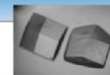




FEBS Advanced Course



Advanced methods in macromolecular crystallization II



Academic and University Center at Nové Hradý, Czech Republic **October 06-13, 2006**

Location of the COURSE

Nové Hradý is located in the south of the Czech Republic.

The Academic and University Center (AUC) resides in a very stylish chateau, which provides many facilities such as three lecture halls, laboratories, apartments and a student dormitory.

Address of AUC: Zámek 136, CZ-37333 Nové Hradý, Czech Republic

Organizing COMMITTEE

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Pavčina Řežáčková, Ph.D.

Dep. Biochemistry, UT Southwestern Medical Center
Texas, USA

Main TOPICS

- Protein expression systems
- Solution properties, phase diagrams
- Protein refolding
- Protein engineering
- Protein modification for crystallization
- Exact kinetics of the hanging drop
- Conventional crystallization methods and their modifications
- Advanced crystallization techniques
- Capillaries grown crystals manipulation and direct crystallography
- Trouble shooting
- Dynamic light scattering
- Advanced light scattering methods
- Glycoprotein crystallization
- Nucleic acid crystallization
- Membrane protein crystallization
- Cryocrystallography

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Important DATES

Date of the course: **October 06-13, 2006**

Deadline for applications: **June 15, 2006**

Speakers and Tutors

Juan Manuel García-Ruiz
Granada, Spain

Rolf Hilgenfeld
Lübeck, Germany

Jeroen Mesters
Lübeck, Germany

José A. Gavira
Granada, Spain

Thomas Klupsch
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Groningen, The Netherlands

Rainer Rudolph
Halle, Germany

Christian Betzel
Hamburg, Germany

Karsten Dierks
Hamburg, Germany

Jiří Brynda
Prague, Czech Republic

Martin Caffrey
Limerick, Ireland

Primary INFORMATION

The course is intended for **undergraduate** (5th year) and **postgraduate students** and **postdocs** with an interest in macromolecular crystallization.

The **crystallization of biological macromolecules** is still poorly understood and, as a consequence, success of the common trial-and-error experiments is not predictable. On the other hand, more rational approaches have been developed in the past few years and prospects for the science of crystallogenesis are in fact good. Many of the new approaches are based on an improved theoretical insight into the processes of nucleation and crystal growth.

Experience shows that a majority of students tends to rather spend many months with trial-and-error experiments than choose the more demanding approaches involving determination of phase diagrams etc. The planned course is designed to help overcome this and to bring over the message of the benefits of more rational approaches to macromolecular crystallization. To achieve this goal, **we have invited a number of prominent experts in the field as teachers and supervisors.**

The course will consist of **theoretical lectures (40%), seminars (10%) and practical work and demonstration (50%)**. For crystallization trials, typical recipes using commercial proteins will be used. In addition, students can bring their own proteins and carry out crystallization trials on these during the course.

A poster section is planned to encourage participants to present their own work.

More INFO and ON-LINE registration:

<http://www.img.cas.cz/igm/cc/>

Main SPONSOR

The **FEBS course** is funded by **Federation of European Biochemical Societies.**

