Màster Biomedicina

Programa de l'assignatura

Nom de l'assignatura: Experimental Models in Biomedicine.

Crèdits: 3

Coordinador: Cristóbal Mezquita Pla

Blocs temàtics:

1. Models for the study of human diseases. An overview of existing resources (2 h).
2. Model organisms (8 h).
3. Mouse models in epigenetics (1 h).
4. Cells as experimental models for human diseases (2 h).
5. Stem cells as experimental models of human diseases (2 h).
6. Induced pluripotent cells as experimental models of human diseases (2 h).
7. Cancer stem cell model (1 h)
8. Molecular modelling (1 h).
9. Putting Humpty Dumpty Back Together Again: Systems biology (1 h).
10. Discussion of studensts' projects on experimental models for the study of human diseases (10 h).

Bibliografia:

Organismes model en biologia. Corominas, M. i Valls M. ed. Treballs de la societat Catalana de Biologia, Volum 62, 2011.

Model Organisms for Biomedical Research, NIH, www.nih.gov/science/models

Model organisms. The Scientist, supplement 1, June 2, 2003.

Biology Animation Library (Model Organisms) http://www.dnalc.org/ddnalc/resources/model_organisms.html
An interactive computer animation introducing a variety of model organisms.

The baffling multitude of disease models for the study of human disease – how can the scientist navigate the huge amount of data and receive guidance? Michael C. Chang and Franziska B. Grieder, Disease Models & Mechanisms 1, 99-102 (2008)

Modeling Human Disease Phenotype in Model Organisms : ''It's Only a Model!''. *Circ Res.* 2011;109:356-359