday July 6 (10:15 AM – 10:35 AM) Chairs: Vincent LEBRUN, Jason SHEARER	
	Invited Lecture 10:15 AM	20'	Copper binding at His-His sites of model peptides: implications on oxidase activity Silvia GENTILI ¹ , Olga IRANZO ² and <u>Matteo TEGONI</u> ¹ 1. Department of Chemistry, Life Sciences and Environmental Sustainability, University of Parma, Parma, Italy 2. CNRS Centrale Marseille, Institut des Sciences Moléculaires de Marseille, Aix Marseille Université, Marseille, France
Amphi DONZELOT	T8.part 2	Wednesday July 6 (11:25 AM – 12:00 PM) Chairs: Raphaël SCHNEIDER, Jason SHEARER	
	Invited Lecture 11:25	20'	A bioinspired peptidic approach to develop copper catalysts for sustainable oxidation reactions Alexandre HAUTIER ¹ , Pierre ROUSSELOT-PAILLEY ¹ , Daniela VALENSIN ² , Tiago CARVALHO ¹ , Jalila SIMAAN ¹ , Bruno FAURE ¹ , Pedro MATEUS ³ , Rita DELGADO ³ and <u>Olga IRANZO</u> ¹ 1. iSm2, Aix-Marseille University, CNRS, Centrale Marseille, Marseille, France 2. Department of Biotechnology, Chemistry and Pharmacy, University of Siena, Siena, Italy 3. Instituto de Tecnologia Química e Biológica António Xavier, Universidade Nova de Lisboa, Oeiras, Portugal
	Oral Communication 11:45	15'	Fighting oxidative stress thanks to Ni-SOD mimics <u>Paweł GUINARD</u> ^{1,2} , Jérémy DOMERGUE ^{1,2} , Jacques PECAUT ¹ , Pascale MALDIVI ¹ , Alan LE-GOFF ² , Olivier PROUX ³ , Sarah HOSTACHY ¹ , Carole DUBOC ² and Pascale DELANGLE ¹ 1. Systèmes Moléculaires et nanoMatériaux pour l'Energie et la Santé (SyMMES), Grenoble, France 2. Département de Chimie Moléculaire (DCM), Grenoble, France 3. Observatoire des Sciences de l'Univers de Grenoble (OSUG), Grenoble, France
Amphi DONZELOT	T8.part 3	Wednesday July 6 (4:40 PM – 5:35 PM) Chairs: Anabella IVANCICH, Vincent LEBRUN	
	Invited Lecture 4:40 PM	20'	Catalytic Amyloids Promote Carbon Dioxide Hydration with Efficiencies that Rival those of Native Carbonic Anhydrases <u>Ivan KORENDOVYCH</u> Department of Chemistry, Syracuse University, Syracuse, NY, USA
	Invited Lecture 5:00	20'	Understanding Differential {Fe-O₂}_n- Reactivity Effected By Mononuclear Non-Heme Iron Containing Metalloenzymes Using Metallopeptide Based Models <u>Jason SHEARER</u> Department of Chemistry, Trinity University, San Antonio, TX, U.S.A.
	Oral Communication 5:20	15'	Copper complexes as bioinspired models for lytic polysaccharide monooxygenases (LPMO) <u>Azza HASSOON</u> ^{1,4} , Attila SZORCSIK ¹ , Livia FÜLÖP ² , Nóra MAY ³ , Tamás GAJDA ¹ 1. Department of Inorganic and Analytical Chemistry, University of Szeged, Szeged, Hungary 2. Institute of Medical Chemistry, University of Szeged, Szeged, Hungary 3. Institute of Organic Chemistry, Research Centre for Natural Sciences HAS, Budapest, Hungary 4. Chemistry Department, Faculty of Science, Mansoura University, Mansoura, Egypt

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POSTER SESSION

Wednesday 6 July – 10:35 AM - 11:20 AM (SP1)

Thursday 7 July – 01:15 PM – 2:00 PM (SP2)

T1	TOPIC 1: Chemical design / Proteolysis
SP1-T1-01 397050	<p>Complexation of copper(II) ion by camel milk casein tryptic hydrolysate Faiez HENTATI¹, Katalin SELMECZI², Ainissa AKINDYKOVA³, Stefan JURJANZ¹, Jean-Michel GIRARDET⁴, Almagul BAUBEKOVA³, <u>Céline CAKIR-KIEFER</u>¹</p> <p>1. Université de Lorraine, INRAE, URAFPA, 54000 Nancy, France 2. Université de Lorraine, CNRS, L2CM, UMR 7053, 54000 Nancy, France 3. Kazakh National University Al-Farabi, Faculty of Biology and Biotechnology, 050040 Almaty, Kazakhstan 4. INRAE, IAM, UMR 1136, 54000 Nancy, France</p>
SP1-T1-02 393528	<p>Rational design of a new family of lanthanide-binding peptides Emilie MATHIEU, Thomas PICHON and Christelle HUREAU <i>Laboratoire de Chimie de Coordination (UPR 8241), Toulouse, France</i></p>
SP1-T1-03 397168	<p>Rational design of antioxidant metal-chelating peptides with dual direct/indirect mode of action Gizella CSIRE¹, François DUPIRE¹, Laetitia CANABADY-ROCHELLE², Loïc STEFAN³ and Katalin SELMECZI¹</p> <p>1. Université de Lorraine, CNRS, L2CM, F-54000 Nancy, France 2. Université de Lorraine, CNRS, LRGP, F-54000 Nancy, France 3. Université de Lorraine, CNRS, LCPM, F-54000 Nancy, France</p>

T2	TOPIC 2: Screening/Separation of MBP
SP1-T2-03 393585	<p>In Silico Screening of Metal-Chelating Peptides present in Tilapia Scale Protein Hydrolysates <u>Jairo CAMAÑO</u>^{1,2}, Roda BOUNACEUR¹, José ZAPATA², Katalin SELMECZI³ and Laetitia CANABADY-ROCHELLE¹</p> <p>1 Université de Lorraine, CNRS, LRGP, F-54000 Nancy, France 2 Universidad de Antioquia, CIFAL, NUTEC, 050010 Medellín, Colombia 3 Université de Lorraine, CNRS, L2CM, F-54000 Nancy, France</p>
SP1-T2-04 397110	<p>Metal-Chelating Peptides Separation: Effects of different parameters on their IMAC simulation <u>Rachel IRANKUNDA</u>¹, Jairo CAMAÑO¹, Alexandra MARC¹, Mads BJORLIE², Sandrine BOSCHI-MULLER³, Charlotte JACOBSEN², Laurence MUHR¹ and Laetitia CANABADY-ROCHELLE¹</p> <p>1. Université de Lorraine, CNRS, LRGP, Nancy, France 2. Technical University of Denmark, Food Department, Lyngby, Denmark 3. Université de Lorraine, CNRS, IMOPA, Nancy, France</p>

T3	TOPIC 3 - Peptides-Metal ion interactions	
<p>SP1-T3-05 393546</p>		<p>Behavior of Ag⁺ binding on HXXH and MXXM peptides <u>Alexandre BIANCHI</u>, Florian MARQUENET and Katharina M. FROMM <i>Department of Chemistry, University of Fribourg, Fribourg, Switzerland</i></p>
<p>SP1-T3-06 386651</p>		<p>Lanmodulin Peptides – Unravelling the Binding Properties of the EF-Hand Loop Sequences Stripped from the Structural Corset <u>Sophie GUTENTHALER</u>¹, Satoru TSUSHIMA^{2,3}, Robin STEUDTNER², Manuel GAILER¹, Anja HOFFMANN-RÖDER¹, Björn DROBOT² and Lena DAUMANN¹ <i>1 Department of Chemistry, Ludwig-Maximilians-University, Munich, Germany</i> <i>2 Institute of Resource Ecology, Helmholtz-Zentrum Dresden-Rossendorf, Dresden, Germany</i> <i>3 World Research Hub Initiative, World Research Hub Initiative, Tokyo, Japan</i></p>
<p>SP1-T3-07 397121</p>		<p>Silver binding to a peptide model of Rad50 interprotein hook domain <u>Olga KERBER</u>, Józef TRAN, Alicja MISIASZEK, Aleksandra CHORAŻEWSKA and Artur KRĘŻEL <i>Department of Chemical Biology, Faculty of Biotechnology University of Wrocław, Wrocław, Poland</i></p>
<p>SP1-T3-08 397171</p>		<p>New ATCUN peptides to prevent ROS formed by Amyloid-β bound Copper: evidence for a sequence - activity relationship <u>Margot LEFEVRE</u>, Charlène ESMIEU and Christelle HUREAU <i>Laboratoire de Chimie de Coordination, CNRS UPR 8241, Toulouse, France</i></p>
<p>SP1-T3-09 394782</p>		<p>Modeling coordination properties of the bacterial metal ions transport system Feo Bartosz ORZEŁ¹, Małgorzata OSTROWSKA¹, Massimiliano PEANA² and Elżbieta GUMIENNA-KONTECKA¹ <i>1. Faculty of Chemistry, University of Wrocław, Wrocław, Poland</i> <i>2. Department of Chemistry and Pharmacy, University of Sassari, Sassari, Italy</i></p>
<p>SP1-T3-10 390286</p>		<p>Impact of Cu(II) and Al(III) on the conformational landscape of amyloidβ1-42 <u>Lorena ROLDÁN-MARTÍN</u>¹, Francesca PECCATI^{1,2}, Giuseppe SCIORTINO^{1,3}, Mariona SODUPE¹ and Jean-Didier MARÉCHAL¹ <i>1. InSiliChem, Departament de Química, Universitat Autònoma de Barcelona, Campus Bellaterra, Barcelona, Spain</i> <i>2. Center for Cooperative Research in Biosciences (CIC bioGUNE), Basque Research and Technology Alliance, Spain</i> <i>3. Institut of Chemical Research of Catalonia, The Barcelona Institute of Science and Technology, Tarragona, Spain</i></p>

T4	TOPIC 4 - Nutrition/Cosmetic applications	
<p>SP2-T4-11 397324</p>		<p>Metal-Chelating Peptides as Antioxidants in Food Production – Screening and Application <u>Mads BJØRLIE</u>¹, Rachel IRANKUNDA², Laetitia CANABADY-ROCHELLE², Sandrine BOSCHI-MÜLLER³, Betül YESILTAS¹, Charlotte JACOBSEN¹ <i>1. National Food Institute, Technical University of Denmark, Lyngby, Denmark</i> <i>2. Université de Lorraine, CNRS, LRGP, F-54000, Nancy, France</i> <i>3. Université de Lorraine, CNRS, IMoPA, F-54000, Nancy, France</i></p>

T5	TOPIC 5 - Biological and health applications
<p>SP2-T5-12 393438</p>	<p>Bioinorganic chemistry of amylin-like Zn(II) complexes – the key to their antifungal activity <u>Emilia DZIEN</u>¹, Dorota DUDEK¹, Joanna WĄTŁY¹, Aleksandra MIKOŁAJCZYK², Agnieszka MATERA-WITKIEWICZ², Agata HAJDA³, Joanna OLESIK-BAŃSKA³ and Magdalena ROWIŃSKA-ŻYREK¹ 1. Faculty of Chemistry, University of Wrocław, Wrocław, Poland 2. Screening of Biological Activity Assays and Collection of Biological Material Laboratory, Wrocław Medical University Biobank, Faculty of Pharmacy, Wrocław Medicinal University, Wrocław, Poland 3. Faculty of Chemistry, Wrocław University of Science and Technology, Wrocław, Poland</p>
<p>SP2-T5-13 397212</p>	<p>Development of a cell-based ferroptosis model to screen metal chelating peptides bioactivity <u>Sarah EL HAJJ</u>^{1,2}, Théo ZIMMERMAN², Isabelle FRIES², Laetitia CANABADY-ROCHELLE¹, Caroline GAUCHER² 1. Université de Lorraine, CNRS, LRGP, Nancy, France 2. Université de Lorraine, CITHEFOR, Vandoeuvre Les Nancy, France</p>
<p>SP2-T5-14 393376</p>	<p>Specific Zn(II) binding sites in C-terminus of AspF2, a zincophore from Aspergillus fumigatus <u>Kinga GARSTKA</u>¹, Aleksandra HECEL¹, Henryk KOZŁOWSKI^{1,2} and Magdalena ROWIŃSKA-ŻYREK¹ 1. Faculty of Chemistry, University of Wrocław, Wrocław, Poland 2. Institute of Health Sciences, University of Opole, Opole, Poland</p>
<p>SP2-T5-15 397225</p>	<p>Glimpses of the Anti-Cancer Metal Binding Peptide Bleomycin in Action: Crystal Structures of Co(III)•Bleomycin A2 and B2 Bound to DNA <u>Eric LONG</u>¹ and Millie GEORGIADIS² 1. Dept. of Chemistry & Chemical Biology, Indiana University-Purdue University Indianapolis (IUPUI), Indianapolis, USA 2. Dept. of Biochemistry & Molecular Biology, Indiana University School of Medicine, Indianapolis, USA</p>
<p>SP2-T5-16 397238</p>	<p>Candidacidal and metal chelating activities of histidine-rich short peptides derived from Shepherin I <u>Gustavo NUNES</u>¹, Rodrigo B. FAZZI², Ana M. C. FERREIRA², Breno P. ESPÓBITO², M. Teresa MACHINI¹ 1. Departments of Biochemistry, Institute of Chemistry, University os São Paulo, São Paulo, Brazil 2. Fundamental Chemistry, Institute of Chemistry, University os São Paulo, São Paulo, Brazil</p>
<p>SP2-T5-17 394644</p>	<p>Peptides radiolabeling: [68Ga]DOTA-glyco-c(RGDfK) for tumor angiogenesis imaging <u>Katalin SELMECZI</u>¹, Emilien MENGEL¹, Floriane MANGIN¹, Charlotte COLLET^{2,3}, Valérie JOUAN-HUREAUX⁴, Fatiha MASKALI², Emilie ROEDER², Julien PIERSON⁴, Cédric BOURA⁴, Nadia PELLEGRINI-MOÏSE¹, Sandrine LAMANDÉ-LANGLE¹ 1. Université de Lorraine, CNRS, L2CM, F-54000 Nancy, France 2. NancycloTEP, Molecular Imaging Platform, CHRU-Nancy, Université de Lorraine, Nancy, F-54000 France 3. Université de Lorraine, INSERM, U1254 IADI, F-54000 Nancy, France 4. Université de Lorraine, CNRS, CRAN, F-54000 Nancy, France</p>
<p>SP2-T5-18 396891</p>	<p>Synthesis, spectroscopic and relaxometric characterization of Cu(II)-responsive MRI agents <u>Katharina ZIMMETER</u>¹, Angélique SOUR¹, Peter FALLER¹, Harlei MARTIN² and Célia BONNET² 1. Institut de Chimie (UMR 7177), Université de Strasbourg-CNRS, Strasbourg, France 2. Centre de Biophysique Moléculaire, Université d'Orléans, Orléans, France</p>

SP2-T-19	<p>Impact of natural alkaloids on amyloid β induced cellular toxicity <u>Arian KOLA</u>¹, Stefania LAMPONI¹, Mawadda N. ALGHRABLY², Mariusz JAREMKO² and Daniela VALENSIN¹</p> <p><i>1 Department of Biotechnology, Chemistry and Pharmacy, University of Siena, Siena, Italy</i> <i>2 Biological and Environmental Science and Engineering Division, King Abdullah University of Science and Technology, Thuwal, Saudi Arabia</i></p>
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T6	TOPIC 6: Detoxification & Environment applications
SP2-T6-20 393191	<p>Recovery of manganese and cobalt through cell surface display of metal binding peptide on Escherichia coli <u>Soon HO HONG</u>, Jae Hoon JEONG, Ashokkumar KUMARVEL</p> <p><i>Department of Chemical Engineering, University of Ulsan, Ulsan, Korea</i></p>

T7	TOPIC 7 - Biomaterials applications
SP2-T7-21 392161	<p>Self-assembled Coiled-coil Peptide Nanotubes with Enhanced Stability and Metal-dependent Cargo Loading <u>Michael JORGENSEN</u> and Jean CHMIELEWSKI</p> <p><i>Department of Chemistry, Purdue University, West Lafayette, USA</i></p>

T8	TOPIC 8 - Catalysis and Biocatalysis (metalloenzymes)
SP2-T8-22 396652	<p>Installing a copper site into amyloids like fibers <u>Thibaut GALLER</u>¹, Vincent LEBRUN¹, Laurent RAIBAUT¹, Youssef EL KHOURY², Bertrand VILENO³, Nolwenn LE BRETON³, Petra HELLWIG² and Peter FALLER¹</p> <p><i>1. UMR 7177 BCB lab, CNRS, Strasbourg, France</i> <i>2. UMR 7140 LBS, CNRS, Strasbourg, France</i> <i>3. UMR 7177 POMAM lab, CNRS, Strasbourg, France</i></p>
SP2-T8-23 393582	<p>Synthetic heme-peroxidases: new insights into MC6*a structure <u>Ornella MAGLIO</u>¹, Marco CHINO², Fabio PIRRO², Vincenzo PAVONE², Flavia NASTRI² and Angela LOMBARDI²</p> <p><i>1. Institute of Biostructures and Bioimaging, CNR, Napoli, Italy</i> <i>2. Department of Chemical Sciences, University of Napoli Federico II, Napoli, Italy</i></p>
SP2-T8-24 390334	<p>Towards a pipeline for computer aided design of metallopeptides <u>Laura MARTÍNEZ CASTRO</u>¹, Soraya LEARTE AYMAMÍ², Sandra BAÚLDE ÁLVAREZ, David BOUZADA REBOREDO², Jose Luis MASCAREÑAS², Eugenio VÁZQUEZ SENTÍS² and Jean-Didier MARÉCHAL¹</p> <p><i>1. Insilichem, Departament de Química, Universitat Autònoma de Barcelona, Bellaterra (Barcelona), Spain</i> <i>2. Centro Singular de Investigación en Química Biolóxica e Materiais Moleculares (CiQUS) and Departamento de Química Orgánica, Universidade de Santiago de Compostela, Santiago de Compostela, Spain</i></p>

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FLASH POSTER SESSION

Thursday 7 July – 5:40PM – 6:00 PM

Amphi DONZELOT

T3	TOPIC 3 - Peptides-Metal ion interactions	
SP1-T3-05 393546		<p>Behavior of Ag⁺ binding on HXXH and MXXM peptides <u>Alexandre BIANCHI</u>, Florian MARQUENET and Katharina M. FROMM <i>Department of Chemistry, University of Fribourg, Fribourg, Switzerland</i></p>
T4	TOPIC 4 - Nutrition/Cosmetic applications	
SP2-T4-11 397324		<p>Metal-Chelating Peptides as Antioxidants in Food Production – Screening and Application <u>Mads BJØRLIE</u>¹, Rachel IRANKUNDA², Laetitia CANABADY-ROCHELLE², Sandrine BOSCHI-MÜLLER³, Betül YESILTAS¹, Charlotte JACOBSEN¹ <i>1. National Food Institute, Technical University of Denmark, Lyngby, Denmark</i> <i>2. Université de Lorraine, CNRS, LRGP, F-54000, Nancy, France</i> <i>3. Université de Lorraine, CNRS, IMoPA, F-54000, Nancy, France</i></p>
T5	TOPIC 5 - Biological and health applications	
SP2-T5-13 397212		<p>Development of a cell-based ferroptosis model to screen metal chelating peptides bioactivity <u>Sarah EL HAJJ</u>^{1,2}, Théo ZIMMERMAN², Isabelle FRIES², Laetitia CANABADY-ROCHELLE¹, Caroline GAUCHER² <i>1. Université de Lorraine, CNRS, LRGP, Nancy, France</i> <i>2. Université de Lorraine, CITHEFOR, Vandoeuvre Les Nancy, France</i></p>
T8	TOPIC 8 - Catalysis and Biocatalysis (metalloenzymes)	
SP2-T8-22 393582		<p>Synthetic heme-peroxidases: new insights into MC6*a structure <u>Ornella MAGLIO</u>¹, Marco CHINO², Fabio PIRRO², Vincenzo PAVONE², Flavia NASTRI² and Angela LOMBARDI² <i>1. Institute of Biostructures and Bioimaging, CNR, Napoli, Italy</i> <i>2. Department of Chemical Sciences, University of Napoli Federico II, Napoli, Italy</i></p>