

LIFE UNDER (RE)CONSTRUCTION

"What I cannot create, I do not understand"

Richard Feynman, Nobel Prize winner in Physics, 1965

VBC PhD Symposium on Synthetic Biology

13th - 14th Nov. 2008

IMP, Vienna





Program Thursday

- 9:30 Opening remarks: Federico Mauri
- 10:00-11:00 Sven Panke
Keynote lecture: **Synthetic Biology – Towards Engineering in Biotechnology**
- 11:00-11:30 Coffee Break

Session 1 Part I: Making the bricks

Chair: Vivien Rolland

- 11:30-12:00 Giovanni Murtas
The emergence of “Minimal Cells” during the origin of life
- 12:00-12:30 Anthony C. Forster
Towards synthesis of a minimal cell
- 12:30-13:00 Philipp Holliger
Synthesis and replication of nucleic acids with expanded chemistry
- 13:00-14:30 Lunch

Session 1 part II

Chair: Tatsiana Skrahina

- 14:30-15:00 Jason Chin
Ribosome Engineering & New Genetic Codes
- 15:00-15:30 Ehud Shapiro
Why not edit DNA the way we edit text?
- 15:30-16:00 Coffee break

Session 2 part I: Building the house

Chair: Anne Göppert

- 16:00-16:30 Justin Gallivan
Engineering Bacteria to Recognize and Follow Small Molecules
- 16:30-17:00 Victor De Lorenzo
Orthogonalization of functional modules in bacteria destined for the environment
- 17:00-17:30 Rakesh K. Jain
Use of genetically modified organisms for bioremediation of contaminated sites

Program Friday



Session 2 part II

Chair: Ursula Pilat

- 10:00-10:30 Anselm Levskaya
Spatiotemporal Control of Signalling with Light
- 10:30-11:00 Heike Hall
Modified fibrin hydrogel matrices: both, 3D-scaffolds and local and controlled release systems to stimulate angiogenesis
- 11:00-11:30 Coffee break
- 11:30-12:00 Viola Vogel
Sensing, Regulating and Communicating by Mechanical Force
- 12:00-12:30 Martin Fussenegger
Synthetic Mammalian Gene Networks
- 12:30-14:00 Lunch

Session 3: Dealing with the neighbourhood

Chair: Jasna Medvedovic

- 14:00-14:30 Helge Torgersen
Sensitive technologies: can we learn from past conflicts?
- 14:30-15:00 Markus Schmidt
Do I understand what I can create? Biosafety reflections on synthetic biology
- 15:00-15:30 Coffee Break
- 15:30-16:30 Steven Benner
Closing lecture: **Synthetic Biology and Reagents to Personalize Medicine**
- 16:30-17:00 Conclusive remarks: Federico Mauri
- 17:15-17:45 VBC PhD award
- 18:00-on Dinner and party