



Simposio Internacional / *International Symposium:*

Siguiendo el camino de Alberto Sols: homenaje en el centenario de su nacimiento

In the footsteps of Alberto Sols: a homage on the centennial of his birth

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CV

FRANCISCA RÁNDEZ-GIL

Francisca Rández-Gil obtained her degree in Biology Science (major Biochemistry) at the Valencia University (Spain) in 1990 and a PhD in Sciences at the same University in 1995. She then went as a Postdoctoral Fellow to the Goethe University, Frankfurt am Main (Germany) at the Dept of of Molecular Genetics and Cellular Microbiology (Prof. KD. Entian). At the end of 1997 she returned to the Biochemistry Department at the Valencia University with Prof Francisco Estruch until she obtained a full position as Scientist at the CSIC in the IATA Institute in 2000. I was as visiting researcher at Institute for Cell and Molecular Biosciences, University of Newcastle, in summer 2007 and at Department of Molecular Genetics and Microbiology at Stony Brook University of New York, since August 2016.

Info expertise and Interest:

A major requirement for yeast strain improvement concerns the stress tolerance and adaptability of cells to environmental stresses imparted by industrial applications. Yeasts rarely encounter ideal physiological conditions during their industrial life span, and therefore, their ability to adapt to changing conditions, will determine its usefulness and applicability. I have focused my research activities to decipher the stress adaptation mechanisms in *S. cerevisiae*. We use different approaches to better understand the genetic regulatory networks that control the cold perception and signaling during downshifts in temperature. The major goal is therefore to unravel the molecular signaling processes that determine stress tolerance. Thus, I am particularly interested in isolating new industrial strains with better performance in biotechnological applications. Since *S. cerevisiae* is also a well-known eukaryotic model system, my studies also aim a deep characterization of genes and signaling pathways involved in and/or leading to human diseases. Current knowledge in our lab suggests that certain lipids play an important role in the perception and transmission of stress signals, including low temperature, and that lipid homeostasis represents a stress adaptation mechanism.