

INSTITUTE FOR
INTEGRATIVE
SYSTEMS BIOLOGY

Building&Expanding BE I²SysBio

Friday 17 Dec 09:00 - 14:00

09:00 Introduction

09:10 Talks#1

10:30 Poster sessions 1&2

12:30 Talks#2

Monday 20 Dec 09:00-14:00


09:00 Talks#3

10:30 Poster sessions 3&4

12:30 Talks#4



17 & 20 December 2021
Morning sessions 9:00-14:00
Online link (and QR code)
<https://go.uv.es/bAOzEC4>

 @i2sysbio
website: i2sysbio.uv.es

i²SysBio is a joint research centre Universitat de València/CSIC
Partners: VLC-Campus, Biopolis SL

FRIDAY 17 DEC

9:00 - 14:00 FIRST SESSION.

9:00-9:10 BE-I2SYSBIO PRESENTATION. EMILIA MATALLANA & SANTIAGO ELENA.

TALKS SESSION 1 - 09:00 - 10:30

09:10 - 09:25 Bioinformática y Computación. Samuel Piquer (Vicente Arnau group).

09:25 - 09:40 Multiomic integration and Systems Biology. Ana Conesa.

09:40 - 09:55 Insights into the role of Insulin-like peptides in the aphid seasonal response. Paolo Cuti (David Martínez group).

09:55 - 10:10 Of cockroaches and symbionts: characterization of the dual symbiotic system in *Blattella germanica*. Rosario Gil (Andrés Moya group).

10:10 - 10:25 De quo nos facere et quid vis facere. Javier Buceta.

Moderator: Carla Rubio-Villena.

POSTERS SESSION 1 & 2 AND COFFEE BREAK

The poster activity will be held (posters can be hanged) without a scheduled Q&A session to avoid crowds. Due to the current health situation we are not going to serve any beverages during the session.

Poster presentations at the 2nd floor:

P01- Teoría, Bioinformática y Computación. Vicente Arnau.

P02- Tools for transforming multiomic data into disease models. Pedro Salguero (Ana Conesa group).

P03- Novel bioinformatic tools to assess the functional impact of alternative isoform usage. Fran Pardo Palacios y Angeles Arzalluz (Ana Conesa group).

P04- How to help *Bartonella quintana* grow more and better... and what for. Emilio Garrote Sánchez, Rosario Gil, Amparo Latorre and Andrés Moya.

Poster presentations at the 3rd floor:

P05- The E-MUSE Project: Complex microbial Ecosystems MULTIScale modElling: mechanistic and data driven approaches integration. Hamza Faquir (Irene Otero-Muras group).

P06- Pangenome diversity in intracellular and pathogenic bacteria. Carlos Valiente Mullor. (Fernando Gonzalez group).

P07- The spectrum of infection of phages against *K.pneumoniae* is highly variable being the bacterial capsule their main target. Beatriz Beamud Aranguren.(Fernando Gonzalez group).

TALKS SESSION 2 - 12:30 - 13:30

12:30 - 12:45 Computational Synthetic Biology Group: Research lines and projects. Irene Otero-Muras.

12:45 - 13:00 Re-engineering *E. coli* to play board games by reinforcement learning. Alfonso Jaramillo.

13:00 - 13:15 The Virus Experimental Evolution Lab. Rafael Sanjuan.

13:15 - 13:30 Molecular and genomic epidemiology and evolution of pathogenic bacteria. Marta Pla y Neris García (Fernando Gonzalez).

Moderator: Consuelo Escrivá López.

MONDAY 20 DEC

9:00 A 14:00 SECOND SESSION.

TALKS SESSION 3 - 09:00 - 10:30

- 09:05 - 09:20 RNA viruses: the good, the bad, and the ugly. Ron Geller group *
- 09:20 - 09:35 Genome-wide exploration of plant transcription factor binding sites using DAP-seq and integration in omics visualization platforms. Luis Orduña (Tomás Matus group).
- 09:35 - 09:50 ¿A qué nos dedicamos en el grupo EvolSysVir? Santiago Elena.
- 09:50 - 10:05 Non-coding RNAs: New players in plant-environment cross talk. Joan Marquez Molins (Gustavo Gomez group).
- 10:05 - 10:20 Investigating the role of pathogen diversity in the most deadliest epidemics: COVID19 and Tuberculosis. Mireia Coscolla.
- Moderator: Cristina Fernandez Fernandez.

POSTERS SESSION 3 & 4 AND COFFEE BREAK

The poster activity will be held (posters can be hanged) without a scheduled Q&A session to avoid crowds. Due to the current health situation we are not going to serve any beverages during the session.

Poster presentations at the 2nd floor:

- P08- RNA viruses: the good, the bad, and the ugly. Ron Geller group*
- P09- Interaction between developmental stage and viral infection susceptibility. Izan Melero y Victoria García (Santiago F. Elena group).
- P10- Computational Biology in EvolSysVir lab. Juan C. Muñoz, M^a José Olmo y Esmeralda García (Santiago F. Elena group).
- P11- Antigenic Variation through genomic analysis in Mycobacterium tuberculosis. Paula Ruiz (Mireia Coscolla group).

Poster presentations at the 3rd floor:

- P12- Life in extreme semi-artificial and artificial environments. Leila Satari Faghihi (Manuel Porcar group).
- P13- Towards a phage therapy against multi-drug resistant *Klebsiella pneumoniae*. Robby Concha-Eloko (Pilar Domingo-Calap and Rafael Sanjuan group).
- P14-VLC Phage Hunters. Mireia Bernabéu y Amanda Martínez (Pilar Domingo-Calap group).
- P15- Yeast Peroxiredoxin Tsa1: a key protein in carbohydrates metabolism and protein biosynthesis. Cecilia Picazo y Víctor Garrigós (Emilia Matallana group).
- P16- Reconstruction and analysis of genomic scale metabolic models of industrial *Escherichia coli* strains. Patricia Álvarez, Paola Corbín, Mario Ruiz, Juli Peretó, Marta Tortajada.

*Ron Geller group: Beatriz Álvarez-Rodríguez, Clara Francés Gómez, Alicia Rodríguez Moreno, Luciana Rusu, Beatriz Sanchez Sendra, João Zulaica, Cristina Vidal Verdu.

TALKS SESSION 4- 12:30 - 14:00

- 12:30 - 12:45 Exploring the adaptive mechanisms in microbes: from computational methods to experimental evolution. Christina Toft.
- 12:45 - 13:00 Bioprospecting unusual environments. Alba Iglesias (Manuel Porcar group).
- 13:00 - 13:15 One year at the EnBiVir lab. Pilar Domingo-Calap.
- 13:15 - 13:30 Understanding the mechanism of action of probiotic bacteria: A comprehensive bioinformatics and in vitro approach. Paola Corbín Agustí (Jose Luis García group).
- 13:30 - 13:45 Stress response and nutrient signaling in wine yeasts. Agustín Aranda (Emilia Matallana group)
- Moderator: Brayan Grau Argente.

VOTING: A box will be placed on the entrance to cast the vote.