

Meeting of the Spanish Systems Biology Network (REBS): From genomes to *In silico* and back.

PROGRAMME

Plenary lectures, oral presentations as well as the session of the Spanish's Systems Biology network will be allocated as follows. Posters will be allocated early Friday until late afternoon.

Thursday, November 15th 2007

17.00-20.00 Reception

17.40-18.00 Meeting Welcome

18.00-18.45 Plenary Lecture

Prof. M. Reuss. *University of Stuttgart (Stuttgart, Germany).*

“Marrying diverse partners – a mixed complementary approach for integrating bottom-up and top-down methods in systems biology”

18.45-19.30 Plenary Lecture

Prof. N. Lindley. *Laboratoire Biotechnologie-Bioprocédés, INSA (Toulouse, France).*

“Conserved regulatory networks coupling glycolysis to desirable and non-desirable characteristics of gram+ bacteria”.

20.30 Meeting Dinner

Friday, November 16th 2007

8.30-11.20 Systems Biology: Fundamentals and tools

8.30-8.50-Albert Sorribas. *Grup de Bioestadística i Biomatemàtica, Departament de Ciències Mèdiques Bàsiques. Institut de Recerca Biomèdica de Lleida (IRBLLEIDA), Universitat de Lleida.Spain.*

“Identifying design and operational principles in metabolic systems: advantages and limitations of alternative mathematical formalisms”

8.50-9.10-Francisco Llaneras and Jesús Picó. *Institute of Industrial Computing and Control, Technical University of Valencia. Valencia. Spain.*

“Estimation over time of metabolic fluxes in scenarios with uncertain and/or insufficient measurements”

9.10-9.30- Horacio E. Pérez Sánchez. *Forschungszentrum Karlsruhe GmbH. Institut für Nanotechnologie (INT) . Karlsruhe (Germany)*

“High throughput in-silico screening against flexible protein receptors”

9.30-9.50- Federico Morán. *Grupo de Biofísica. Dept. de Bioquímica y Biología Molecular I. Fac. Químicas, Universidad Complutense Madrid. Madrid, Spain.*

“Extension of the stoichiometric analysis to self-maintaining metabolisms”

9.50-10.10- Eva Balsa-Canto. *Process Engineering Group. Spanish Council for Scientific Research, IIM-CSIC. Spain.*

“An optimal identification procedure for model development in Systems Biology: Applications in Cell Signalling”

10.10-10.40 Coffee break

10.40-11.00-Eduardo Pareja. *Bioinformatics Unit, Era7 Information Technologies SLU, BIC-Granada Parque Tecnológico Ciencias de la Salud, Granada, Spain.*

“KEYPROTEINS: A database of sequences of mammalian transmembrane proteins”

11.00-11.20- [Àlex Gómez-Garrido](#). *CBBL, Universitat Pompeu Fabra, Barcelona.Spain.*

“Analysis of identifiability and application of optimal experimental design tools to the complete BioModels database”

11.20-17.25 Systems Biology Applications: BioMedicine and Bioprocesses

11.20-12.05- Plenary Lecture

Prof. L. Alberghina. *University of Milan-Bicocca (Milan, Italy)*

“Systems biology of the cell cycle”.

12.05-12.25-J. Bondia. *Institute of Control Systems and Industrial Computing – ai2, Technical University of Valencia, Valencia, Spain.*

“Prediction of postprandial glucose under uncertainty in Type 1 Diabetes Mellitus: a comparison of Interval Methods and Monte Carlo Simulation”

12.25-12.45- Marta Cascante. *Universitat de Barcelona-IBUB (Institute of Biomedicine University of Barcelona). Spain.*

“Robust metabolic network adaptation in multifactorial disease could become new targets for novel designed therapies”

12.45-14.00 Meeting of the Spanish`s Systems Biology network. Task Groups.

14:00-15:00 Lunch and Poster Session

15.00-15.45- Plenary Lecture

Prof. J. Snoep. *University of Stellenbosch, (Stellenbosch, South Africa)*

“Data and model integration using JWS Online”.

15.45-16.05- F. Sánchez-Jiménez. *Departments of Molecular Biology and Biochemistry. University of Málaga Spain.*

A trip towards a multilayer and extended view of amine metabolism assisted by Systems Biology technologies: the need of a consensus group.

16.05-16.25- Joaquín Ariño. *Universidad Autónoma de Barcelona. (on behalf of TRANSLUCENT-SysMo). Spain.*

Redes de interacción génica y modelización de la homeostasis de cationes en la levadura S. cerevisiae.

16.25-16.45- Angel Sevilla. *Department of Biochemistry and Biol. Molec. B e Inmunol. Faculty of Chemistry. University of Murcia. Spain.*

“New insights on the monitoring of a biotransformation process using Systems Biology”

16.45-17.05- Nestor V. Torres. *Biochemical Technology Group, Department of Biochemistry and Molecular Biology. University of La Laguna. La Laguna, Spain.*

“A systems biology approach to the modeling and analysis of the ligninolytic fungus Phanerochaete chrysosporium growth”

17.05-17.25-Pau Ferrer. *Department of Chemical Engineering, Universitat Autònoma de Barcelona. Spain.*

“Towards the understanding of Pichia pastoris’ central metabolism responses to environmental modifications through metabolic network and ¹³C- based metabolic flux analyses: A baseline study for metabolic engineering”

ORGANIZING COMITEE

M. Cánovas University of Murcia (Spain).

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N. Torres.	University of La Laguna (Spain).
S. F. Elena	IBMCP (CSIC-UPV, Spain).

SCIENTIFIC COMITEE

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