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

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

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 **Fash talks**

Irene Varela PI: M. Nieto	**Alberto Fuster** PI: C. Alonso Blanco	**Jonathan Gabriel Piccirillo** PI: J.M. Valpuesta
Alba Cabrera PI: L.A. Fernández	**Ester Díaz Mora** PI: A. Cuenda	**Alba Orantes** PI: I.M. Antón

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