LIFE SCIENCES SYMPOSIUM 2015
PROGRAM
<table>
<thead>
<tr>
<th>Time</th>
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<tr>
<td>16:00-20:00</td>
<td>Registration</td>
<td>Rolex Learning Center</td>
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<tr>
<td>17:00-18:45</td>
<td>Opening session</td>
<td>Rolex Learning Center</td>
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**‘From neural circuits to social organization’**
*Chair: Gisou van der Goot*

- **Tom Südhof**: Neurexins: towards a molecular logic of neural circuits
- **Geraldine Seydoux**: Order in the cytoplasm: regulation of RNA granule dynamics
- **Laurent Keller**: A social chromosome with properties of a sex chromosome regulates social organization in ants

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<tr>
<td>18:45</td>
<td>Welcome reception</td>
<td>Outside of Rolex Learning Center</td>
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09:00-10:30  **Session 2 - ‘From asymmetry to microbiology’**  
Chair: Stewart Cole  
  
- **Marcos Gonzalez-Gaitan:** The basis of the asymmetric targeting of endosomes during asymmetric division  
- **Melanie Blokesch:** Live and let die – a molecular killing device fosters gene transfer in *Vibrio cholerae*  
- **Tam Mignot:** Moving parts and fixed anchor points, surface motility seen from a bacterial perspective

10:30-11:00  Coffee break, next to sponsors’ booths  

11:00-12:30  **Session 3 - ‘From optogenetics to modeling’**  
Chair: Matthias Lütolf  
  
- **Karl Deisseroth:** Optical tools for probing intact biological systems  
- **Martin Fussenegger:** Prosthetic gene networks for biomedical applications  
- **Naama Barkai:** Robust patterning of the *Drosophila* eye

12:30-14:00  Lunch, next to sponsors’ booths

14:00-16:00  **Session 4 - ‘From synapses to consciousness’**  
Chair: Carl Petersen  
  
- **Elly Nedivi:** Structural plasticity of inhibitory circuits in the adult brain  
- **Clay Reid:** Functional connectomic research at the Allen Institute  
- **Itzhak Fried:** Cognitive neuromodulation: from single neurons to clinical intervention  
- **Stanislas Dehaene:** Signatures of consciousness in the human brain

16:00-16:30  Coffee break, next to sponsors’ booths

16:30-18:00  **Session 5 - ‘From systems biophysics to personalized medicine’**  
Chair: Bart Deplancke  
  
- **Marileen Dogterom:** A minimal molecular mechanism for microtubule-based cell polarity in fission yeast  
- **Brenda Andrews:** Genetic networks: general properties and complex phenotypes  
- **Mike Snyder:** Personalized medicine: analysis of complex disease using integrative omics profiling
09:00-10:30 **Session 6** - *From microtubules to oscillators*
  *Chair: Pierre Gönczy*

  **Anna Akhmanova:** Control of microtubule organization and dynamics from the two ends
  **Suliana Manley:** Splitting bacterial and mitochondrial membranes in division and fission
  **Petra Schwille:** Defined features of protein oscillators

10:30-11:00 Coffee break, next to sponsors’ booths

11:00-12:30 **Session 7** - *From cancer genomics to decision making*
  *Chair: Doug Hanahan*

  **Mike Stratton:** Signatures of mutational processes
  **Stéphanie Lacour:** Design concepts for truly biointegrated neural implants
  **Karel Svoboda:** Illuminating the neural circuits underlying decision making

12:30-14:00 Lunch, next to sponsors’ booths

14:00-16:00 **Session 8** - *From cell signaling to stem cells*
  *Chair: David Suter*

  **Mike Hall:** mTOR signaling in growth and metabolism
  **Scott Emr - The EMBO Keynote Lecture:** Proteostasis: Ubiquitin- and ESCRT-dependent membrane protein quality control systems
  **Ivan Dikic:** Ubiquitin and autophagy networks in health and disease
  **Hans Clevers:** Wnt signaling, Lgr5 stem cells and cancer

16:00-16:30 Coffee break, next to sponsors’ booths

16:30-18:00 **Session 9** - *From population genetics to pattern formation*
  *Chair: Denis Duboule*

  **Gil McVean:** Population genetics of rare variants in huge samples
  **Denis Duboule:** The organization of regulation at Hox gene loci
  **Shigeru Kondo:** Mechanism of autonomous pattern formation in animal skin

19:00 Barbecue dinner
Exhibitors in S8 Hall:

- Biotechne
- Multi Channel Systems
- BioTek
- Nanolive
- Enzo
- NCCR Chemical Biology
- Frontiers
- Gilson
- Nikon
- Hamamatsu
- Olympus
- Hunter & Caprez
- Jackson ImmunoResearch
- Li-Cor
- Phymep
- Life Systems Design
- Lubio Science
- Socorex
- Thermo Fisher Scientific
- 3DC
- Witec AG
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SYMPOSIUM 2015
http://lss2015.epfl.ch

Scientific committee:
Prof. Bart Deplancke
Prof. Pierre Gönzcy - chair
Prof. Gisou van der Goot
Prof. Carl Petersen

Organizing committee:
Prof. Pierre Gönzcy - chair
Dr Harald Hirling
Dr Sacha Sidjanski
Mrs Laurence Mauro
Mrs Manuelle Mary
Mrs Caroline O’Neill