

**INTERNATIONAL WORKSHOP on
Macromolecular Crystal Growth and Optimisation Methods**
31 October - 3 November 2011
National Centre for Scientific Research "DEMOKRITOS", Athens, GREECE

PROGRAM

MONDAY 31 OCTOBER - MICROELECTRONICS BUILDING NCSR "DEMOKRITOS"

10:00- 10:50	REGISTRATION
10:50-11:00	WELCOME
11:00-11:40	Dr. Irene M. Mavridis, N.C.S.R. "Demokritos", Institute of Physical Chemistry, Athens, Greece: Introduction to crystallography
11:40-12:30	Dr. Kyriacos Petratos, IMBB, Foundation of Research & Technology, Protein Structure & Function division, Heraklion, Greece : Experimental phasing of diffraction data
12:30-13:20	Professor John R. Helliwell, Professor of Structural Chemistry and Chair, School of Chemistry, University of Manchester, UK The lessons of diffraction resolution and the study of crustacyanin
13:20-15:00	LUNCH BREAK
15:00-15:50	Dr. Irene Margiolaki, Department of Biology, University of Patras, Greece: Macromolecular powder diffraction: current status and future prospects
15:50-16:40	Dr. Spyros E. Zographos, National Hellenic Research Foundation, Institute of Organic & Pharmaceutical Chemistry, Athens, Greece: The purification of Proteins: Objectives and strategy, Choice of source, Purification methods (an overview of chromatographic methods), and protein purification examples
16:40-17:30	Professor Naomi Chayen, Professor of Biomedical Sciences, Imperial College London, UK: The joys and challenges of crystallising proteins
19:30	RECEPTION

TUESDAY 1 NOVEMBER - MICROELECTRONICS BUILDING NCSR "DEMOKRITOS"

10:00-10:50	Dr. Sahir Khurshid, Research Associate, Crystallisation Group, Biomolecular Medicine, Imperial College London, United Kingdom: A portfolio of screening and optimisation methods: Crystallisation theory and the use of oils
10:50-11:40	Dr. Roberto Steiner, Principal Investigator, Randall Division of Cell and Molecular Biophysics Group Leader, King's College London, UK: There's more than one way to skin a cat (and to crystallize proteins)
11:40-12:00	COFFEE BREAK
12:00-12:50	Mr. Fabrice Gorrec, Automation Crystallisation Scientist, Structural Studies, MRC Laboratory of Molecular Biology, Cambridge, United Kingdom: Robotics, procedures and innovations for macromolecular crystallisation
12:50-13:40	Dr. Lata Govada, Research Associate, Crystallisation Group, Biomolecular Medicine, Imperial College London, UK: A portfolio of screening and optimisation methods: Heterogeneous nucleation and the separation of nucleation and growth
13:40-15:00	LUNCH BREAK

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15:00	<i>Acropolis & museum visit</i>
WEDNESDAY 2 NOVEMBER - MICROELECTRONICS BUILDING NCSR "DEMOKRITOS"	
10:00-10:50	Dr. Demetres D. Leonidas , Dept. of Biochemistry and Biotechnology, University of Thessaly, Greece: High-throughput structure based drug design
10:50-11:40	Dr. Marcus Swann , CChem, MRSC, Business Manager, Farfield Group Ltd, Manchester, UK: Characterising Biomolecular Assemblies using Dual Polarisation Interferometry
11:40-12:00	<i>COFFEE BREAK</i>
12:00-12:50	Dr. Emmanuel Saridakis , N.C.S.R. "Demokritos", Institute of Physical Chemistry, Athens, Greece. Co-ordinator of the E.U. "TOPCRYST" Project: Dual Polarisation Interferometry as a diagnostic tool for protein crystallisation
12:50-13:15	Dr. George Kontopidis , Head of the Biochemistry Laboratory, Faculty of Veterinary Medicine, University of Thessaly, Greece: Optimise outcome from ligand soaking: consideration and results
13:15-14:30	<i>LUNCH BREAK</i>
15:00-19:30	Crystallisation LABS at Hellenic Pasteur Institute
THURSDAY 3 NOVEMBER - MICROELECTRONICS BUILDING NCSR "DEMOKRITOS"	
10:00-10:50	Professor Martin Caffrey , School of Medicine and School of Biochemistry & Immunology, Trinity College Dublin, Ireland: Crystallizing Membrane Proteins for Structure-Function Studies Using Lipidic Systems
10:50-11:10	Professor Socrates Tzartos , Dept. of Pharmacy, University of Patras, Greece & Head of the Laboratory of Molecular Neurobiology and Immunology, Department of Biochemistry, Hellenic Pasteur Institute. Athens: Membrane proteins: the paradigm of acetyl choline receptor
11:10-11:40	Dr Marios Zouridakis , Laboratory of Molecular Neurobiology and Immunology, Department of Biochemistry, Hellenic Pasteur Institute. Athens: Membrane proteins: the paradigm of acetylcholine receptor; the case of neuronal alpha7 and alpha9 subtypes
11:40-12:00	<i>COFFEE BREAK</i>
12:00-12:50	Professor Elias Eliopoulos , Dept. of Agricultural Biotechnology, Agricultural University of Athens, Athens, Greece: Bioinformatics in the service of in vitro membrane protein assembly and crystallisation
12:50-13:20	Dr. Evangelia D. Chrysina , Research Fellow, Institute of Organic and Pharmaceutical Chemistry, National Hellenic Research Foundation, Athens, Greece: A "spot the difference" puzzle for a new xylanase of GH10 family; from crystallization to 3D structure
13:20-13:40	Dr. James Birtley , N.C.S.R. "Demokritos", Institute of Physical Chemistry, Athens, Greece: Crystal structure of an aminopeptidase important in antigenic peptide processing, ERAP2
13:40-14:30	<i>LUNCH BREAK</i>
14:30- 16:30	DPI LABS at NCSR Demokritos