

ITMO CELL BIOLOGY, DEVELOPMENT AND EVOLUTION

ITMO GENETICS, GENOMICS AND BIOINFORMATICS

**November 28<sup>th</sup> and 29<sup>th</sup>, 2013**  
CNRS, Campus Gérard Mégie  
3 rue Michel-Ange, Paris 16<sup>e</sup>

Colloquium **Evolution:  
Present and Future**

**Thursday, November 28<sup>th</sup>, 2013**

1:00 PM

**Reception - Coffee**

2:00 PM

**Introduction:** **Laurent Kodjabachian**, director of ITMO Cell biology, development and evolution; **Dominique Joly**, CNRS -Institute of ecology and environment; **Vincent Laudet**, Director of Institute of Functional Genomics of Lyon; **Thierry Galli**, deputy director of ITMO Cell biology, development and evolution

**SESSION 1: CELLULAR MECHANISMS OF DEVELOPMENT AND EVOLUTION**  
**Chairman: Laurent Kodjabachian**

2:10 PM

How rapid evolution did reshape the ancestral chordate genome in tunicates (Oikopleura and other larvaceans), **Daniel Chourrout**, Bergen (Norway)

2:50 PM

Filamentous development in brown algae: alternative processes of multicellularity, **Bénédicte Charrier**, Roscoff

3:10 PM

Address of Pr **André Syrota**, President of Aviesan, Chairman and CEO of Inserm

3:20 PM

Clues about the origin and evolution of metazoan embryo polarity from studies in the cnidarian Clytia, **Evelyn Houliston**, Villefranche-sur-Mer

3:40 PM

Robustness and evolution of *C. elegans* vulva development, **Marie-Anne Félix**, Paris

4:00 PM

What studies in planarians reveal about animal centrosome structure and function, **Juliette Azimzadeh**, Paris

4:20 PM

**Coffee break**

4:40 PM

Regulatory mechanisms of emergence and diversification of morphological patterns, **Benjamin Prud'homme**, Marseille

5:00 PM

Regenerating the body: old questions, new models, **Michalis Averof**, Lyon

**SESSION 2: EVOLUTION AND PATHOLOGY**  
**Chairman: Vincent Laudet**

5:20 PM

The capital economy in hominin evolution: body fat made us human, **Jonathan Wells**, London (UK)

6:00 PM

Cancer evolution and prevention, **Michael Hochberg**, Montpellier

6:20 PM

Population genetic tools to dissect immunity to infection in humans, **Lluís Quintana-Murci**, Paris



Friday, November 29<sup>th</sup>, 2013**SESSION 2: EVOLUTION AND PATHOLOGY (PART 2)****Chairman: Vincent Laudet**

- 9:00 AM Evolutionary thinking in medicine, **Michel Raymond**, Montpellier
- 9:20 AM Biased gene conversion: the dark side of recombination, **Laurent Duret**, Lyon

**SESSION 3: ADAPTATION TO ENVIRONMENT****Chairman: Dominique Joly**

- 9:40 AM Address of **Stéphanie Thiebault**, Vice-president of AllEnvi, Director of the CNRS' Institute of ecology and environment (INEE)
- 9:50 AM Tracing the genetic basis of adaptations in the house mouse, **Diethard Tautz**, Ploen (Germany)

**10:30 AM Coffee break**

- 10:50 AM The genetic basis of adaptation: molecular evolution of mimicry in butterflies, **Mathieu Joron**, Paris

- 11:10 AM Metabolic evolution of a *Drosophila* fly adapted to its cactus host, **Virginie Orgogozo**, Paris

- 11:30 AM Development and evolution of the brain in the blind cavefish *Astyanax mexicanus*: drift and selection, **Sylvie Rétaux**, Paris

- 11:50 AM The dynamics of hybridization and speciation in forest trees, **Rémy Petit**, Bordeaux

- 12:10 PM Rapid adaptive changes in morphology and function in natural population, **Anthony Herrel**, Paris

**12:30 PM Lunch break**

- 2:00 PM Round Table on future challenges in Evolutionary Biology led by **Michel Vervoort**

**SESSION 4: NEW OUTLOOKS ON EVOLUTION****Chairman: Thierry Grange**

- 2:40 PM What have we learned from 25 years of molecular phylogenies of the animal kingdom? **Max Telford**, London (UK)

- 3:20 PM Genetic and nongenetic inheritance: a current paradigm shift, **Etienne Danchin**, Toulouse

- 3:40 PM Biodiversity and Evolution: the last refuge for basic research in Biology? **Jean-Michel Claverie**, Marseille

- 4:00 PM How horizontal transfer shapes the biochemistry, genetics and behavior of bacteria, **Eduardo Rocha**, Paris

- 4:20 PM A brief history of human evolution: are climates and geography the main driving forces? **Jean-Jacques Jaeger**, Poitiers

**4:40 PM End of colloquium**