INTERNATIONAL

WORKSHOP

on

Macromolecular crystal growth and optimisation methods

National Centre for Scientific Research "DEMOKRITOS"
Athens, GREECE

31st October - 3rd November 2011

List of Speakers

Professor Naomi Chayen, *Professor of Biomedical Sciences, Imperial College London, United Kingdom. In charge of the E.U. "TOPCRYST" project for Imperial College*

The joys and challenges of crystallising proteins

Professor John R. Helliwell, *Professor of Structural Chemistry and Chair, School of Chemistry, University of Manchester, United Kingdom*

The lessons of diffraction resolution and the study of crustacyanin

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

Professor Elias Eliopoulos, *Professor in Biochemistry, Dept. of Agricultural Biotechnology, Agricultural University of Athens, Athens, Greece*

Bioinformatics as a tool for crystallisation of membrane proteins

Mr. Fabrice Gorrec, *Automation Crystallisation Scientist, Structural Studies, MRC Laboratory of Molecular Biology, Cambridge, United Kingdom*

Robotics, procedures and innovations for macromolecular crystallisation

Dr. Demetres D. Leonidas, *Associate Professor of* ***Biochemistry, Dept. of Biochemistry and Biotechnology, University of Thessaly, Greece*****.**

High-throughput structure based drug design: crystallisation

Dr. Irene Margiolaki, *Lecturer, Department of Biology, Section of Genetics, Cell Biology and Development, University of Patras, Greece and Visiting Scientist, European Synchrotron Radiation Facility (ESRF), Grenoble, France*

Macromolecular powder diffraction: current status and future prospects

Dr. Irene M. Mavridis, *Senior Researcher, N.C.S.R. "Demokritos", Institute of Physical Chemistry, Athens, Greece. Member of the Steering Committee of the European project "TOPCRYST"*

Introduction to Macromolecular Crystallography

Dr. Kyriacos Petratos, *Principal Researcher, Protein Structure & Function division, IMBB-FoRTH, Heraklion, Greece*

Experimental phasing of diffraction data

Dr. Roberto Steiner, *Principal Investigator, Randall Division of Cell and Molecular Biophysics Group Leader, King's College London, United Kingdom*

There's more than one way to skin a cat (and to crystallize proteins): simple alternative strategies that worked for us (hopefully for you as well)

Dr. Marcus Swann, *CChem, MRSC, Business Manager, Farfield Group Ltd, Manchester, United Kingdom. In charge of the E.U. "TOPCRYST" project for Farfield Group Ltd*

Characterising biomolecular assemblies using Dual Polarisation Interferometry

Dr. Emmanuel Saridakis, *Research Fellow, 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

Professor Socrates Tzartos, *Professor of Immunobiology, 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 nicotinic acetylcholine receptors in muscle and nerve

Dr. Spyros E. Zographos, *Researcher, National Hellenic Research Foundation , Institute of Organic & Pharmaceutical Chemistry, 11635 Athens, Greece*

The purification of proteins: Objectives and strategy, choice of source, purification methods (an overview of chromatographic methods), and protein purification examples

Dr. Lata Govada, *Research Associate, Crystallisation Group, Biomolecular Medicine, Imperial College London, United Kingdom*

A portfolio of screening and optimisation methods: Heterogeneous nucleation and the separation of nucleation and growth

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

Dr. George Kontopidis, *Associate Professor of Biochemistry & Head of the Biochemistry Laboratory, Faculty of Veterinary Medicine, University of Thessaly, Greece*

Optimise outcome from ligand soaking: consideration and results

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

The Workshop will also comprise demonstrations of Dual Polarisation Interferometry, crystallisation setup methods and crystallisation robotics.

Lunch and some dinners will be provided.

Financial support will be available to the attendants.

Limited to 20 participants. Applications to be sent to:

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