



## Program

Time	Tuesday, July 16
16h00 - 18h15	<b>Registration</b>
18h30 - 20h00	<b>Get together / Introductory remarks</b> <b>Welcome drink</b>
20h00	Dinner

Time	Wednesday, July 17
09h00 - 09h15	<b>DMSO Reductase Family Enzymes - Structural and Mechanistic Aspects</b> Chair: A. Magalon (CNRS, France)
09h15 - 09h45	J. Weiner (University of Alberta, Canada) "Pyranopterin coordination controls catalytic competency in bis-pyranopterin containing enzymes"
09h45 - 10h15	J. Heider (Philipps University of Marburg, Germany) "Ethylbenzene dehydrogenase and related enzymes: mechanisms and functions"
10h15 - 10h45	J. Santini (University College London, UK) "Structural and mechanistic studies of the arsenite oxidase"
10h45 - 11h15	Coffee Break
11h15 - 11h45	B. Guigliarelli (CNRS, France) "Spectroscopic and kinetic studies of substrate interaction with molybdenum cofactor in nitrate reductases"
11h45 - 12h15	P. Gonzalez (Universidade Nova de Lisboa, Portugal) "Substrate-dependent modulation of the enzymatic catalytic activity: reduction of nitrate, chlorate and perchlorate by respiratory nitrate reductase from <i>Marinobacter hydrocarbonoclasticus</i> 617"
12h15 - 12h45	P. Arnoux (CNRS - CAE, France) "Structural basis of the molybdenum cofactor sulfuration mechanism of formate dehydrogenases"
12h45 - 13h00	I. Pereira (Universidade Nova de Lisboa, Portugal) "DMSO reductase family proteins in <i>Desulfovibrio vulgaris</i> Hildenborough"
13h00- 14h30	Lunch
14h30 - 14h45	<b>Sulfite Oxidase Family Enzymes - Structural and Mechanistic Aspects</b> Chair: M. Kirk (University of New Mexico, USA)
14h45 - 15h15	J. Enemark (University of Arizona, USA) "Applications of pulsed EPR spectroscopy to structural studies of sulfite oxidizing enzymes"
15h15- 15h30	A. Belaidi (University of Cologne, Germany) "Engineering spin labelled and heme-deficient sulfite oxidase: insights into substrate specificities"
15h30 - 15h45	B. Stein (University of New Mexico, USA) "Spectroscopic and computational studies of sulfite oxidase family enzymes"
15h45 - 16h00	K. Schrader (University of Cologne, Germany) "Novel function of plant nitrate reductase N-terminus"
16h00 - 16h15	P. Ringel (Braunschweig University of Technology, Germany) "Moco-free nitrate reductase from <i>Neurospora crassa</i> "
16h15 - 16h45	Coffee Break
16h45 - 17h00	<b>Mo/W Enzymes Model Compounds</b> Chair: H. Sugimoto (University of Osaka, Japan)
17h00 - 17h30	P. Basu (Duquesne University, USA) "New insight to structure-function of oxo-Mo centers from guilty dithiolene ligands"
17h30 - 18h00	C. Schulzke (Ernst-Moritz-Arndt Universität Greifswald, Germany) "Partly unexpected developments in dithiolene chemistry - Mo and W enzymes' active site models"
18h00 - 18h30	S. Burgmayer (Bryn Mawr College, USA) "Using model chemistry to investigate the role of the pterin dithiolene ligand in the molybdenum cofactor"
18h30 - 20h00	Poster Session
20h00	Dinner Palmira Fontes da Costa (Universidade Nova de Lisboa, Portugal) <b>"At the table with Dr. Garcia de Orta"</b>

Time	Thursday, July 18
09h00 - 09h15	<b>Xanthine Oxidase Family Enzymes - Structural and Mechanistic Aspects</b> Chair: R. Hille (University of California, Riverside, USA)
09h15 - 09h45	T. Santos-Silva (Universidade Nova de Lisboa, Portugal) "Bacterial monomeric aldehyde oxidases"
09h45 - 10h15	P. Bernhardt (University of Queensland, Australia) "Electrochemical communication with molybdoenzymes"
10h15 - 10h30	C. Coelho (Universidade Nova de Lisboa, Portugal) "Mouse and human aldehyde oxidases"
10h30 - 10h45	J. Wilcoxon (University of California, Riverside, USA) "Kinetic studies of H <sub>2</sub> oxidation by the Mo/Cu-containing carbon monoxide dehydrogenase of <i>Oligotropha carboxydovorans</i> "
10h45 - 11h15	Coffee Break
11h15 - 12h30	Poster Session
12h30 - 12h45	Benjamin Williams (Bryn Mawr College, USA) "Synthesis and reactivity of molybdenum pyranopterin dithiolene complexes modeling the molybdenum cofactor"
12h45 - 13h00	Teruo Kusano (Nippon Medical School, Japan) "Effect of superoxide hyper generation xanthine oxidase type mutation and xanthine dehydrogenase type mutation on mouse"
13h00	Group Photo
13h00- 14h30	Lunch
14h30 - 15h30	Conference Org. Meeting
14h30 - 18h15	Free time
18h15 - 18h30	<b>Medical Aspects and Applications of Mo/W Enzymes</b> Chair: M.J. Romão (Universidade Nova de Lisboa, Portugal)
18h30 - 19h00	T. Nishino (University of Tokyo, Japan) "What have we learned from the work of development of anti-gout drugs?"
19h00 - 19h30	G. Schwarz (Cologne University, Germany) "The mitochondrial world of molybdenum: biogenesis, deficiency and novel functions"
19h30 - 20h00	U. Kappler (University of Queensland, Australia) " <i>Haemophilus influenzae</i> molybdenum enzymes as a mechanism to support bacterial persistence and interactions with epithelial cells"
20h00	Dinner

Time	Friday, July 19
09h00 - 09h15	<b>Cofactor Chemistry and Assembling</b> Chair: R. Mendel (Braunschweig University of Technology, Germany)
09h15 - 09h45	S. Leimkühler (University of Potsdam, Germany) "Novel aspects on molybdenum cofactor biosynthesis in <i>Escherichia coli</i> "
09h45 - 10h15	J. Cszaszar (University of Cologne, Germany) "Catabolism of the molybdenum cofactor - identification of the urothione methyltransferase"
10h15 - 10h45	F. Bittner (Braunschweig University of Technology, Germany) "Final activation of xanthine oxidase family enzymes: new insights into the mechanism of molybdenum cofactor sulfuration"
10h45 - 11h15	Coffee Break
11h15 - 11h30	<b>Tungsten-containing Enzymes - Structural and Mechanistic Aspects</b> Chair: I. Moura (Universidade Nova de Lisboa, Portugal)
11h30 - 12h00	G. Rivas (Universidade Nova de Lisboa, Portugal) "Molybdenum and tungsten selectivity in formate dehydrogenases from <i>Desulfovibrio alaskensis</i> G20"
12h00 - 12h30	M. Boll (University of Freiburg, Germany) "The tungsten-containing benzoyl-CoA reductase complex"
12h30 - 12h45	R. Liao (Stockholm University, Sweden) "Why is the Mo-substituted W-dependent formaldehyde ferredoxin oxidoreductase not active?"
12h45 - 13h00	C. Brondino (Universidad Nacional del Litoral, Argentina) "EPR characterization of mononuclear Mo/W enzymes"
13h00- 14h30	Lunch
14h30 - 14h45	<b>Mo/W Enzymes - Theoretical Studies</b> S. Sarkar (Bengal Engineering and Science University, India)
14h45 - 15h15	M. Kirk (University of New Mexico, USA) "Understanding the pyranopterin cofactor and its role in molybdoenzyme catalysis"
15h15- 15h45	N. Cerqueira (Universidade do Porto, Portugal) "The sulfur-shift: an activation mechanism for periplasmic nitrate reductase and formate dehydrogenase"
15h45 - 16h00	F. Biaso (CNRS, France) "DFT calculations and magnetostructural correlations on nitrate reductases Mo(v) species"
16h00 - 16h30	Coffee Break
16h30 - 16h45	<b>Novel Enzymes, Structures and Mechanisms</b> Chair: J.J.G. Moura (Universidade Nova de Lisboa, Portugal)
16h45 - 17h15	B. Clement (Christian-Albrechts-University of Kiel, Germany) "Novel aspects of the human molybdenum containing enzyme mARC"
17h15 - 17h45	S. Pauleta (Universidade Nova de Lisboa, Portugal) "A Cu-Mo protein involved in cell division of anaerobic bacteria"
17h45 - 18h00	B. Maiti (Universidade Nova de Lisboa, Portugal) "Incorporation of molybdenum in iron-site of rubredoxin - a model for molybdoenzymes?"
18h00 - 18h15	L. Maia (Universidade Nova de Lisboa, Portugal) "Mammalian nitrite-mediated NO formation: role of xanthine oxidase and aldehyde oxidase"

Friday, July 19 (cont.)	
Time	<b>Nitrogenase - Structural and Mechanistic Aspects</b>
18h15 - 18h30	Chair: J.J.G. Moura (Universidade Nova de Lisboa, Portugal)
18h30 - 19h00	L. Seefeldt (Utah State University, USA) "Insights into N <sub>2</sub> reduction catalyzed by nitrogenase"
19h00 - 19h30	O. Einsle (University of Freiburg, Germany) "The structure and properties of FeMo cofactor"
19h30 - 20h00	M. Ribbe (University of California, Irvine, USA) "Tracing the interstitial carbide of the nitrogenase cofactor"
21h00	<b>at Seteais Palace</b> <b>Conference Dinner / Closing Remarks</b> (annoucem. next Conference)