25 years of Cryoelectron Microscopy in Spain: A tribute to José L. Carrascosa

June 12th

9:30 – 9:55 h  Opening ceremony
Chancellor, Universidad Autónoma de Madrid
President, Consejo Superior de Investigaciones Científicas

Session 1 (Chairman: José M. Valpuesta)

09:55 – 10:45 h  Plenary Lecture:
Joachim Frank (Columbia University. USA)
“Dissection of early and late events in bacterial translation using time-resolved cryo-EM.”

10:45 – 11:00 h  Nicola Abrescia (CIC-Biogune. Bilbao)
“An integrative approach to study the structure and cell biology of viruses”

11:00 – 11:15 h  Jon Agirre (University of York. UK)
“Computational methods for carbohydrate structure determination, validation and analysis”

11:15 – 11:45 h  Coffee Break

11:45 – 12:00 h  Sara Alvira (University of Bristol. UK)
“Capturing the bacterial co-translational translocation machinery”

12:00 – 12:15 h  Ernesto Arias-Palomó (CIB-CSIC. Madrid)
“Mechanistic insights into DNA replication using cryo-EM”

“Automated Alignment of tilt Series of Cryo Electron Tomography data”

12:30 – 12:45 h  Pablo Chacón (IQFR-CSIC. Madrid)
“Integrative Modeling Approaches to Interpret High-Resolution cryo-EM Reconstructions”

12:45 – 13:00 h  Miquel Coll (IBMB-CSIC. Barcelona)
“Using cryo-EM and X-ray crystallography to solve viral portal proteins”

13:00 – 13:15 h  Javier Conesa (ALBA synchrotron. Barcelona)
“3D correlative cryo soft X-ray tomography and hard X-ray fluorescence of breast cancer cells treated with an iridium metallodrug”

“Using Cryo-EM to investigate steps in late bacterial ribosome assembly and the potential roles played by the assembly factors”

13:30 – 14:30  Lunch
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Session 2 (Chairman: José L. Carrascosa)

14:30 – 15:20 h Plenary Lecture:
Wolfgang Baumeister (MPI for Biochemistry. Martinsried. Germany)
“The Molecular Machinery of Protein Degradation: Structural Studies ex situ and in situ”

“Deciphering the molecular architecture of membrane contact sites by cryo-electron tomography”

15:35 – 15:50 h Carlos Fernández Tornero (CIB-CSIC. Madrid)
“Structural studies on RNA polymerase I unveil unique mechanisms in ribosomal DNA transcription”

15:50 – 16:05 h Ignasi Fita (IBMB-CSIC. Barcelona)
“From X-Rays to Subtomogram Averaging and Back: The Adhesión Complex of Human Pathogen Mycoplasma Genitalium”

16:05 – 16:20 h Juan Fontana (University of Leeds. UK)
“Exploring the role of endosomal K+ as a trigger for bunyavirus entry”

16:20 – 16:35 h Beatriz Herguedas (LMB. Cambridge. UK)
“Structural insights into AMPA receptor complexes”

16:35 – 17:05 h Coffee Break

17:05 – 17:20 h Aitor Hierro (CIC-Biogune. Bilbao)
“Endosomal retrieval of cargo via protein scaffolds”

17:20– 17:35 h Daniel Lietha (CIB-CSIC. Madrid)
“Structural basis of membrane associated adhesion signalling”

17:35 – 17:50 h Óscar Llorca (CNIO. Madrid)
“Structure and remodeling of the AAA-ATPase RUVBL1-RUVBL2”

17:50 – 18:05 h Carmen López Iglesias (Maastricht University. Netherlands)
“In situ cryo-EM: our achievements with bacterial secretion systems”

18:05 – 18:20 h Daniel Luque (ISICII. Madrid)
“Rotavirus entry machinery structure”

18:20 – 18:35 h Montserrat Samsó (Virginia Commonwealth University. USA)
“Unveiling the secrets of an ion channel using cryoEM”
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June 13th

Session 3 (Chairman: José R. Castón)

09:30 – 10:20 h  Plenary Lecture: Richard Henderson (LMB. Cambridge. UK) "Trends and challenges in cryoEM”


11:05 – 11:35 h  Coffee Break

11:35 – 11:50 h  Vicente Rubio (IBV-CSIC. Valencia) “Using cryoEM to shed light on a monogenic disorder that has two presentations and two modes of inheritance”

11:50 – 12:05 h  Iban Ubarretxena (Biofisika. UPV/CSIC. Bilbao) “Cryo-EM structure of a DNA polymerase involved in eukaryotic genome stability”

12:05 – 12:20 h  Isabel Usón (IBMB-CSIC. Barcelona) “Phasing microED data with cryoEM maps in ARCIMBOLDO”


12:35 – 12:50 h  Javier Vargas (McGill University. Toronto. Canada) “Computational strategies to process highly heterogeneous cryoEM samples”

12:50 – 13:05 h  José J. Fernández (CNB-CSIC. Madrid) “Consideration of the sample motion in cryoET”

13:05 – 13:20 h  Jaime Martín-Benito (CNB-CSIC. Madrid) “Influenza A transcription and replication mechanisms revealed by cryoEM”

13:20 – 14:30 h  Lunch
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Session 4 (Chairman: José M. Carazo)

14:30 – 15:20 h  Plenary Lecture:  
Alasdair Steven (NIH. Bethesda. USA)  
“Phase Transitions in Cryo-EM and Virus Assembly”

15:20 – 15:35 h  Carmen San Martín (CNB-CSIC. Madrid)  
“A cryoEM look at complex virus assembly: the case of human and non-human adenoviruses”

15:35 – 15:50 h  José R Castón (CNB-CSIC. Madrid)  
“CryoEM at near atomic resolution of viruses: a historical perspective”  

The tribute to Pepe will include some words by:  

Rebeca Bocanegra (IMDEA Nanociencia), Ana Cuervo (CNB-CSIC), Luis Enrique Donate (Wood Green Research Support Services. London), Borja Ibarra (IMDEA Nanociencia), María Ibarra (CNIO), Mariano Esteban (CNB-CSIC), Sergio Marco (Sanofi. France), Eva Nogales (UC Berkeley. USA), Juan Ortín (CNB-CSIC), Cristina Risco (CNB-CSIC), Margarita Salas (CBM-CSIC)

José M. Valpuesta (CNB-CSIC. Madrid)  
“25 years of studies on molecular chaperones”

José M. Carazo (CNB-CSIC. Madrid)  
“Might I talk to Dr. Jose Luis Carrascosa. It is about advising a PhD Thesis”

José L. Carrascosa (CNB-CSIC. Madrid)  
“A day in the life”