

Seminars 2005

February 2005

Monday 7th , 18.00

Prof. Norbert Muller (Johannes Kepler University, Linz, Austria)

"Secondary Cell Wall Oligo-Saccharides Investigated by Multi-Nuclear NMR"

Friday 11th , 17.00

Prof. Federico Cozzolino (Universita' di Firenze, Dip. di Fisiopatologia Clinica)

"Molecular Control of Bcl-2 Function in memory B lymphocytes"

Wednesday 23rd , 18.00

Dr. Diane Cabelli (Chemistry Department, Brookhaven National Laboratory, NY)

"Manganese Superoxide Dismutase and Radiation Resistance in D.Radiodurans"

Thursday 24th , 14.00

Prof. JS Valentine (Department of Chemistry and Biochemistry University of California, Los Angeles) "Molecular Mechanisms of CuZnSOD-Linked ALS "

First Lecture

March 2005

Thursday 3rd, 10th, 17th, 14.00, three lectures

Prof. JS Valentine (Department of Chemistry and Biochemistry University of California, Los Angeles)

"Molecular Mechanisms of CuZnSOD-Linked ALS "

Friday 4th, 18.00,

Prof. Elizabeth C.Theil(Children's Hospital Oakland Research Institute, Oakland CA, USA)

"Nature's Nanoreactor for Fe and O: The Ferritin Stories"

Wednesday 9th, 18.00,

Prof. Ludwig Neyses (Manchester University)

"Novel functions of the sarcolemmal calcium pump in the cardiovascular and urogenital system"

Tuesday 29th, 18.00,

Dr. Erica Balatri (CERM, Florence University)

"Cloning, expression and purification of the transmembrane copper binding domain of Menkes protein"

April 2005

Wednesday 20th, 12.00,

Dr. Stefan Steuernagel (Bruker BioSpin GmbH, Germany)

"Practical Aspects of Solid-State NMR"

May 2005

Thursday 5th, 18.00,

Prof. David Huffman (Department of Chemistry, Western Michigan University, USA)

"Unraveling the mysteries of copper transfer"

Tuesday 24th, 12.30,

Prof. Harald Schwalbe (Johann Wolfgang Goethe-Universitt Frankfurt Zentrum fur Biologische Magnetische Resonanz)

"Structure and Folding-Kinetics of Riboswitch-RNA studied by NMR"

June 2005

Monday 6th, 18.00,

Mr. Jerome Coyne (University of Utah, Salt Lake City, USA)

"Cox4 & Cox19 Proteins Involved in CcO Assembly"

Thursday 9th, 18.00,

Dr Elizabeth Valentine (Department of Biochemistry and Molecular Biophysics Columbia University New York, USA)

"Microsecond-to-millisecond timescale dynamics of the GluR2 glutamate receptor ligand-binding core bound to the agonists AMPA, glutamate and quisqualate"

Thursday 16th, 18.00,

Dr Alejandro J Vila (Facultad de Ciencias Bioquímicas y Farmacéuticas, Universidad Nacional de Rosario, Argentina)

"Promiscuity and diversity in metallo-beta-lactamases: two faces of the same coin?"

Thursday 23th, 18.00,

Dr. Manolis Matzapetakis (Center for Biolron of the Children's Hospital of Oakland Research Institute (CHORI), CA, USA)

"Understanding metalloproteins through denovo designed peptides"

Tuesday 28th, 17.30,

Prof. Joan Selverstone Valentine (University of California, Los Angeles, USA)

"Tales of Dioxygen in Chemistry and Biology"

The Conference will be held at the Aula Magna, Polo Scientifico, Via Bernardini 6, Sesto Fiorentino

July 2005

Tuesday 19th, 12.00,

Prof. Vincenzo Silani (U.O. Neurologia e Laboratorio di Neuroscienze, Università degli Studi di Milano, IRCCS Istituto Auxologico Italiano)

"The clinical duty in the molecular assessment of patients affected by Amyotrophic Lateral Sclerosis"

August 2005

Monday 29th, 18.00,

Prof. Hartmut Oschkinat (Forschungsinstitut fuer Molekulare Pharmakologie Berlin)

"Protein structure determination by solid-state NMR"

September 2005

Friday 2nd, 18.00,

Prof. Dino Moras (Directeur du Laboratoire de Biologie et de Genomique Structurales, France)

"Transcription regulation by Hormone Nuclear Receptors : Structure-Function relationships"

Monday 19th, 18.00,

Prof. Nigel Robinson (University of Newcastle, UK)

"Understanding how cells allocate metals using metal-sensors and metallochaperones"

Wednesday 28th, 18.00,

Dr. Peep Palumaa (Department of Gene Technology, Tallinn University of Technology, ESTONIA)

"Copper chaperones for cytochrome c oxidase. Lessons from mass spectroscopy"

October 2005

Monday 3rd, 18.00,

Prof. Junzo Hirose (Department of Applied Biological Science, Fukuyama, JAPAN)

"Dipeptidyl peptidase III has a new type zinc binding motif of HExxxH....E"

Tuesday 4th, 11.00,

Prof. James A. Wells (University of California San Francisco)

"Drug discovery at signalling interfaces"

Tuesday 18th, 18.00,

Prof. John L. Markley (University of Wisconsin-Madison - USA)

"Approaches to the automation of protein structure determination by NMR spectroscopy"

Monday 24th, 18.00,

Prof. Carlos F. Barbas III (The Scripps Research Institute - La Jolla, USA)

"Polydactyl Zinc Finger Transcription Factors: Developing Strategies to Control and Discover Genes"

December 2005

Friday 2nd, 18.00,

Dr. Ilka Pinz (Maine Medical Center Research Institute, Maine, USA)

"³¹P-NMR spectroscopy in transgenic mouse heart failure models"

Seminars 2004

January 2004

Thursday 22nd, 18.00 pm

Prof. A. Donaire (Instituto de Biología Molecular y Celular, IBMC, Universidad Miguel Hernández, Spain)

"NMR applied to Blue Copper Proteins: a Key to Understand their Electronic Structures and Redox Properties"

Friday 23rd, 12.00 am

Prof. Roberto Bassi (Plant Physiology and Plant Biochemistry Department, University of Verona, Italy)

"Mutation analysis of Chlorophyll/carotenoid photosynthetic light harvesting complexes using recombinant proteins refolded in vitro"

March 2004

Friday 19th, 12.00

Prof. M. Ziche (Molecular Biology Department, University of Siena, Italy)

"Angiogenesis: new therapeutic targets"

April 2004

Monday 15th, 15.00

Prof. McLafferty (Department of Chemistry and Chemical Biology, Cornell University, NY)

"Characterizing Protein Posttranslational Modifications by Top Down Mass Spectrometry"

Friday 16th, 18.00

Prof. P. Rossi Ferrini (Presidente del Comitato Organizzatore dell'Associazione Italiana contro le Leucemie)

"La cellula staminale sorgente e fonte della vita"

Thursday 22nd, 17.30

Dr. Muriel Delepierre (Pasteur Institute, Paris)

"NMR, a tool for biology"

Thursday 22nd, 17.30

Aula Magna, Polo Scientifico dell'Università di Firenze, Sesto Fiorentino

Prof. Ernesto Carafoli (Università di Padova, Italy)

"Calcium signalling: a meeting point for structural and cellular biology"

May 2004

Monday 10th, 12.00

Prof. F. Ann Walker (Department of Biochemistry and Molecular Biophysics, University of Arizona)

"Chimeragenesis of the Fatty Acid Binding Site of Cytochrome P450BM3"

Wednesday 26th, 18.00

Dr. Helena Kovacs (Bruker Biospin AG, Switzerland)

"¹³C-detected biomolecular NMR"

June 2004

Thursday 3rd, 18.00

Dr. Antonio Mazzocca (Harvard Medical School Boston (MA) USA and Dipartimento di Medicina Interna, Universita degli Studi di Firenze)

"Interactions between cancer cells and stromal myofibroblasts in liver metastasis"

Monday 14th, 9.30

Dr. A. Gronenborn (National Institute of Health, Bethesda USA) "Protein-protein interactions sensitivity enhanced IPAP and other stuffs"

Tuesday 15th, 18.00

Professor Kenneth M. Merz, Jr. (Department of Chemistry, The Pennsylvania State University)

"Application of Linear-scaling Quantum Mechanics to Drug Design and Discovery"

Tuesday 22th, 18.00

Dr. Dean L. Pountney (Department of Human Physiology and Centre for Neuroscience, Flinders University, Australia)

"Filamentous and Non-Filamentous Protein Aggregates in Neurodegenerative Disease"

Wednesday 23rd, 18.00

Prof. Sason Shaik (The Institute of Chemistry, The Hebrew University, Jerusalem, Israel)

"Reactivity patterns of cytochrome P450 in oxygen transfer reactions: The protein, the active species and the chameleon"

Wednesday 30th, 12.00

Prof. Lyndon Emsley (Laboratoire de Chimie, Ecole Normale Supérieure de Lyon, France)

"New Techniques in Solid-State NMR: Order, Disorder and Dynamics"

July 2004

Friday 2nd , 12.00

Prof. Bernd Ludwig (Biozentrum der Universität, Frankfurt)

"Cytochrome c oxidase: electron entry and proton translocation pathways"

September 2004

Friday 17th , 18.00

Prof. Omar YAGHI (University of Michigan - Ann Arbor USA)

"Taxonomy of Nets and Grammar for the Design of Metal-organic and Related Framework"

Friday 24th , 18.00

Prof. Chi-Ming CHE (University of Hong Kong)

"Bioinspired Organic Catalysis or New Classes of Cytotoxic Metal Compounds of Ruthenium, Gold and Lanthanide Metals"

October 2004

Tuesday 5th , 17.30

Prof. Robert Huber (Max Planck Institut für Biochemie - Martinsried, Germany)

"Molecular Machines for Protein Degradation"

Aula Magna Via Gilberto Bernardini, 6 - Sesto Fiorentino

Thursday 21th , 18.00

Prof. David Huffman (Department of Chemistry, Western Michigan University, USA)

"Molecular Mechanisms of Copper-Transporting P-type ATPases"

Friday 22th , 18.00

Prof. Dennis Winge (University of Utah, USA)

"Specific copper transfer from the Cox17 metallochaperone to both Sco1 and Cox11 in the assembly of yeast cytochrome c oxidase"

November 2004

Friday 12th , 17.30

Prof. Harry B. Gray (California Institute of Technology - Pasadena (USA))

"Mapping Metalloprotein Folding Landscapes"

Aula Magna Via Gilberto Bernardini, 6 - Sesto Fiorentino

Seminars 2003

January 2003

Thursday 23rd, 5.00 pm

Prof. Nigel J. Robinson (Medical School, University of Newcastle, UK)

"Metal-selective homeostasis: Transport and trafficking"

Friday 24th, 5.00 pm

Prof. Nigel J. Robinson (Medical School, University of Newcastle, UK)

"Metal-selective homeostasis: Sensing and sequestration"

February 2003

Tuesday 25th, 6.00 pm

Prof. Y. Okamoto (Institute for molecular science, Okazaki, Japan)

"Protein folding simulations by generalized ensemble algorithms"

March 2003

Thursday 27st, 6.00 pm

Prof. William L. Duax (Hauptman-Woodward Institute, Buffalo, and SUNY at Buffalo, US)

"Antisense Genes, Codon Bias and the Evolution of the Genetic Code"

June 2003

Friday 13th, 12.00 am

Dr. C. Marchioro (Computational, Analytical & Structural Sciences GSK, Verona, Italy)

"Approaching Mixtures by NMR Spectroscopy"

Wednesday 18th, 18.00 pm

Prof. M. Solioz (Dept. of Clinical Pharmacology, University of Berne, Switzerland)

"Copper and Silver Homeostasis"

July 2003

Tuesday 1st, 6.00 pm

Prof. T.V. O'Halloran, (Northwestern University, Chicago, US)

"New Copper Receptors: Chemical Thermodynamics and Structural Insights into Cellular Physiology"

Thursday 17th, 6.00 pm

Prof. R. Muller, (NMR Laboratory, Department of Organic Chemistry, University of Mons-Hainaut, Belgium)

"Intelligent and targeted contrast agents for imaging"

Monday 21st, 6.00 pm

Prof. Lon J. Wilson, (Department of Chemistry, Rice University, Houston, USA)

"Buckyballs and Medicine: Tiny Weapons with Giant Potential"

Thursday 24th, 5.00 pm

Dr. Tatjana Tudyka, (Affymetrix, Inc)

"Applications of the Genechip microarray technology in gene expression analysis and drug discovery"

October 2003

Wednesday 8th, 9.30 am

Dr. Ronan O'Brian (Micrococal LLC, UK, Resp. Settore Applicazioni) and Dr. Danilo Friscione (Alfatech Spa, Genova)

"New Trends in Microcalorimetry"

December 2003

Tuesday 9th, 6.00 pm

Dr. Wolfgang Bermel (Bruker BioSpin, Rheinstetten, Germany)

"Triple Resonance Experiments: General features of triple resonance experiments and their implementation"

Tuesday 16th, 6.00 pm

Prof. P. Lazzaretti (Department of Chemistry, University of Modena, Italy)

"The approach of theoretical chemistry to molecular magnetic properties"

Seminars 2002

January 2002

Friday 11th, 5.30 pm

R. Casadio (University of Bologna)

"Neural networks"

February 2002

Wednesday 20th, 5.30 pm

Prof. Carlos F.G.C. Geraldes (Dept. de Bioquímica, Faculdade de Ciências e Tecnologia,
Universidade de Coimbra, Portugal)

"Studies of Metal chelates for medical imaging: MRI and gamma scintigraphy"

Wednesday 27th, 12.00 am

Dr. Michael Kraus (Silantes GmbH, Munich, Germany)

"Stable Isotopes labeled biomolecules for NMR"

March 2002

Friday 15th, 3.00 pm

Dr. M. Ubbink (Leiden Institute of Chemistry, Leiden University, The Netherlands)

"Transient Complexes of Redox Proteins Studied by NMR"

Thursday 21st, 3.00 pm

Prof. L. Casella (Dipartimento di Chimica Generale, Università di Pavia, Italy)

"Production and Reactions of Nitric Oxide with Metalloenzymes"

April 2002

Tuesday 2nd, 10.00 am

Prof. Hitoshi Ohtaki (Department of Applied Chemistry, Ritsumeikan University, Japan)

"The Structure of Intermediates of the Metal Substitution Reaction of Porphyrin Complexes by Stopped-Flow EXAFS Method"

Thursday 4th, 4.00 pm

Prof. J.P. Collman (Department of Chemistry, Stanford University, USA)

"Functional analogs of the Dioxygen Reducing site in Cytochrome c Oxidase: the Role of Copper-B"

Friday 19th, 12.00 am

Dr L. Calzolari (Institute for Molecular Biology and Biophysics, ETH, Zürich, Switzerland)

"From Mad Cow Disease to Creutzfeldt-Jacob Disease: how NMR can help."

Tuesday 23rd, 5.30 pm

Prof. Samar Hasnain (Joint Coordinator of NW Structural Genomics Centre, Daresbury Laboratory, Warrington, UK)

"Combining Atomic Resolution Structures and Molecular Biology for Functional Understanding of Metalloproteins"

Friday 26th, 3.00 pm

Dr. Muriel Delelpiere (Institut Pasteur, Paris, France)

"Structural studies on HasA, a heme binding protein"

May 2002

Monday 6th, 11.30 am

Prof. James Penner-Hahn (Dept. of Chemistry, University of Michigan, USA)

"Characterization of 'Spectroscopically Quiet' Metals: Zinc in Biological Systems"

Friday 10th, 5 pm (at *Aula Magna*, Library Building)

Prof. Giulio Alberti (University of Perugia, Italy)

"A marriage between Building Block Chemistry and Nano-Chemistry for decreasing town pollution: general expectations and recent applications to fuel cells for electric cars"

Saturday 11th, 12.00 am

Prof. Harald Schwalbe (University of Frankfurt AM, Germany)

"Dynamics of Watson-Crick-Base pair as probed by NMR"

June 2002

Thursday 20th, 12 am

Dr. Steven Runyon (Department of Structural Biology, Stanford University, Stanford, USA)

"NMR as a Tool to Guide Drug Discovery: NMR Structures of Viral RNA Complexes with Linear and Cyclic Peptides"

July 2002

Friday 5th, 6 pm

Prof. Ann Walker (Chemistry Dept., University of Arizona, Tucson, USA)

"Novel NO-Releasing Heme Proteins (Nitrophorins) from the Saliva of the 'New World' Blood-Sucking Insect, *Rhodnius prolixus*. An Inorganic Chemist's Perspective."

Friday 12th, 5.30 pm

Sung-Hou Kim (Chemistry Dept., University of California, Berkeley, USA)

"Structural genomics of minimal organisms"

Monday 15th, 5.30 pm

Prof. Norbert Mueller (Institute of Chemistry/Organic Chemistry, Johannes Kepler University, Linz, Austria)

"Curie spin relaxation effects in high spin and low spin Fe(III) myoglobins"

Tuesday 16th, 11.30 am

Dr. Pilar Gonzalez-Duarte and Dr. Sílvia Atrian (Departament de Química, Facultat de Ciències, Universitat Autònoma de Barcelona, Spain)

"The structural role of zinc in copper-containing metallothioneins"

August 2002

Thursday 22nd, 11.30 am

Claudio Dalvit (Pharmacia SpA, Italy)

"Novel approaches for performing NMR screening and identifying high-affinity ligands"

October 2002

Tuesday 8th, 3.30 pm

Dr. Giacomo Parigi (University of Florence, Italy)

"Solomon-Bloembergen-Morgan equations for nuclear relaxation: basic calculations"

Monday 14th, 5.00 pm

Prof. Oliver Ohlenschlaeger (Institut fuer Molekulaere Biotechnologie, Jena, Germany)

"NMR Structural Studies on Proteins and Nucleic Acids: Recent Results from Jena"

Tuesday 15th, 2.30 am

Prof. David Fushman (University of Maryland, USA)

"NMR applications to multidomain systems: structure characterization of poly-ubiquitin chains"

Wednesday 23th, 3.00 pm

Prof. Jozef Kowalewski (University of Stockholm, Sweden)

"Carbon-13 relaxation in some small molecules in solution "

Friday 25th, 3.00 pm

Prof. Jozef Kowalewski (University of Stockholm, Sweden)

" NMR in paramagnetic systems in solution "

Monday 28th, 12.00 am

Dr. Paolo Monini (Laboratory of Virology, Istituto Superiore di Sanita', Rome, Italy)

"Virus oncogeni a DNA"

Wednesday 30th, 5.30 pm

Prof. Bernd M. Rode University of Innsbruck, Austria)

"Peptide evolution and the origin of life"

November 2002

Thursday 7th, 9.00 am

Prof.ssa Lucia Banci (CERM, Florence, Italy)

"Genome browsing and protein selection"

Thursday 14th, 9.00 am

Prof.ssa Lucia Banci (CERM, Florence, Italy)

"The structural genomics project on proteins involved in copper homeostasis"

December 2002 Monday 2nd, 12.00 am

Prof. M. Basagni (Prion Diagnostica, Milano)

"TSE: lo stato dell'arte. Uno sguardo alla diagnostica nel campo delle Tse con riguardo al ruolo di nuovi markers: metalli pesanti"

Dott. G. Guzzi (AIRMEB, Associazione Italiana Ricerche Metalli e Biocompatibilita', Milano)

"Distribuzione di metalli nei tessuti cerebrali: un ruolo nei disordini neurodegenerativi?"

Wednesday 4th, 11.30 am

Dr. Rita Grandori (Johannes Kepler University, Linz, Austria)

"Applications of electrospray mass spectrometry to protein conformational studies"

Tuesday 10th, 12.00 am

Prof. K.V.R.Chary (Tata Institute of Fundamental Research, Mumbai, India)

"Structural basis for the sequential Ca²⁺ displacement by lanthanides in a Protozoan calcium binding protein"

Monday 16th, 12.00 am

Prof. Maria Luisa Brandi (Department of Internal Medicine, University of Florence)

"Genetics and Pharmacogenetics of the Estrogen Response"

Tuesday 17th, 12.00 am

Dr. Barbara Ensoli (Istituto Superiore di Sanita', Roma, Italy)

"Anti-angiogenesis and anti-tumor properties of HIV protease inhibitors: a novel therapeutic strategy"

Friday 20th, 5.30 pm

Prof. T.V. O'Halloran (Northwestern University, Chicago, US)

"Copper chaperone for SOD1"

Monday 30th, 12.00 am

Prof. J.S. Valentine (University of California, Los Angeles, US)

"Copper-zinc SOD and ALS"

Seminars 2001

January 2001

Monday 15th, 5 pm

Peter J. Hore (Physical and Theoretical Chemistry Laboratory, Oxford University UK)

"Photo-CIDNP: shedding light on protein structure and folding"

February 2001

Friday 2nd, 5 pm

Luca Varani (now at CERM)

"The 3' end justifies the means"

Tuesday 13th, 5 pm

Tony Wedd (School of Chemistry, University of Melbourne, Australia)

"Poly-Oxo Metal Clusters: Redox Chemistry and NMR Structures in Solution"

Wednesday 28th, 5 pm

Richard Pau (University of Melbourne, Australia)

"Molybdate-Binding Proteins - How to catch an Anion"

May 2001

Wednesday 2nd, 12 am

Miguel Llinas (Dept. of Chemistry, Carnegie Mellon University)

"Structure & Function of Kringle and Collagen-binding F2 Domains: Exploring Protein NMR Without Assignments"

June 2001

Monday 18th, 6 pm

Dr. Erhard Fernholz (Roche Diagnostics GmbH, Penzberg, Germany)

"Challenges and opportunities in cell-free protein expression"

October 2001

Thursday 18th, 5.30 pm

Dr. Gert Folkers (Utrecht University, The Netherlands)

"Structural Genomics: from gene to structure to function; a pipeline for protein production"

Friday 19th, 5.30 pm

Dr. Gert Folkers (Utrecht University, The Netherlands)

"Functional characterization of protein domains using molecular biology and NMR spectroscopy"

November 2001

Thursday 6th, 5.30 pm

Dr. John Ionides

"European macromolecular Structure Databases"

Wednesday 21st, 5.30 pm

Prof. Govil Girjiesh

"NMR studies on intact spermatozoa"

Wednesday 28th, 5.30 pm (at *Aula Magna*, Library Building)

Prof. Daniel Mansuy

"Bioinorganic chemistry of nitric oxide: implications in medicinal chemistry"

Thursday 29th, 5.30 pm

Dr. Kandala Ventaka Ramana Chary

"Amino acid selective unlabeled: a novel tool for studies in protein NMR"

Seminars 2000

November 2000

Monday 27th, 5 pm

Jozef Kowalewski (Physical Chemistry, Stockholm University, Sweden)

"NMRD profiles in paramagnetic systems with zero-field splitting"

December 2000

Friday 1st, 12 am

Matthew Segall (Cavendish Laboratory-TCM, Cambridge, UK)

"First Principle Quantum Mechanical Simulations: Application to Cytochrome P450 and NMR"

Friday 1st, 5 pm

Martin Blackledge (Laboratoire de RMN, Institut de Biologie Structurale, Grenoble, France)

"Novel methods for the determination of biomolecular structure and dynamics using long-range and orientational constraints"

Tuesday 5th, 5 pm

Hans R. Kalbitzer (Institute for Biophysics and Physical Biochemistry, University of Regensburg, Germany)

"Automated resonance assignment of NOESY spectra and its application to the structure determination of Ras-binding domains"

Friday 15th, 2 pm

Jonathan Karn (MRC Laboratory of Molecular Biology, Cambridge, UK)

"Control of HIV transcription"