

# International School on Biological Crystallization

The 'Laboratorio de Estudios Cristalográficos' is pleased to announce the

## 8<sup>th</sup> International School on Biological Crystallization (ISBC2023) Granada, May 21<sup>th</sup> to 26<sup>th</sup>, 2023

The aim of the School is to introduce all participants into the fundamental knowledge about the behaviour of crystallizing solutions and their applications to the field of **biological crystallization**, including **large crystals for neutron diffraction and tiny crystals for XFEL or EM**.

One day will be fully devoted to case studies on the crystallization of **membrane proteins, viruses, large macromolecular complexes, and sample preparation for cryoEM**.

ISBC2023 is intended for postgraduate/postdoctoral students and research scientists from industrial and academic backgrounds

This School is sponsored by the IUCr and the GE3C



# International School on Biological Crystallization

## School Topics

- ▣ Nucleation: Classical and non-classical approaches
- ▣ Crystal growth kinetics and mechanisms
- ▣ Properties of macromolecular solutions (DLS/SAXS)
- ▣ Screening: The search for crystallization conditions
- ▣ Crystallization techniques: Batch, Vapour and Counter Diffusion, MMS, How do they work?
- ▣ Crystallization and diffusion transport: gels, microfluidics and microgravity
- ▣ Crystallization of large crystals for Neutron diffraction
- ▣ In vivo crystallization of tiny crystals for XFEL
- ▣ Serial Crystallography
- ▣ Polymorphism in protein crystals
- ▣ Robotics and crystallization
- ▣ Membrane Protein Crystallization:  
Lipid cubic phase, bicelles and detergents
- ▣ Crystallization of Macromolecular Complexes
- ▣ Characterization by electron microscopy (EM)

## Demonstration Fair

Practical training will be organised in our innovative and lively format.

A number of stands will simultaneously offer short practical sessions carried by specialists at scheduled times.

## Arrange your own Practical Training!

ISBC 2023 is supported by the  
International Union of Crystallography

## Invited Speakers

(This list is provisional, check the updated list on our webpage)

**Bernhard Rupp**, k. k. Hofkristallamt, USA  
**Terese Bergfors**, Uppsala University, Sweden  
**Janet Newman**, UNSW Sydney, Australia  
**Martin Caffrey**, Trinity College Dublin, Ireland  
**Petra Fromme**, Arizona State University, USA  
**Juan Manuel García-Ruiz**, IACT, CSIC-UGR, Spain  
**Jeroen Mesters**, University of Lübeck, Germany  
**Marc Pusey**, iXpressGenes, Huntsville, USA  
**Naoko Mizuno**, NHLBI/NIH, Bethesda, USA  
**José A. Gavira**, IACT, CSIC-UGR, Spain  
**Hudel Luecke**, University of Oslo, Norway  
**Brent Nannenga**, Arizona State University, USA  
**Sergio Martínez**, University of Granada, Spain  
**Ivana Kuta Smatanova**, Univ. of South Bohemia, Czech Republic  
**Filipa Castro**, Universidade do Porto, Portugal  
**Claude Sauter**, IBMC, CNRS, France  
**Christian Betzel**, University of Hamburg, Germany  
**Fermin Otálora**, IACT, CSIC-UGR, Spain  
**Guillermo Calero**, University of Pittsburg, USA  
**Christian Biertümpfel**, NHLBI/NIH, Bethesda, USA  
**Edward H. Snell**, Hauptman-Woodward I., Buffalo, USA  
**May Marsh**, SLS at Paul Scherrer Institut, Swiss  
**José Manuel Martín-García**, IQFR, CSIC, Spain.  
**Jose D. Ng**, University of Alabama in Huntsville, USA  
**Eva Cunha**, University of Oslo, Norway  
**Monica Budayova-Spano**, Université Grenoble Alpes, France  
**Crissy Tarver**, Stanford University, USA  
**Pavlaína Řezáčová**, University of Prague, Czech Republic  
**Lars Redecke**, University of Lübeck, Germany  
**Thomas Peat**, UNSW Sydney, Australia

