

International School on Biological Crystallization

Granada (SPAIN), May 26th – 31st, 2019

LABORATORIO DE ESTUDIOS CRISTALOGRAFICOS, IACT (CSIC – UGR)

Sunday, May 26th WELCOME

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

Monday, May 27th FROM SOLUTION TO PROTEIN CRYSTALS

- 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 Preparation of protein samples for crystallization experiments P. Řezáčová
11:15 – 12:00 Physicochemical properties of crystallizing protein solutions B. Rupp
12:00 – 12:45 Nucleation of Macromolecular Crystals J.M. García-Ruiz
12:45 – 13:30 Crystal Growth Kinetics and Mechanisms F. Otálora
13:30 – 15:00 Lunch
15:00 – 15:45 Standard Crystallization Techniques: How do they work? J. Mesters
15:45 – 16:30 Protein Crystallization by capillary Counter-diffusion technique J.A. Gavira
16:30 – 17:15 Rationalizing high throughput, is that possible? J. Newman
17:15 – 18:00 What's this in my drop? T. Bergfors
18:00 – 18:30 Coffee break
18:30 – 19:30 Poster Session

Tuesday, May 28th TINY & LARGE CRYSTALS, MEMBRANE PROTEINS, COMPLEXES, SAXS, EM...

- 09:00 – 09:30 Seeds of Success: An Overview of MMS Technique M. Marsh
09:30 – 10:00 In microchip crystallization & crystallography C. Sauter
10:00 – 10:30 Choosing your crystallisation method for optimal results L. Govada
10:30 – 11:00 Coffee Break
11:00 – 12:00 Femtosecond Crystallography, a New Era in Structural Biology P. Fromme
12:00 – 12:45 Crystallization of Membrane Proteins in Lipid Mesophases M. Caffrey
12:45 – 13:30 Membrane protein crystallization H. Luecke
13:30 – 15:00 Lunch
15:00 – 15:45 Crystallization of Protein-Nucleic Acid Complexes C. Biertümpfel
15:45 – 16:30 Manipulation of Tiny Crystals for Serial Crystallography J.M. Martin-G.
16:30 – 17:15 Electric and magnetic influence on protein crystallization A. Moreno
17:15 – 18:00 The growth of large crystals for neutron diffraction J.D. Ng
18:00 – 18:15 Coffee break
18:15 – 19:15 Poster Session

Wednesday, May 29st TINY & LARGE CRYSTALS, MEMBRANE PROTEINS, COMPLEXES, SAXS, EM...

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| 09:00 – 09:30 | Maximizing Crystallization Screening Results | M. Pusey |
| 09:30 – 10:00 | Optimisation of Crystal Growth for Neutron MX | M. Budayova-Spano |
| 10:00 – 10:30 | The use of Microfluidics for Fundamental Studies | N. Candoni |
| 10:30 – 11:00 | Coffee Break | |
| 11:00 – 11:45 | <i>Analysing, scoring and optimizing in vitro and in vivo Crystallization Conditions for XFEL and serial Diffraction Data Collection</i> | C. Betzel |
| 11:45 – 12:30 | Novel Developments in Structural Biology | G. Calero |
| 12:30 – 13:30 | SAX as a complementary technique in structural biology studies | E. Snell |
| 13:30 – 15:00 | Lunch | |
| 15:00 – 15:45 | Visualization of macromolecular complexes under cryo-EM | N. Mizuno |
| 15:45 – 16:30 | Putting things into protein crystals | T. Peat |
| 16:30 – 17:15 | Crystallization under microgravity conditions | K. Tsukamoto |
| 17:15 – 18:00 | The Symmetry of the Alhambra | J.M. García-Ruíz |
| 18:00 – 18:15 | Coffee break | |
| 18:15 – 19:15 | Poster Session | |
| 22:00 | NIGHT VISIT TO THE ALHAMBRA | |

Thursday, May 30th DEMONSTRATION FAIR

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| 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 – 16:30 | Practical Demonstration “a la carte” |
| 16:30 – 17:00 | Coffee break |
| 17:00 – 17:45 | Practical Demonstration “a la carte” |
| 20:00 | DINNER/FIESTA FLAMENCA |

Friday, May 31st CLOSING LECTURES & STUDENTS PRESENTATIONS

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| 09:15 – 10:15 | Round Table on convergent techniques: Diffraction, XFEL, Micro-ED, SAS, NMR, Cryo-EM and the Future of Protein Crystallization |
| 10:15 – 11:00 | Round Table on Publishing your results with the Journals Editors |
| 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* 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.

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