



# 3<sup>RD</sup> PARIS SACLAY JUNIOR CONFERENCE ON COMPUTATIONAL BIOLOGY

Orsay November 13, 2019

## Final Programme

9:00-9:15

**Welcome and opening by the organizers**

### Session 1 : Genome Analysis

9:15-10:10

**Keynote Speaker : Eduardo Rocha, Institut Pasteur, Paris**

Horizontal gene transfer: from gene acquisition to functional innovation

10:10-10:30

**Julie Lao, INRA**

Toward an automatic annotation of Integrative Conjugative and Mobilizable Elements

10:30-10:50

**Coffee break**

10:50-11:10

**Sourav Ghosh, I2BC**

Optimizing the mapping of Nanopore Direct-RNA reads for complex genomics applications

11:10-11:30

**Chris Papadopoulos, I2BC-UPSUD**

Exploration of the potential of the non coding genome to give rise to novel genes through a structural approach

11:30-11:50

**Yunfeng Wang, I2BC-UPSUD**

Cancer transcriptome at nucleotide resolution

11:50-12:10

**Javier Zea Diego, LCQB-SU**

ThorAxe: Transcript-aware orthology relationships among exons

12:10-12:30

**Haoliang Xue, I2BC-UPSUD**

The Transipedia Project: representing and searching transcripts using k-mers

12:30-13:45

**Lunch on site**

### Session 2: Structural Bioinformatics

13:45-14:40

**Keynote Speaker: Adrien Melquiond, Utrecht University, Netherlands**

A tale with two tails ! When integrated structural biology sometimes go wrong

14:40-15:00

**Coline Gianfrotta, LRI-UPSUD**

A graph-based approach for classifying and predicting A-minor motifs in RNA structures

15:00-15:20

**Audrey Legendre, IBISC-UVSQ**

Prédiction de structures secondaires de complexes d'ARN

15:20-15:40

**Jean-Charles Carvaillo, I2BC-UPSUD**

Vers une meilleure compréhension des bases de l'auto-assemblage de la capsid du norovirus

15:40-16:00

**Coffee break**

16:00-16:20

**Vaitea Opuu, Laboratoire de Biochimie-Polytechnique**

Computational design of proteins and enzymes

16:20-16:40

**Charline Fagnen, LBPA-SU**

Gating mechanism of a potassium channel, experimental and theoretical studies

### Session 3: Integrative & Network Biology

16:40-17:00

**Mélanie Fouesnard, INRA**

A multi-omic approach reveals how microbiota-hypothalamus axis adapts to a Western-diet short-term exposure in rats.

17:00-17:20

**Jérémie Pardo, IBISC, Univ Paris-Saclay**

Sequential reprogramming of biological network fate

17:20-17:30

**Concluding remarks**

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