



Institut  
d'Estudis  
Catalans



Societat Catalana  
de **BIOLOGIA**



Cell & Tissue  
Research  
In Catalonia

# XXXI JORNADA DE BIOLOGIA MOLECULAR & 3rd CATCAT DAY

*Secció de Biologia Molecular de la Societat Catalana de Biologia  
&  
Cell and Tissue Research in Catalonia (CATCAT)*

9 October 2025  
IEC, Carrer del Carme 47, Barcelona

## PROGRAM

9.00-9.30     *Registration*

9.30     Welcoming and preliminary remarks

9.45     Mechanical Forces Stimulate Golgi Export  
**Felix Campelo (UPF)**

10.30     Short Talk 1: The endoplasmic reticulum connects to the nucleus by  
             constricted junctions that mature after mitosis  
             Helena Bragulat Teixidor (Max Perutz Labs Vienna)

10.45     Short Talk 2: Mechanical force-based control of RNA splicing in  
             muscle cells  
             Andrés Gordo-ortiz (CRG)

11.00     Short Talk 3: Centrosome clustering in cancer cells requires  
             chromosomal microtubule assembly through a TPX2/AURKA – KIFC1  
             complex  
             Jacopo Scrofani (CRG)

11.15     *Coffee Break*

- 11.45 Controllable protein design with language models  
**Noelia Ferruz (CRG)**
- 12.30 Short Talk 4: Exploring the Structural Basis of the Message-Address Concept in Opioid Pharmacology through Cryo-EM and AlphaFold 3  
Alejandro Cruz Saez (UPC)
- 12.45 Short Talk 5: Beyond the Hinge: Exploring the Fab-specific IgA Peptidase of a Unique Gut Microbe  
Juan Sebastián Ramírez Larrota (IBMB-CSIC)
- 13:00 Short Talk 6: Repurposing Bacterial Flagella: Engineering Functional Nanomachines for Biotechnology  
Laia González Pérez (IBMB-CSIC)
- 13.15 *Lunch, coffee & posters*
- 15.00 Lipidomics in Cell Biology: how lipid composition drives cellular function  
**Noemí Jiménez-Rojo (UPV/EHU)**
- 15.45 Short Talk 7: Ultra-dynamic assemblies of glycolytic enzymes by quinary determinants  
Blanca Poquet Fullana (IBMB-CSIC)
- 16.00 Short Talk 8: Autophagy inhibition and nuclear stiffness via lamin A/C overexpression drive divergent CIN biomarker responses in cancer cells  
Mireia Bosch Calvet (UB)
- 16:15 *Break*
- 16.30 *Decoding neuroendocrine cancers: insights into initiation, progression, & therapeutics from human organoid models*  
**Talya Dayton (EMBL Barcelona)**
- 17.15 Short Talk 9: Effects of replication stress on DNA replication dynamics and chromatin accessibility in cancer cells  
Alejandro Pérez-venteo (UB)
- 17.30 Short Talk 10: A microtubule polyglutamylation network signature in cancer  
Ana Arsenijevic (CRG)
- 18.00 *Award of the poster/short talk prizes, final comments, beer time*