

# International School on Biological Crystallization

Granada (SPAIN), October 4<sup>th</sup> – 9<sup>th</sup>, 2026

LABORATORIO DE ESTUDIOS CRISTALOGRAFICOS, IACT-CSIC

*Please be aware that the programme may change*

## Sunday, October 4<sup>th</sup> WELCOME

- 18:00 – 20:00 Registration  
20:00 Welcome Cocktail at *Hotel Luna de Granada*

## Monday, October 5<sup>th</sup> FROM SOLUTION TO CRYSTALS: THEORY AND PRACTICES

- 08:00 – 09:00 Registration  
09:00 – 09:15 Overview of the School J.A.G. & J.M.G-R  
09:15 – 10:00 Protein purification strategies intended for crystallization S. Martínez-R  
10:00 – 10:30 Coffee Break  
10:30 – 11:15 Solubility determination Romain Grossier  
11:15 – 11:45 Preparation of protein samples for crystallization experiments P. Řezáčová  
11:45 – 12:30 Nucleation of Macromolecular Crystals Fermin Otálora  
12:30 – 13:30 From protein solution to crystals: Nature and formation of protein crystals B. Rupp  
13:30 – 15:00 Lunch  
15:00 – 15:45 Nucleation induction methods Simon Kuhn  
15:45 – 16:15 Surface-inducing heterogenous nucleation Daniela Tesekova  
16:15 – 16:45 The effect of flow on crystallization Dominique Maes  
16:45 – 17:15 Protein crystal growth A. Van Driessche  
17:15 – 18:00 Crystallization road maps Jeroen Mester  
18:00 – 18:30 Coffee break  
18:30 – 19:30 Poster Session

## Tuesday, October 6<sup>th</sup> CRYSTALLIZATION TECHNIQUES AND TECHNIQUES TO STUDY CRYSTALLIZATION

- 09:00 – 09:30 Solubility Model to Guide Solvent Selection Michael Lovette <sup>(Merk)</sup>  
09:30 – 10:00 The Use of Microfluidics to Study Crystallization Fundamentals Nadine Candoni  
10:00 – 10:30 Protein Crystallization by capillary Counter-diffusion technique J.A. Gavira  
10:30 – 11:00 Coffee Break  
11:00 – 11:45 Crystallization of Membrane Proteins in Lipid Mesophases M. Caffrey  
11:45 – 12:15 Peptide crystallization Clara Anduix <sup>(JANSSEN)</sup>  
12:15 – 13:00 Drugs formulations Sarah Hudson  
13:00 – 13:30 MMS Patrick Stuard <sup>(Douglas)</sup>  
13:30 – 15:00 Lunch  
15:00 – 15:45 Mechanistic model-based approaches in crystallization process engineering Botond Szilágyi  
15:45 – 16:30 Process monitoring and artificial intelligence tools Cláudia Galinha <sup>(NOVA)</sup>  
16:30 – 17:15 Crystallography in modern drug discovery Alexey Rak <sup>(SANOFY)</sup>  
17:15 – 18:00 The Chemistry of Mushroom Magic (*Why you should not lick toads*) B. Rupp  
18:00 – 18:15 Coffee break  
18:15 – 19:15 Poster Session

22:00

NIGHT GUIDE WALK OF ALBAICÍN & SACROMONTE

### Wednesday, October 7<sup>th</sup> Towards Large scale crystallization approaches

09:00 – 09:30	Best practices to prepare and deliver samples in serial femtosecond crystallography experiments at XFELs	J.M. Martín-G.
09:30 – 10:00	Crystallization prediction: AI+ ML Algorithms to	C. Xiouras (JANSSEN)
10:00 – 10:30	Protein crystallization in micro- and meso-scale devices	F. Castro
10:30 – 11:00	Coffee Break	
11:00 – 11:45	The role of impurities on crystallization	Jerry Heng
11:45 – 12:30	Crystalline formulations in drug delivery	V. Bhatia (Lamarck)
12:30 – 13:30	Using living machinery	L. Redecke
13:30 – 15:00	Lunch	
15:00 – 15:45	Crystallization pilot plant? Continuous crystallization?	Bart Rimez (Secoya)
15:45 – 16:30	Protein crystallization in microgravity conditions	A. Rech (BioOrbit)
16:30 – 17:15	The effect of ohmic heating on protein crystallization	Ricardo Pereira
17:15 – 18:00	Approaches to manipulate molecules/particles in microfluidic devices	Wim De Malsche
18:00 – 18:15	Coffee break	
18:15 – 19:15	Poster Session	

### Thursday, October 8<sup>th</sup> DEMONSTRATION FAIR

09:00 – 10:30	Practical Demonstration “a la carte”
10:30 – 11:00	Coffee Break
11:00 – 13:30	Practical Demonstration “a la carte”
13:30 – 15:00	Lunch
15:00 – 17:15	Practical Demonstration “a la carte”

**20:00 GALA DINNER (CARMEN TBD)**

### Friday, October 9<sup>th</sup> CLOSING LECTURES & STUDENTS PRESENTATIONS

09:30 – 10:15	<b>TBD</b>	J.M. García-Ruíz
10:15 – 11:00	Round Table: Contribution of crystallisation to efficient and sustainable biomanufacturing.	
11:00 – 11:30	Coffee Break	
11:30 – 12:30	Oral Presentation of finalist posters	
12:30 – 13:30	Poster Prizes and Closing of the School	
13:30 – 15:00	Lunch	

**Come to Granada and enjoy learning about**

***Protein Crystallization* towards crystallography and pharma & industrial applications.**

***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 30 outstanding lecturers.***

***Take the opportunity to present and discuss your work and if selected to present it during last day with your new friends!!!***