

ISBC International Doctoral Summer School 2019. Biological Crystallisation

◦ Página en construcción

GRANADA (SPAIN) MAY 26TH -31ST 2019



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INTERNATIONAL DOCTORAL SUMMER SCHOOLS
CONSEJO SUPERIOR DE INVESTIGACIONES CIENTÍFICAS
UNIVERSIDAD DE GRANADA

Biological Crystallization School (ISBC)
The Laboratory of Crystallographic Studies & EQ organizes two biennial international crystallization schools in Granada (Spain). Both Schools deal with the fundamental principles of crystallization (solution properties, nucleation, crystal growth kinetics and mechanisms, morphology, crystallization techniques, screening), but applied to different fields.

2019 - 31th May 2019
ISBC Granada International School of Biological Crystallization: Crystallization of biomacromolecules, including large crystals for neutron diffraction and tiny crystals for XRD or EM.
isbcgranada.org

May 2020
ISC Granada International School of Crystallization: Pharmaceutical active compounds, foods, agrochemicals, minerals and new materials, including polymorphs, microcrystals and industrial crystallization.
icgranada.org

INTERNATIONAL DOCTORAL SUMMER SCHOOLS
Escuela Internacional de Posgrado
Universidad de Granada
si.ugr.es/summerschools

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The whole series of ISBC and ISC are sponsored by the International Union of Crystallography (IUCr), The Spanish Ministry of Economy, Industry and Competitiveness, The University of Granada, The Specialized Group of Crystallography and Crystal Growth (GE3C) of the Spanish Royal Society of Chemistry and the Excellence Network or Crystallography and Crystallization “Factoria de Cristalización”.

Come to Granada and enjoy learning about Protein Crystallization including Large Crystals, Tiny Crystals, Complexes and Membrane Proteins!!
More than 20 live practical demonstrations on crystal growth techniques!!

Get the most out of it within a friendly atmosphere by interacting with other students and 25 outstanding lecturers!!

▪ Website ISBC 2019

International School on Biological Crystallization

7th International School on Biological Crystallization (ISBC2019) Granada, May 26th to 31th, 2019

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**.

ISBC2019 is intended for postgraduate/postdoctoral students and research scientists from industrial and academic backgrounds

This School is sponsored by the IUCr and the GE3C



<http://isbcgranada.org>

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 2019 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**, CSIRO, Australia
- Martin Caffrey**, Trinity College Dublin, Ireland
- Petra Fromme**, Arizona State University, USA
- Juan Manuel Garcia-Ruiz**, IACT, CSIC-UGR, Spain
- Jeroen Mesters**, University of Lübeck, Germany
- Marc Pusey**, iXpressGenes, Huntsville, USA
- Howard Einspahr**, IUCr Journal Commission, USA
- José A. Gavira**, IACT, CSIC-UGR, Spain
- Hudel Luecke**, University of Oslo, Norway
- Naoko Mizuno**, Max Planck Institute, Germany
- Sergio Martínez**, University of Granada, Spain
- Ivana Kuta Smatanova**, Univ. of South Bohemia, Czech Republic
- Nadine Candoni**, CINam-Marseille, France (tbc)
- Claude Sauter**, IBMC, CNRS, France
- Christian Betzel**, University of Hamburg, Germany
- Fermin Otálora**, IACT, CSIC-UGR, Spain
- Guillermo Calero**, University of Pittsburgh, USA
- Christian Biertümpfel**, Max Planck Institute, Germany
- Edward H. Snell**, Hauptman-Woodward I., Buffalo, USA
- May Marsh**, SLS at Paul Scherrer Institut, Swiss
- José Manuel Martín-García**, Arizona State University, USA
- Lata Govada**, Imperial College, London, UK
- Jose D. Ng**, University of Alabama in Huntsville, USA
- Katsuo Tsukamoto**, Osaka University, Japan
- Monica Budayova-Spano**, Université Grenoble Alpes, France
- Crispy Tarver**, University of Alabama in Huntsville, USA
- Pavlna Řezáčová**, University of Prague, Czech Republic
- Abel Moreno**, Univ. Autónoma de México, México
- Thomas Peat**, CSIRO, Australia

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