

Clocks, Switches and Signals Workshop

Monday 14 - Saturday 19 June 2010

Organisers: DA Rand, A Millar (Edinburgh), M White (Liverpool)

Lecture Room MS.02, Mathematics Institute • Zeeman Building • University of Warwick

Programme

Monday 14 June 2010

- 10.00 - 11.00 Coffee in the Mathematics Institute Common Room
- 11.00 - 11.10 **David Rand** (Warwick) Welcome and Introduction
- 11.10 - 12.00 **Daniel Forger** (Michigan) *Understanding Mammalian Circadian Timekeeping Through Mathematical Modelling*
- 12.10 - 13.30 Lunch in the Mathematics Institute Common Room
- 13.30 - 14.20 **Michael White** (Liverpool) *Dynamics and Function of the NF- κ B Signalling System*
- 14.30 - 15.20 **Marek Kimmel** (Rice) *Computational Modelling of Adult Neurogenesis in the Hippocampus*
- 15.20 - 16.00 Tea in the Mathematics Institute Common Room
- 16.00 - 16.50 **Antony Hall** (Liverpool) *The Effects of Temperature on the Circadian Clock in Arabidopsis*
- 17.00 - 17.50 **Alex Webb** (Cambridge) *Correct Biological Timing in Arabidopsis Requires Multiple Light Signalling Pathways*
- 18.00 Drinks & Snacks in the Mathematics Institute Common Room

Tuesday 15 June 2010

- 10.00 - 10.50 **Martha Merrow** (Groeningen) *The Circadian Clock as a Network of Coupled Oscillators: Perspectives from the Neurospora Model System*
- 10.50 - 11.30 Coffee in the Mathematics Institute Common Room
- 11.30 - 12.20 **Isabelle Carre** (Warwick) TBA
- 12.20 - 13.30 Lunch in the Mathematics Institute Common Room
- 13.30 - 14.20 **Tomasz Lipniacki** (Warsaw) *Regulation of DNA Repair and Apoptosis in p53 System*
- 14.30 - 15.20 **Mogens Jensen** (Copenhagen) *Oscillating Genetic Regulations in Time and Space: NF κ B, p53 and Wnt Systems*
- 15.20 - 16.00 Tea in the Mathematics Institute Common Room
- 16.00 - 16.50 **Didier Gonze** (Brussels) *Synchronization of Biological Oscillators: Application to Circadian Rhythms and to Metabolic Oscillations*
- 19.00 Conference Dinner in Radcliffe House

Clocks, Switches and Signals Workshop Programme (cont.)

Wednesday 16 June 2010

10.00 - 10.50	Erik Siggia (Rockefeller) <i>Geometry, Genetics and Evolution</i>
10.50 - 11.10	Coffee in the Mathematics Institute Common Room
11.10 - 12.00	Martin Howard (John Innes Centre) <i>Modelling the Epigenetic Dynamics of Vernalization in Arabidopsis</i>
12.10 - 13.00	Andrew Millar (Edinburgh) <i>Flexibility and Robustness in Circadian Timing</i>
13.00 - 13.45	Lunch in the Mathematics Institute Common Room
14.00	Excursion to Stratford upon Avon
19.00	Return transport to Kenilworth accommodation

Thursday 17 June 2010

10.00 - 10.50	John Tyson (Virginia Polytechnic) <i>Deterministic and Stochastic Models of Cell Cycle Regulation in Eukaryotes</i>
10.50 - 11.30	Coffee in the Mathematics Common Room
11.30 - 12.20	Mark Freeman (Washington) <i>Functional Connectivity Analysis in Synchronized Circadian Networks</i>
12.20 - 13.30	Lunch in the Mathematics Institute Common Room
13.30 - 14.20	Bela Novak (Oxford) <i>Switches in Mitosis</i>
14.30 - 15.20	David Rand (Warwick) <i>Measuring Dynamics, Noise & Heterogeneity in Genes and Networks</i>
15.20 - 16.00	Tea in the Mathematics Institute Common Room
16.00 - 16.50	Nick Monk (Nottingham) <i>Model-based Dissection of Oscillatory Notch Signalling Activity</i>

Friday 18 June 2010

10.00 - 10.50	Albert Goldbeter (Brussels) <i>Modelling the Dynamics of the Mammalian Cell Cycle and its Coupling to the Circadian Clock</i>
10.50 - 11.30	Coffee in the Mathematics Institute Common Room
11.30 - 12.20	Richard Morris (John Innes Centre) <i>The Control of Flowering Time</i>
12.20 - 13.30	Lunch in the Mathematics Institute Common Room
13.30 - 14.20	Oliver Ebenhoeh (Aberdeen) <i>From Daily to Yearly Rhythms: Modelling the Seasonal Behaviour in Sheep</i>
14.30 - 15.20	Closing