Preface

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Dear Associated Editors, Dear colleagues and Dear friends,

I am proud to announce the launch of the second issue of the Journal JIOMICS corresponding to 2013.

In this issue Ge et al. have written a nice review dealing with environmental Omics, an emerging scientific field that links the OMICS areas with the environment. They point out that OMICS breakthroughs are empowering the fields of environmental toxicology, chemical toxicity characterization, and health risk assessment. It is expected that future environmental OMICS will focus more on real environmental issues and challenges such as the characterization of chemical mixture toxicity, the identification of environmental and health biomarkers, and the development of innovative environmental OMICS approaches and assays. García -Sevillano et al. present a step forward in her career working with little mammals as (bio)indicators of pollution. In this case they have characterized the biological response to metals in liver, brain, kidneys, lungs and plasma of the free-living mouse *Mus spretus* in polluted areas located in Doñana National Park (southwest Spain) and the surroundings, mainly affected by agriculture, mining and industry activities. Very interesting results are presented relating metals and proteins in this organism. Colgrave et al. publish an article about profiling of the membrane compartment of bovine testis cell populations. The authors describe that the proteomic profiles generated in the published work support and complement transcriptomics studies and reinforce the potential of proteomics in identifying and characterising the protein effectors of self-renewal and/or differentiation in stem cells. Allmer shows us how to the C-Terminal Amino Acid of a Peptide from MS/MS Data is determined using new software. As 90% of protein terminal peptides may not end with either arginine or lysine and may thus contain any of the other amino acids, an algorithm is presented which predicts the c-terminal amino acid to be arginine, lysine or any other. Halouska et al. show us, which are the best protocols for the NMR Analysis of Bacterial Metabolomes, considering factors as collection, handling, processing and analysis of metabolomics data. Gonçalves et al. give a new perspective on the expansion of the resistance to antibiotics in bacteria present in animals, in this case belonging to a captive program This study showed specimens of Iberian lynx acting as reservoirs of resistance genes. The authors highlight that in future (re)-introductions they could spread resistant bacteria throughout the environment. Mangapiane et al. explain us through an elegant work entailing an integrated proteomic and physiological approach, the adhesion mechanism of the probiotic *Lactobacillus reuteri* Lb2 BM DSM 16143 concluding that that the moonlighting proteome of this lactobacillus can contribute to adhesion processes.

Radhouani et al. present an interesting work related to the changes in the proteome of *Escherichia coli* stressed by antibiotics. The comparison of stressed vs non-stressed bacteria proteome revealed that the abundance of numerous protein species changed in the strain stressed by CTX compared to the non-stressed wild-type strain. Baudin et al. in an interesting work address the morphogenic changes in endothelial cells from human umbilical vein induced by artificial angiogenesis concluding that phorbol esters modify a number of proteins involved in multiple and intricate pathways for promoting a phenotype ensuring cell survival and cell migration for new vessels formation. Wang-Fat et al. use protein/peptide profiles to identify cyano-bacterial species. An interesting work related to environmental OMICS. The authors concluded that through this method the fast identification of harmful cyanobacteria is possible.

As you have read above, this issue brings an excellent number of manuscripts, providing a level of excellence to JIOMICS. I would like to kindly acknowledge all authors for their excellent work and for trust in JIOMICS, disseminating their research through this journal.

I take this opportunity to wish you Merry Christmas and a Happy New Year 2014 full of Success.

Yours truly,

On behalf of the Editors-in-Chief,

José-Luis Capelo-Martínez

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