Fungal genomics: urgent needs, challenges and opportunities

16-18th December 2024

Fungi play crucial roles in ecosystems, from decomposing organic matter to forming symbiotic relationships with plants. Nevertheless, our knowledge of fungal biology and evolution remains incomplete. Genomics has opened new frontiers in fungal research and can facilitate a greater understanding of fungal evolution and ecology. A consortium of researchers with expertise in different fields of fungal genomics will be in attendance at the workshop.

The aim of this workshop is to establish a working team connecting the European leading groups that will actively collaborate in fungal genomics. During the workshop urgent questions about fungi to be solved with genomic tools and different topics on fungal genomics will be discussed in order to prepare a synthesis review paper. This will include an examination of the difficulties encountered, with the objective of establishing working protocols to be applied to various groups of fungi and the discussion of future perspectives, which will help develop pioneering research.

Two general talks will be offered to members of the IICG-URJC:

- 16 December 2024. Dr. Garima Singh. From chemical chaos to genomic clarity: Cracking lichen biosynthetic Code.

- 17 December 2024. Dr. Toni Gabaldón. Non-vertical evolution in fungi: how common and how relevant?

These open talks will permit to extend the network to other members of IICG. Should a member of IICG request it, one-to-one meetings will be convened with the participants for the purpose of discussing scientific topics.

IICG participants: Dr. Raquel Pino Bodas, Dr. Ana Millanes, Dr. Ibai Olariaga, Dr. María Prieto, Dr. Ana García Muñoz, Dr. Sandra Freire, Rodrigo Márquez

Invited participants: Dr. Toni Gabaldón (Barcelona Supercomputing Center), Dr. Philipp Resl (University of Graz), Dr. Anna Rosling (University of Uppsala), Dr. Garima Singh (University of Padua), Dr. Silke Wetz (University of Munich), Dr. Jaume Pellicer (IBB-CSIC), Dr. Fernando Fernández Mendoza (Institute for Biomedical Informatics), Dr. Francis Martin (INRAE France), Dr. Sergio Pérez Ortega (RJB-CSIC)