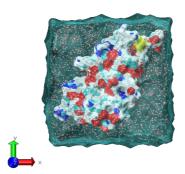




Centro Nacional de Biotecnología

## **Analysis of Macromolecular Structures**



This is to certify that Marta Martínez González has attended and satisfactorily completed the International Course on Analysis of Macromolecular Structures, organized at *Centro Nacional de Biotecnología, Consejo Superior de Investigaciones Científicas (CNB/CSIC)* from June, 21<sup>st</sup> to July, 2<sup>nd</sup> 2010, sponsored by CYTED (Programa Iberoamericano de Ciencia y Tecnología para el Desarrollo) through the FreeBIT (Free BioInformatics Tools) network, EMBnet (European Molecular Biology Network) and CNB/CSIC.

This is a full-day, two week intensive theoretical-practical course with a duration of **70 lecturing hours** that provided a broad coverage of various aspects of macromolecular structure analysis:

- In-depth Analysis of Protein Structures using STING (Goran Nešić (Neshich), PhD, from Embrapa Informática Agropecuária and EMBnet/Brazil
- Pharmacogenomics (Allan Orozco, PhD) from Instituto Nacional de Bioinformática, Spain and EMBnet/Costa Rica)
- X-Ray Crystallography (José Casasnovas, PhD and Cesar Santiago, MSc) from the Department of Macromolecular Structure and Service of X-Ray Crystallography, CNB/CSIC, Spain
- Protein Structure prediction, from secondary to homology modeling and threading technologies (Juan Carlos Sánchez, MSc from Florencio Pazos, PhD group of Computational Systems Biology, CNB/CSIC)
- Molecular Dynamics, Docking and 3D-QSAR, Quantum Dynamics (José R. Valverde, PhD, MD, Scientific Computing Service, CNB/CSI and EMBnet/Spain).

José Ramón Valverde Carrillo

Head of Scientific Computing Service, EMBnet/CNB

CNB/CSIC

Madrid, July 2<sup>nd</sup>, 2010

c/ Darwin, 3 Campus Universidad Autónoma de Madrid Cantoblanco 28049 MADRID TEL.: 91 5854500 C