

BioSys Scientific Advisory Board

Report 2015

The BioSys PhD Programme Scientific Advisory Board (SAB) participated in the 1st BioSys PhD Day which took place in the Rectory of the University of Lisboa on 11.12.2014. During a day-long meeting, 12 PhD students presented their projects and the results of their first year of courses and research, following an introductory short briefing from the Programme leaders, on its objectives, student recruitment and teaching/training activities. After the individual presentations and discussion, the SAB had the opportunity to engage in more detailed considerations and exchanges in separate meetings with the students and the faculty.


Having in mind the challenge BioSys explicitly aims to address, namely "to translate omics data into discernible biological knowledge to societal benefit" by adopting a systems biology approach, I was impressed by the degree of accomplishment the Programme has already managed by the end of the first year of its first edition. Predictably, at this stage there are still gaps to be filled and steps to be taken towards full achievement of the proposed aims, e.g., a tighter combination of biological and IT tools, a more extensive and intensive crossing of disciplinary boundaries and most importantly a deeper focus on the key (systemic) question of "how higher level properties of complex biological systems arise from the interactions among their parts".


The thematic coverage is also impressive, from plant response to climate change-associated environmental stressors, to functional networks underlying cancer progression, pathophysiology and therapy of rare genetic diseases (mostly cystic fibrosis) or the establishment and validation of biological models of disease, among other very relevant topics of research. The students acknowledged (i) the support received towards a smooth integration in the Programme and (ii) the opportunities for international cooperation provided.

However, the following issues need further consideration in order to improve BioSys implementation:

- Thin scientific supervision and lack of critical mass in some R&D groups.
- Insufficient communication with students, especially those not working in the FCUL campus.
- Portuguese (e.g., in computer programs, official documents,...) as a linguistic barrier to non-Portuguese speaking students.

Lisboa, 31.12.2014


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