

IBEC (Institute for Bioengineering of Catalonia) is an interdisciplinary research center focused on Bioengineering and Nanomedicine based in Barcelona. IBEC's **mission** is to develop international high quality interdisciplinary research that, while creating knowledge, contributes to making a better quality of life, improving health and creating wealth. A close link with key universities, reference hospitals and corporations, are assets that facilitate achieving the mission.

IBEC was founded in 2005 by the Generalitat de Catalunya, the University of Barcelona (UB) and the Polytechnic University of Catalonia (UPC).

IBEC is located within the **Barcelona Science Park**, with premises of 2.500 square meters, 16 research groups and a team of researchers and support services of 250 people from 20 different countries. www.ibecbarcelona.eu



Postdoc Position in Data Processing for Chemical Instrumentation. (Ref. JDC-SM)

The **Signal and Information Processing for Sensing Systems** group at the **Institute for Bioengineering of Catalonia (IBEC)** is looking for **postdoctoral candidates** to apply for the **2015 calls** of the Spanish Ministry of Economy and Competitiveness **Juan de la Cierva**.

Tasks and responsibilities:

- Development of data processing workflows for the analysis of Instrumental Data (Spectrometries).
- Research on methods to improve analytical robustness.
- Analysis of biomedical and food related datasets.
- Research on signal processing for multisensory systems.

Requirements for candidates:

- PhD Degree in Physics, Chemistry or Engineering.
- PhD in Chemo metrics, Bioinformatics or Data Processing for Multisensors systems.
- Self-critical, capacity to learn and bring knowledge.
- High level of English (Spanish and/or Catalan will be a value).
- High motivation and ability to be involved in an international multidisciplinary team.
- Excellent team working and communication skills.

Selected references:

- Fonollosa, J., Fernández, L., Huerta, R., Gutiérrez-Gálvez, A., & Marco, S. (2013). Temperature optimization of metal oxide sensor arrays using mutual information. *Sensors and Actuators B: Chemical*, 187, 331-339.
- Marco, S., & Gutiérrez-Gálvez, A. (2012). Signal and data processing for machine olfaction and chemical sensing: a review. *Sensors Journal, IEEE*, 12(11), 3189-3214.
- Padilla, M., Perera, A., Montoliu, I., Chaudry, A., Persaud, K., & Marco, S. (2010). Drift compensation of gas sensor array data by orthogonal signal correction. *Chemometrics and Intelligent Laboratory Systems*, 100(1), 28-35.