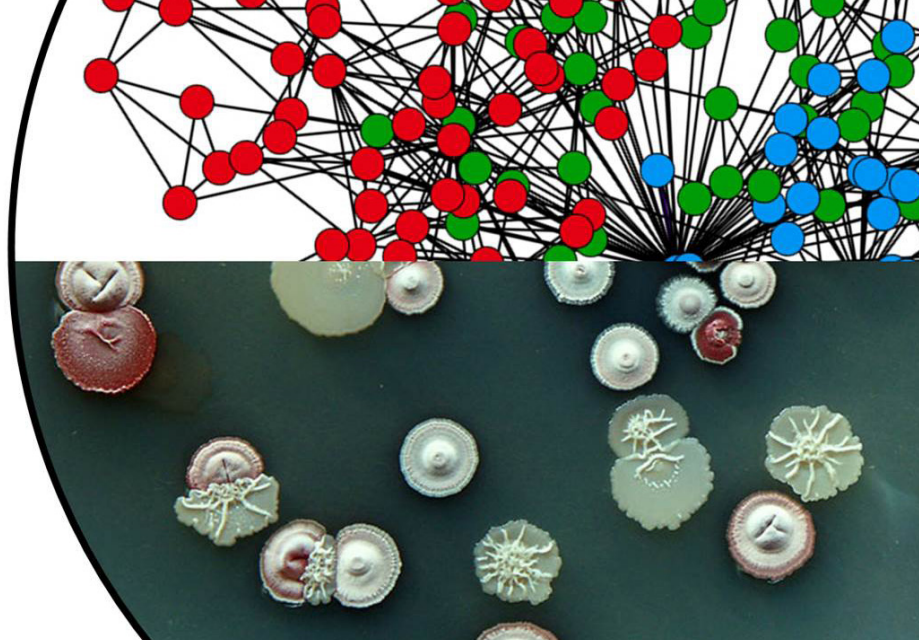


Rigi-Workshop, where disciplines meet

# Big answers from small packages: systems and synthetic biology of microbes

January 24 – 26, 2016, Rigi-Kulm



Want advice on how to de- and re-construct the smallest living cells to engineer modified nanomachines, rewire pathways and build synthetic genomes from scratch?

Bacteria and other microbes are among the simplest biological systems known and serve as powerful platforms to engineer synthetic cells. We have surgically removed and refactored their genetic modules into networks, switches and circuits; we have dug in their deepest past, we illuminated their insides with bolts of lightning and we engage in chemical (antibiotic) warfare with them.

What other knowledge is needed to design, manufacture and/or tame a living cell?

Invited speakers will talk about:

- **Phylogenomics of bacteria and organelles** (Matthias Horn, Universität Wien)
- **Phenotypic landscapes and chemical profiling** (Nassos Typas, EMBL Heidelberg)
- **High-throughput live-cell imaging** (Thierry Doan, CNRS Marseille)
- **Dark and synthetic metabolism** (Tobias Erb, Max Plank Institute Marburg)
- **Synthetic selection networks** (Morten Sommer, Technical University of Denmark)
- **Designer genomes** (Tom Ellis, Imperial College London)
- **Synthetic pathway engineering in bio-technology** (Jutta Heim, Evolva SA)

This 3-day course is held in English.

PhD students from all Swiss institutions of Higher Learning are most strongly encouraged to apply.

Postdoctoral applications are also considered. Applicants are asked to submit a research title/abstract and a short letter of motivation for attending before October 15th, 2015. The organizing committee will select the 40 most outstanding applicants to participate in this workshop.

Organizers: Prof. Patrick Viollier (Dept. Microbiology & Molecular Medicine, iGE3, University of Geneva), Prof. Beat Christen (Institute of Molecular Systems Biology, ETH Zürich)

For further information and registration:

[www.naturwissenschaften.ch/organisations/bio/events/rigi\\_workshop/36270](http://www.naturwissenschaften.ch/organisations/bio/events/rigi_workshop/36270)

Presented by the Platform Biology of the SCNAT.



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Académie des sciences naturelles

