

## Synthetic Biology

### Newsletter #3, April 2008

#### Dear Synthetic Biologist

Welcome to our third EMERGENCE newsletter on Synthetic Biology. This spring is full of European events in Synthetic Biology and with this newsletter, we try to give you an overview about some of them. If we forgot some important meetings or if you have some comments that you would like to send to us, please contact us via

[SB-Newsletter@ethz.ch](mailto:SB-Newsletter@ethz.ch)

**Important:** The EMERGENCE team will organize an advisory board meeting next to the Synthetic Biology SB4.0 in Hong Kong. More information will be soon available and posted on our EMERGENCE website.

For more information about the EMERGENCE project, please visit us at

<http://www.emergence.ethz.ch>

Kind regards, the EMERGENCE Team

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#### **ESF Conference Series: European Conference on Synthetic Biology (ECSB): Design, Programming and Optimisation of Biological Systems**

The first European conference on Synthetic Biology was organized by the European Science Foundation (ESF) and featured 4 tutorials, 7 plenary sessions, 2 panel discussions and 1 poster session. The conference took place in Sant Feliu de Guixols, Spain from November 24 – 29, 2007 and was chaired by Alfonso Valencia (CNIO, Spain), Sven Panke (ETHZ, Switzerland), Natalio Krasnogor (University of Nottingham, Great Britain) and Victor de Lorenzo (CSIC, Spain).

The conference started with a tutorial day consisting of several topics covered by Sven Panke (general review and developments), N. Krasnogor (computational modeling), P. Herdewijn (nucleic acid chemistry) and P. Luisi (What is life?).

The next sessions comprised topics such as 'Biology of minimal genomes and evolution', 'simulations', 'systems analysis', 'infrastructure for SB', and 'funding and industry links for Synthetic Biology'.

[More information](#)

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#### **iGEM Jamboree 2008**

**Important deadline:** Next year's jamboree will be on November 8th to 9th and the team registration closes on April 30th, 2008!

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To register for iGEM, please follow the link below:

<http://parts.mit.edu/igem08>

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### **News: Creation of the Industry Association of Synthetic Biology (IASB) in Germany**

The Industry Association of Synthetic Biology (IASB) is a consortium of companies in synthetic biology. Founding members include ATG:Biosynthetics GmbH, Biomax Informatics AG, Entelechon GmbH, febit synbio GmbH, MWG Biotech AG and Sloning BioTechnology GmbH. The main focus of the association is the advancement and future development of synthetic biology.

[More Information](#)

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### **IASB workshop on 'Biosecurity in Synthetic Biology'**

An IASB workshop on 'Biosecurity in Synthetic Biology' was held at this year's *Analytica* in Munich on April 3, 2008. More than 30 European and American experts from industry, research, EU and associations presented and discussed the requirements for Biosecurity in the use and commercial supply of synthetic genes.

Due to the increasing performance of DNA and gene synthesis, this area of research is growing dynamically and requires effective measures for safe use of these products. The rapid and cost-effective availability of DNA molecules opens up new opportunities but also entails novel risks in biotechnology. According to the workshop participants, these risks primarily include the purposeful misuse of the technology. However, inadvertent mistakes in the proper use of the new technological potential of synthetic biology must be considered.

The workshop focused on planning of appropriate risk management measures: sources of error may be reduced by systematic cataloguing and adequate user information via a dedicated internet portal. The risk of misuse may be minimized by close monitoring of customer orders.

[More information](#)

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### **Satellite Symposium Synthetic Biology at Biofine2008 in Freiburg**

The Symposium organized by Hubert Bernauer (ATG:biosynthetics) was intended to provide an insight on the emerging European Synthetic Biology projects and its most advanced enabling technologies.

SB is on the way to provide new approaches beneficial for applications in Healthcare and pharmaceutical production. In addition, the Symposium aimed specifically on the dissemination of recent activities in Synthetic Biology in Europe to the bio-pharmaceutical scientific community. Examples of technological approaches were presented that demonstrates how this field can support bio-pharmaceutical developments in both,

increasing the efficiency of research and development and, expanding the scope of biosynthetic design options.

The meeting was divided into three parts. The morning session dealt with scientific and organizational prerequisites for Synthetic Biology. The afternoon was reserved for the industry panel entitled 'Science Based Molecular Engineering'. A panel discussion in the evening elucidated the prerequisites for the development of a European industrial community in Synthetic Biology.

[More information](#)

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### **Upcoming Events in Synthetic Biology**

- Synthetic Biology, Systems Biology and Bioinformatics [BioSysBio](#), 20 - 22 April 2008, Imperial College London.
  - The 9<sup>th</sup> International Conference on Systems Biology [ICSB2008](#), 22 - 28 August 2008, Göteborg.
  - Fourth International Conference on [Synthetic Biology SB4.0](#), October 10 - 12, 2008, Hong Kong University of Science & Technology.
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