Identification of novel molecular targets in drug-resistant fungi

Ignacio García Llorente Oslo University Hospital

Challenge:

The clinical incidence of drug-resistant fungal infections is increasing rapidly. With only very few classes of antifungals currently available, there is an urgent need for development of new drugs.

Pathogenic fungi gain resistances to antifungals as a consequence of spontaneously arising mutations that are selected in the presence of the drug. However, it is known that the acquisition of these mutations alters heavily the cellular homeostasis. To cope with these alterations, the fungal cells activate compensatory mechanisms in order to survive. The identification of these mechanisms will provide information about new molecular targets to treat drug-resistant fungi.

Goal:

The goal of this project is to find the genes that support the viability of fungi resistant to fluconazole, the most common antifungal used in the clinic.