Quantitative Biology Kick-off Meeting

October 17th, 2016 (9:15-17:45) - Amphithéâtre Monod

14:00 – Keynote speaker: *Rob Phillips (Caltech)*

How Schrodinger's Cat became a Cat:
Searching for Hidden Variables in Regulatory Biology

09:15-10:30 – Multi-scale self-organization from stochastic molecular interactions

- *Stripe and dot patterns by self-organized Notch dynamics (François Schweisguth)*
- *4D-genome folding and dynamics of gene expression in animal development (François Spitz)*
- *Transient protein-complex formation facilitates processive cell-wall insertion (Eva Wollrab)*
- *Polarizing the intermediate filament network during directed cell migration (Sandrine Etienne-Manneville)*

11:00-12:00 – Mechanics in sub-cellular and multi-cellular organization

- *Type-IV pili mediated intermittent forces generate viscous liquid aggregates of N. Meningitidis (Daria Bonazzi)*
- *Mechanism of heart tube morphogenesis at the looping stage (J.F. Le Garrec)*
- *Deciphering intracellular morphodynamics using Biophysical Optical Flow (Alexandre Dufour)*
- *Mechanics of Gastrulation (Jérome Gros)*

12:00-14:00 – Poster session and lunch (Btm 25)

14:00-15:00 – Keynote lecture Rob Phillips

15:00-17:00 – Information processing and signaling – from the genetic code to the brain

- *A single-molecule view of transcription reveals convoys of RNA polymerases and multiscale Bursting (Florian Müller)*
- *Balancing a genetic toggle switch by real-time control or periodic stimulations (Gregory Batt)*
- *From Twitter to the understanding of 3D structure of bacterial genomes (Axel Cournac)*
- *Computational approaches to understanding cellular contributions to information processing in brain circuits (Alessandro Barri)*
- *Towards online processing of 2-photon imaging data during rodent virtual navigation*
- *(Christophe Schmidt-Hieber)*
- *Experimental Monte-Carlo: Quantifying the growth of bacterial colonies using microfluidics (Charles Baroud)*

17:00-17:45 – Panel discussion

More information and full program:
https://research.pasteur.fr/fr/event/kick-off-meeting-in-quantitative-biology/