



Simposio Internacional: **Las levaduras como bancos de prueba en las Ciencias de la Vida**

*International Symposium: Yeasts as versatile testbeds for the Life Sciences*

**Madrid, 17 y 18 de octubre de 2016**

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**CV**

## **NICOLA ZAMBONI**

Nicola Zamboni earned his PhD in Biotechnology in the group of Jay Bailey at ETH Zurich with a thesis on metabolic engineering and  $^{13}\text{C}$  metabolic flux analysis. In 2004 he moved as a postdoctoral fellow to the Stanford Genome Technology Center, where he developed and applied metabolomics-based approaches for unraveling metabolic changes in eukaryotic cells. Since late 2005, he's a group leader and independent PI at the Institute of Molecular Systems Biology of ETH Zurich.

His lab focuses on the development of mass spectrometry and computational methods to investigate cellular metabolism from bacteria to human cells in a variety of questions of systems biology, metabolic engineering, drug development against pathogens or cancer, aging, immunology, toxicology, cell differentiation, nutrition, evolution, etc.

The lab researches novel tools and techniques to assess both the state and activity of metabolic networks. In particular, they strive to develop generally applicable approaches that can cope with technically difficult systems such as mammalian cells, complex environments, dynamic systems, and heterogeneous populations. The group pursues a primarily data-driven approach largely based on mass spectrometry, i.e. metabolomics and tracer studies with stable isotopes. These methods are integrated with mathematical modelling to support workflow management, data mining, and interpretation.