Swiss Systems Biology Symposium
13.-14.11.2023 in Zäziwil (BE), Hotel Appenberg, Switzerland

Preliminary programme

Nov 13

11.30 - 12.30 Registration/ Sandwiches for people arriving

Session 1: New insights using high-performance computing
Chaired and organised by Simon Blanchoud

The recent increase in computational power and/or of improvement in simulation algorithms enables systems biologist to answer questions that previously would not have been possible. We will have invited speakers taking advantage of high-performance computing for getting insight at the molecular stage, the tissue level and at the organism/population level.

13:00-13:30 Stefano Vanni, University of Fribourg, University of Fribourg
13:30-14:00 tba
14:00-14:30 2 short presentations selected from abstracts

14:30-15:00 Coffee break

15:00-16:00 Keynote lecture 1: Ivo Sbalzarini, Center for Systems Biology Dresden, Germany
16:00-16:15 Poster flash presentations
16:30-19:00 Poster and networking with apéro

19:30 Dinner
Nov 14

**Session 2: Emergence and evolution of phenotypes**
Chaired and organised by Yolanda Schaerli

Most often, we still cannot accurately predict what the effect of a mutation will be. However, novel experimental, computational and theoretical approaches are leading to novel insights towards understanding the complex and nonlinear events that link genotypes to phenotypic outcomes.

8:30-9:30 **Keynote lecture 2:** Berta Verd, University of Oxford, UK

9:30-10:00 Break

10:00-10:30 Rolf Kümmerli, University of Zurich
10:30-11:00 Jolanda van Leeuwen, University of Lausanne
11:00-11:30 short presentations selected from abstracts
11:30 “**Last chance to show your poster**”-session

12:00-13:30 Lunch

**Session 3: Genetic circuits coping with cellular and environmental uncertainties**
Chaired and organised by Sahand Rahi

Organisms proliferate with noisy parts in an uncertain environment. To succeed, they have evolved strategies, encoded genetically, to mitigate risks. A number of topics from across systems biology fall under this general description, including how organisms deal with fluctuating environments, e.g., toxins, or with rare cellular events, e.g., DNA breaks. How the frequency and severity of these events is reflected in phenotypes and genetic programs to mitigate risks is an exciting area of research. This session will help develop commonalities across different speakers’ research interests.

13:30-14:00 Erik Van Nimwegen, Biozentrum Basel
14:00-14:30 Maria Brbic, EPFL
14:30-15:00 2 short presentations selected from abstracts
15:00-16:00 **Keynote lecture 3:** Ben Lehner, CRG Barcelona, Spain; Wellcome Sanger Institute, Cambridge, UK
16:00 Closing remarks