

REPORT: PHYSICS OF LIVING MATTER 7 (PLM7)

Physics of Living Matter 7, which we held in September this year, was the 7th in a series of annual meetings which, up until now all have been in Cambridge. With the move to London, this year marked the development of the local symposium into an International conference.

This symposium began as an initiative aimed at developing a community of interdisciplinary research groups interested in quantitative systems biology grounded in the physical sciences. In previous years the meetings have explored how the techniques, methods and general philosophy of the Physical Sciences can be applied to Biology. The object of study was the structure and organization of the cell, looking down to the molecular realm and upwards towards the tissue/organism level.

Although widely advertised in Cambridge the meeting attracted interest from elsewhere mainly by word of mouth. By moving the venue to London this year and by organising it along similar lines to UCL's successful 2010 Physical Cell meeting, we aimed to attract an even wider pool of researchers from across the UK and Europe. In this we believe the meeting was a great success.

Because the field is new, we sought to keep the cost of registration low to attract a large audience of younger researchers, which we believe is critical for growing a lasting community. This was possible thanks to generous sponsorship from the Royal Society Interface Journal, the Company of Biologists, JPK, GSK, and from QuanTissue and the ESF. The sponsorship from QuanTissue helped to cover the travel and accommodation expenses of our European speakers.

The Symposium this year had several sub-themes: dynamic cell organisation, emergent properties of cellular assemblies and information processing at a molecular and cellular level. We assembled a strong field of international speakers to cover this ground, from molecular, cell to developmental biology using quantitative approaches borrowed from or inspired by the physical sciences. Finally, we held a tribute to Tom Duke at the meeting. Tragically Tom died earlier this year, and was a key person in this small community who will be sorely missed.

The plan is to hold PLM8 in Cambridge next year in the same spirit, as an international meeting that is targeted at the younger generation of researchers interested in the physics of biological systems. We very much hope that the ESF will continue to be a supporter of this meeting.

Yours faithfully,



Prof. Buzz Baum
*Cancer Research UK Senior Research Fellow and head of UCL Systems
Biology.*

Programme:

Day 1 – Thursday 13 September

Session I

Dynamic cell organisation (2pm to 5.30pm)

Speakers: Justin Molloy (NIMR, London, UK) Rafael Rodriguez Daga (CABD, Sevilla, Spain) Pascal Martin (Curie, Paris, France) Tony Hyman (MPI, Dresden, Germany) Martin Howard (John Innes, UK)

Bragg lecture

Speaker: Roger Brent (Fred Hutchinson Cancer Centre, USA)

Posters and drinks

Day 2 – Friday 14 September

Session II

Evolved information processing systems

Speakers: Calin Guet (IST, Vienna, Austria) Victor Sourjik (ZMBH, Heidelberg, Germany) Chris Barnes (UCL, London, UK) Ben Lehner (CRG, Barcelona, Spain) Karen Page (UCL, London) Bela Novak (Oxford, UK)

Tribute to Tom Duke

Session III

Emergence in cell ensembles

Speakers: Jean Paul Vincent (NIMR, London, UK) Tariq Enver (UCL, London, UK) Thomas Risler (Curie, Paris, France) Eric Siggia (Rockefeller, New York, USA)

Physics of Living Matter 7

The structure and evolution of cellular systems

13 - 14 September 2012 UCL Darwin Lecture Theatre

C. Barnes (London, UK)
T. Enver (London, UK)
U. Gaul (Munich, Germany)
C. Guet (Vienna, Austria)
M. Howard (Norwich, UK)
T. Hyman (Dresden, Germany)
B. Lehner (Barcelona, Spain)
P. Martin (Paris, France)

Registration:
<http://www.ucl.ac.uk/PhysCell>

Bragg Lecture:
Roger Brent
(Seattle, USA)

J. Molloy (London, UK)
B. Novak (Oxford, UK)
T. Risler (Paris, France)
R. Rodriguez Daga (Sevilla, Spain)
E. Siggia (New York, USA)
V. Sourjik (Heidelberg, Germany)
JP Vincent (London, UK)



QuanTissue

QUANTITATIVE MODELS OF CELLULAR
AND DEVELOPMENTAL BIOLOGY



THE COMPANY OF
Biologists

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