

XXVII CNB SCIENTIFIC WORKSHOP

Monday 16th December 2019

Session 1, Chair: Fernando Rojo

10:00 **Lluís Montoliu**. Functional genomics in non-coding regulatory regions facilitated by CRISPR tools

10:20 **Hugh Reyburn**. Lessons from natural immunity

10:40 **Antonio Leyva**. Strategies to understand arsenic perception in plants

11:00 **Víctor de Lorenzo**. Bioremediation at a global scale: from the test tube to planet Earth

11:20-12:15 COFFEE BREAK AND POSTER SESSION I

PhD Students Session I, Chair: Moisés Maestro

12:15 **Teresa Bueno**. Tyrosine hydroxylase: structure and functional implications. (PI: José María Valpuesta)

12:30 **Pablo Laborda**. Novel inducers of the expression of multidrug efflux pumps that trigger *Pseudomonas aeruginosa* transient antibiotic resistance. (PI: José Luis Martínez)

12:45 **Carmen Campos**. Extracellular vesicles as new tools for liquid biopsy in cancer. (PI: Mar Valés-Gómez)

13:00-14:45 BREAK

Session 2, Chair: Hugh Reyburn

14:45 **Saúl Ares**. Control of organ size precision in the *Drosophila* eye

15:05 **José Ruiz Castón**. Three-dimensional cryo-EM of viral nanomachines at atomic resolution

15:25 **Marta Nieto**. How the brain changes its mind

15:45 **Jesús Blázquez**. Specificity and mutagenesis bias of the mycobacterial alternative mismatch repair

16:05-16:15 BREAK

SESSION 3, Chair: Juan Carlos Alonso

16:15 **José Manuel Franco**. Identification of target genes of transcription factors in plants. Determinant factors in protein-DNA recognition beyond DNA sequence

16:35 **Jorge Cuellar**. High resolution Cryo-EM of the eukaryotic chaperonin CCT unravels a novel folding mechanism

16:55 **Carlos Martínez**. Stem cells: compromise and commitment in aging

17:15 **David Rodríguez**. Cyborgization program of Systems Biology Department @CNB

Tuesday 17th December 2019

Session 4, Chair: Juan José Sanz

10:00 **Fernando Rojo**. Regulation of *Pseudomonas* physiology by small RNAs

10:20 **Enrique Rojo**. Unraveling plant vacuolar trafficking through forward genetics, a recipe for surprises

10:40 **Susanna Manrubia**. Degeneration, modularity and the origin of molecular function

11:00 **José Requejo**. Membrane-protein interaction. A quantitative view through the microscope lens

11:20-12:15 COFFEE BREAK AND POSTER SESSION II

PhD Students Session II, Chair: Lorena Bragg

12:15 **Jesús Osuna**. Bacterial trained CD4 T cells drive CD8 responses through metabolism. (PI: Esteban Veiga)

12:30 **Elena Velázquez**. Group II introns for the delivery of synthetic barcodes as a version control system of bacterial strains. (PI: Víctor de Lorenzo)

12:45 **Bran López Luengo**. The role of oxylipins in controlling plant immunity. (PI: Carmen Castresana)

13:00-14:45 BREAK

Session 5, Chair: Antonio Leyva

14:45 **Francisco José Iborra**. Single cell metabolic variability in cancer

15:05 **Luis Ángel Fernández**. Amazing stories of nanobody libraries and synthetic bacteria delivering a protein payload on a target cell

15:25 **Cristina Risco**. Imaging Viral Replication Factories in Cells

15:45 **Antonio Bernad**. Adult cardiac repair capacity

16:05-16:15 BREAK

Session 6, Chair: Saúl Ares

16:15 **Carlos Ardavín**. Response of peritoneal macrophages to bacterial infection

16:35 **José Francisco Rodríguez**. Molecular bases underlying the establishment of IBDV persistent infections

16:55 **Silvia Ayora**. The replication–recombination connection: insights from bacteria

17:15 **Salomé Prat**. Thermosensory role of COP1 as revealed by mathematical modelling

WORKSHOP