



## Symbiosis in evolution, biology and human health

15-17 March 2017 - UPMC

### Symbiosis in our environment

Session 1 – 15 March – 16:00-19:00 – Chairman: Philippe Lopez

**15.00 – Registration and welcome coffee**

**15.55 - Welcome speech** — Michel Labouesse

**16.00 - Keynote speaker: Antoine Danchin** (ICAN, Paris, France) — From *Tenericutes* symbiosis to synthetic genomes

**16.45 - Nicole Dubilier** (MPI-Bremen, Germany) — The advantages of being flexible: Horizontal gene transfer and strain diversity provide metabolic and functional benefits to chemosynthetic symbioses

**17.15 - Coffee break**

**17.45 - Colombar de Vargas** (Roscoff Marine Station, France) — Global Ocean Biodiversity & Symbiogenesis

**18.15 - Eric Baptiste** (IBPS, Paris, France) — Contribution of symbiogenetic genes to evolutionary transitions

**19.00 - Cocktail**

### Interactions with hosts and immunity

Session 2 – 16 March – 9:00-12:30 – Chairman: Christophe Antoniewski

**09.00 - Keynote speaker: Marc-André Sélosse** (MNHN, Paris, France) — The evolution of interdependency by neutral evolution in holobionts

**09.45 - Bruno Lemaître** (EPFL, Lausanne, Switzerland) — The *Drosophila-Spiroplasma* interaction as a model to dissect the molecular mechanisms underlying insect endosymbiosis

**10.15 - Georges Dimopoulos** (Johns Hopkins University, Baltimore, USA) — Reciprocal interactions between mosquito microbiota and human pathogens can influence disease transmission

**10.45 - Coffee break**

**11.15 - Louis Lambrechts** (Pasteur Institute, Paris, France) — Larval ecology, bacterial microbiota and mosquito vectorial capacity

**11.45 - Philippe Sansonetti** (Pasteur Institute, Paris, France) — Microbiota, lipids and the intestine: a subtle "ménage à trois"

**12.15 - Pollet Nicolas** (CNRS, Gif-sur-Yvette, France) — Taxonomic and functional resemblance between frog and mammalian gut microbiota.

**12.30 - Lunch break**



## Evolution and modelling

Session 3 – 16 March – 15:00-18:15 – Chairwoman: Shixin Ye-Lehmann

**15.00 - Keynote speaker: Jan Sapp** (York University, Toronto, Canada) – Symbiotic conceptions of evolution and the organism

**15.45 – Sébastien Duperron** (UPMC, Paris, France) — Adaptation by association in the deep-sea: the case of chemosynthetic symbioses in bivalves

**16.15 - Wolfgang Miller** (Medical University of Vienna) — Unorthodox transmission modes of endosymbionts in hybrids and the symbiotic origin of speciation

**16.30 - Coffee break**

**17.00 - Jeroen Raes** (Catholic University of Leuven, Belgium) — Towards population-level microbiome monitoring: the Flemish Gut Flora Project

**17.30 - Nancy Moran** (Texas University, Austin, USA) — Microbiome evolution in social bees

**18.00 - Laure Segurel** (MHNH, Paris, France) — Biodiversity of the human gut microbiome: influence of diet and parasitism

## Human health

Session 4 – 17 March – 9:00-12:30 – Chairwoman: Ingrid Lafontaine

**09.00 - Keynote speaker: Jens Nielsen** (Gothenburg University, Sweden) — Assessing the Human Gut Microbiota in Metabolic Diseases

**09.45 - Karine Clément** (ICAN, Paris, France) — Human gut microbiota and cardiometabolic disorders

**10.15 - Howard Ochman** (Texas University, Austin, USA) — The Extraordinary Evolution of the Great Ape Microbiome

**10.45 - Coffee break**

**11.15 - Sven Pettersson** (Karolinska Institute, Stockholm, Sweden – Nanyang Tech. University, Singapore) — The evolving inner-self; Gut microbes and ageing

**11.45 - Michel Neunlist** (Nantes University, France) — Microbiota, gut and brain diseases

**12.15 - Ana Elena Pérez-Cobas** (Pasteur Institute, Paris, France) — Lung microbiome composition during Legionella-associated pneumonia and antibiotic treatment

Talk duration: Keynote 45 min; other invited speakers 30 min; selected from abstract 15 min; coffee break 30 min.