



## Synthetic Biology Workshop 12<sup>th</sup>-14<sup>th</sup> July 2010 St Anne's College University of Oxford



RoSBNet is a Network in Synthetic Biology bringing together researchers working in Synthetic and Systems Biology as well as systems/control engineers, electrical, chemical, computer engineers, physicists and mathematicians. It addresses the theoretical and practical challenges of designing new robust biological networks or modifying already existing ones, which have to function inside uncertain biological environments, all the way from parts to whole systems. The Network also focuses on the Ethical, Legal and Societal Issues that are raised by advances in Synthetic Biology, aiming to create a fruitful discussion on how such concerns can be balanced by the potential usefulness of the many applications, such as environmental cleanup, fuel generation and healthcare. The objective is to transfer knowledge and develop a fruitful discussion and cross-fertilization of ideas on modelling, analysis, design and construction of synthetic biological networks.

## **Topics:**

- **Biology Theme:** Constructing and modifying signal transduction, protein-protein and metabolic networks.
- **Electrical/Computer Engineering Theme:** Interconnecting parts to build circuits that perform efficiently and reliably.
- Control/Systems Engineering Theme: Interconnecting subsystems to design robust supersystems; modularity in design.

Ethical, economical, philosophical, legal and societal issues as well as measurement methods will form **underlying themes**.

## **Confirmed Speakers:**

Professor Murat Arcak (University of California Berkeley, USA)

Professor Giovanni Boniolo (IFOM-IEO, Italy)

Dr Stuart Dunbar (Syngenta, UK)

Professor Michael Hecht (University of Princeton, USA)

Professor Béla Novák (University of Oxford, UK)

Professor Sven Panke (ETH Zurich)

Professor Michael Savageau (University of California Davis, USA)

Professor Christina Smolke (Stanford University, USA)

Dr Susan Soulsby (EPSRC, UK)

Dr Dirk Stemerding (Rathenau Institute, The Netherlands)

Professor Peter Swain (University of Edinburgh, UK)

Professor Ian Thompson (University of Oxford, UK)

Professor Hans Westerhoff (University of Manchester, UK)

## Still time to Register—last few places! Please complete the Registration Form

Website: http://www.rosbnet.org
Wiki: http://sysos.eng.ox.ac.uk/control/RoSBNet/

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