UNIVERSIDAD COMPLUTENSE MADRID

Facultad de Informática

ANUNCIO DE CONFERENCIA

POSGRADO

Bioinformática aplicada al estudio del control de la expresión de genes en el cerebro humano

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Sala de Grados - Lunes 3 de Abril de 2017 - 16:00

Entrada libre hasta completar el aforo

Resumen:

UKBEC (United Kingdom Brain Expression Consortium) has the aim of studying the mechanisms of gene expression regulation in human brain. For that, it works on the creation of regulation models based on (1) expression quantitative trait loci, (2) allele specific expression and (3) co-expression networks. During the first data release from the consortium, braineac.org was created to facilitate sharing results with the research community. Braineac is a database of gene expression and its regulation for 10 brain regions based on samples collected by the Medical Research Council (MRC) Sudden Death Brain and Tissue Bank, Edinburgh, UK from 134 neuro-pathologically normal individuals. Gene expression profiling were based on Affymetrix Human Exon 1.0 ST Arrays. Genotyping were performed with Illumina Infinium Omni1-Quad BeadChip and on Immunochip. We will introduce this resource, currently hosted at Universidad de Murcia, and explain how it can help researchers working on brain diseases. On a second part of the talk, we will focus on the creation of the second release of the Braineac resource, based on RNA-seq technology that allows a genome-wide study of regulation mechanisms.

Sobre Juan Botía Blaya:

Juan A. Botía is Profesor Titular in Universidad de Murcia, Spain. Currently, he enjoys a a research stay as Invited Researcher at Middlesex University, London. His research areas are Machine Learning and Agents and Multi-agent systems. He developed a general framework for meta-learning in this Ph.D. dissertation. He has focused his research to the application of Artificial Intelligence techniques to real world engineering problems. He has applied a number of intelligent techniques (e.g. Neural Networks, Decision Rule Learning, Hidden Markov models, Genetic Algorithms, Fuzzy and Neuro-fuzzy Systems) to the following domains: agriculture, robotics, entertainment, TV broadcasting, telecommunications, home care of elderly people and intelligent buildings. Regarding agents and multi-agent systems, he is centered on the simulation of large agent societies and its application to different issues as human

behavior simulation. He has authored and co-authored more than a hundred publications including international journals with high impact, conferences, books and book chapters.