

Meeting report: Noise in Life, 30 March-1 April 2009

Noise in Life was held at the Møller Moller Centre in Cambridge, 30 March-1 April 2009, and focused on cell signaling, regulation of gene expression and neuronal dynamics. "Noise in Life 2009" followed 2 previous Noise in Life meetings in Spain (2006) and Germany (2007). There was a nice balance between these three topics to make for an exciting meeting which improved our understanding of the emergence of mesoscopic dynamics in cell physiology. The meeting brought together communities from the biosciences, nonlinear dynamics, statistical physics, applied mathematics and scientific computing, and gathered together expertise in realistic modeling, multi-scale simulations and experimental biology.

Noise in Life was sponsored principally by SIGNET (the UK Cell Signalling Network, <http://www.cellsignet.org.uk>), with additional support from the UK Mathematical Neuroscience Network (<http://mathneuronet.org.uk>), and the European Science Foundation (<http://www.esf.org/>).

The meeting attracted 65 participants from a number of disciplines including Biology, Mathematics, Physics and Engineering, and was highly successful. There were 13 plenary presentations, 18 contributed talks and 2 poster sessions. Key outcomes included an increased appreciation in the community of the role of noise in biological systems, and of the complexity of distinguishing between intrinsic and extrinsic noise. All the plenary talks were of a very high standard, and particular highlights included plenary talks by Thomas Gregor (Princeton) on "Emergence of collective behavior in eukaryotic cell populations", Sui Huang (Calgary) on "Transcriptome fluctuations and cell fate decision", and Andrew Oates (Dresden) on "Intercellular coupling regulates the collective period of the segmentation clock". The meeting schedule and abstracts for all the talks and posters can be found on the meeting website at <http://www.cellsignet.org.uk/noise09>. The conference venue was excellent, providing a superb environment for scientific discussion during meal times and refreshment breaks. A number of connections between scientists and disciplines were newly made or refreshed, leading to visits between groups, and movement of early-stage researchers between institutions and countries.