

Monday 20th December 2021**Session 1.** Chair: Javier López Ibáñez

- 09:30 **Welcome**, Mario Mellado
- 09:40 **Detection of linkages between biomedical concepts in the scientific literature**. Florencio Pazos
- 10:00 **Lessons learned from a virus: regulation of episomal DNA gene expression**. Urtzi Garaigorta
- 10:20 **Latest insights in adenovirus structure and assembly**. Carmen San Martín
- 10:40 **Nucleoid-associated protein differentially affects chromosomal transformation on *Bacillus subtilis* recombination-deficient cells**. Juan C. Alonso

Break**PhD Students Session 1.** Chair: Leticia Lucero

- 11:30 **Increased GABA levels in postnatal development alter the formation of callosal neurons**. Lorena Bragg.
PI: Marta Nieto
- 11:45 **Biochemical and structural characterization of a complex involved in chaperone-assisted UPS degradation**. Moisés Maestro. PI: José María Valpuesta
- 12:00 **Functional membrane microdomains in bacteria**. Martín Sastre. PI: Daniel López
- 12:15 **Flash talks**

Pablo Yubero
PI: J. Poyatos

Isabel Corraliza
PI: L. Kremer

Ana Cayuela
PI: C.O. Sorzano Sánchez

Joaquín Grau
PI: J.M. Franco

Marcos Peñalver
PIs: F. García Portillo & G. Pucciarelli

Diego Jiménez
PIs: C. Pedrós-Alió & J. Tamames

Tuesday 21st December 2021**Session 4.** Chair: Alicia Calvo-Villamañán

- 09:40 **Molecular mechanisms of protection factors involved in replication-transcription conflicts**. Esther Ortega
- 10:00 **A novel jasmonate biosynthetic pathway in plants**. Andrea Chini
- 10:20 **Improving therapies using iron oxide nanoparticles**. Domingo F Barber
- 10:40 **SynBio tools to engineer complex phenotypes in *P. putida***. Esteban Martínez

Break**PhD Students Session 2.** Chair: Santiago Michavila

- 11:30 **Computational framework for Biofoundry Automatization**. David San León Granado. PI: Juan Nogales
- 11:45 **Diacylglycerol kinase ζ limits IL-15 dependent Tvm generation and acquisition of effector phenotypes**. Miguel Martín. PI: Isabel Mérida
- 12:00 **Cassava and Ugandan cassava brown streak virus, a case of Plant-Pathogen coevolution**. Rafael García López. PI: Adrian Valli

12:15 Flash talks

Irene Varela
PI: M. Nieto

Alba Cabrera
PI: L.A. Fernández

Alberto Fuster
PI: C. Alonso Blanco

Ester Díaz Mora
PI: A. Cuenda

Jonathan Gabriel Piccirillo
PI: J.M. Valpuesta

Alba Orantes
PI: I.M. Antón

Session 2. Chair: Raul López-Fernández

- 14:40 **Genetic and adaptive mechanisms shaping the natural diversity for plant trichomes in *Arabidopsis***. Carlos Alonso Blanco
- 15:00 **Human models to study the immune response against cancer**. Mar Valés
- 15:20 **Genome maintenance by the RecD2/HELB helicase**. Silvia Ayora
- 15:40 **Tools for SARS-CoV-2 diagnosis and treatment**. José María Casasnovas

Session 3. Chair: Beatriz Álvarez

- 16:20 **Beyond methane: the expansion of archaeal hydrocarbon metabolism**. Rafael Laso
- 16:40 **Dangerous Liaisons: COP1 and DET1 regulatory loops in controlling plant development**. Vicente Rubio
- 17:00 **Next generation of cancer immunotherapies based in bacteria-trained lymphocytes**. Esteban Veiga
- 17:20 **Defects in microtubule organizing center polarity: from small brains to inflammation and beyond**. Isabel Mérida

Session 5. Chair: Jorge Cuéllar

- 14:40 **The ISPPu9 insertion sequence: a highly controlled bacterial stowaway**. Fernando Rojo
- 15:00 **To be an oncogene or a tumor suppressor, that is the question**. Inés M. Antón
- 15:20 **Old and new functions of TCP genes in plant morphogenesis**. Pilar Cubas
- 15:40 **Modeling biological complexity with strings of bits**. Luis Seoane

Session 6. Chair: Selena Giménez

- 16:20 **Aspects of innate immune responses to virus infection**. Hugh Reyburn
- 16:40 **The cell wall of intracellular *Salmonella*: a marvellous artwork**. Francisco García del Portillo
- 17:00 **Innate immune response against IBDV: Interaction between MDA5 and TRIM25 in chicken cells**. Dolores Rodríguez
- 17:20 **Lipid nanodiscs, a way to determine the structure of membrane proteins in their natural environment**. Jaime Martín-Benito