

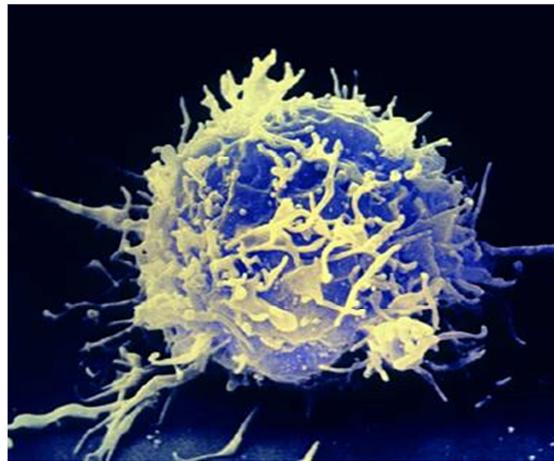
**KING'S**  
*College*  
**LONDON**



## **Satellite Meeting on Theoretical Immunology**

European Conference on Complex Systems 2013  
Barcelona, Spain September 19 2013

### **Modelling the Complexity of the Immune System**



#### *Timetable*

**09:20 Welcome and Opening**

**Chair: Alessia Annibale (King's College London)**

**09:30 Carmen Molina-París, University of Leeds**

Stochastic modelling in immunology at the molecular, cellular and population levels

**10:30 Ulrich Behn, University of Leipzig**

Evolution towards a complex architecture and self-tolerance in a minimal model of the idiotypic network

**11:00 Coffee break & Poster session**

**11:30 Rossana Scrivo, Sapienza University of Rome**

Autoimmune phenomena of biological treatments

**12:00 Pietro Liò, University of Cambridge**

Assessing comorbidities risk during an infection: SARS and HIV case studies

**12:30 Elena Agliari, University of Parma**

Energy and parallel processing in spin glass models of immune networks



**13:00 Lunch & Poster session**

**Afternoon Session**

**Chair: Elena Agliari (University of Parma)**

**14:15 Susan Holecchek, Arizona State University**

*Dengue as a complex epidemiological and immunological system*

**14:45 Anna Alemany, Universitat de Barcelona**

*Bond elasticity controls molecular recognition specificity in antibody-antigen binding*

**15:15 Short break & Poster session**

**15:30 Marcello Delitala, Politecnico di Torino**

*A mathematical model of competition between cancer cells and T-cells under immunotherapy*

**16:00 Deborah Dunn-Walters, King's College London**

*Challenges of age in immune system*

**16:30 Coffee break & Poster session**

**17:00 Collective debate:** *The big questions and the big obstacles in immune system modelling and its translation to medicine. Road map for the next decade.*

**Led by Adriano Barra (Sapienza Università di Roma) and Ton Coolen (King's College London)**

**18:00 End of the Satellite**

**Sponsors:**

**FIRALIS, Biomarker research and development**

**FIRB, Futuro in Ricerca di Base 2008**

**IMMB-KCL, Institute for Mathematical and Molecular Biomedicine**

**SAPIENZA, Università di Roma**

**INFN, Istituto Nazionale di Fisica Nucleare**