INTRODUCTION

The conference focuses on the analysis of repetitive elements found in eukaryotic genomes as well as of genomic dark matter. Its challenge is to come up with novel approaches to further the understanding of non-genic chromosomal sequence features. This is particularly important in order to better understand the signaling networks that regulate chromatin and nuclear compartment organisation.

The presentations will first focus on de novo repeat analysis methods based on the repeated nature of genetic DNA elements and their sequence conservation, in either assembled or unassembled genomes. Genetic repeats will be then examined from a functional standpoint. It will end by addressing the possibilities to define a "repeated species" and to explore the methods and feasibility of classifying these in the light of their diversity and complexity.

8 JULY 2015

14H00   Official opening of the Conference
- LE STUDIUM representative
- Yves Bigot (CNRS - INRA Nouzilly) & Peter Arensburger (California State University, Pomona, USA)

SESSION ONE

14H20   Introduction talks

Chairman: Yves Bigot

Yves Bigot

Introduction to the complexity of eukaryotic genomes - Scientific challenges of the meeting

SESSION TWO

14H30   Analysis and annotation of the repeats in assembled eukaryotic genomes - methodological approaches

Chairman: David Pollocq

- **David Pollocq**
  Identification of repeat structures in large genomes using repeat probability clouds

15H30   Coffee break

16H30   Florian Maumus

REPET, Repeatscout and Repeatmodeler : principes and efficiencies.

16H30   Hadi Quesneville

De novo annotation with REPET and P-clouds : beyond default parameters

17H15   Conclusion of the session 2 by the Chairman

18.30   *LE STUDIUM® LECTURE*

Dr Peter Arensburger
Éléments transposables, la partie cachée des génomes

9 JULY 2015

SESSION THREE

Analysis and annotation of the repeats in eukaryotic genome
Chairman: Jiri Macas

09H00   Assembled genomes

- **Sébastien Guizard**
  Diving in the deep annotation the genome of the red jungle fowl genome

- **Jean Nicolas Volff**
  Did alive animal fossils contain DNA fossils in their genomes ?

10H30   Coffee break

11H00   Unassembled genomes

- **Jiri Macas**
  Repeat Explorer : beyond default parameters

- **Yves Bigot**
  Analyzing repeats in breeds of chickens with RE and complementary approaches

- **Conclusion of the session 3 by the Chairman**

12H30   Lunch

SESSION FOUR

14H00   Repetitive elements involved in chromatin activity
Chairman: Davide Gebellini

- **Davide Gabellini**
  A repetitive elements perspective in Polycomb epigenetics

- **Bruno Pitard**
  New concepts to factory antibody library for OMICS

- **Yves Bigot**
  Silencer and mariner transposable elements

16H00   Coffee break

16H30   Repetitive elements involved in nuclear organisation
Chairman: Nicolas Mermod

- **Jan Øivind Moskaug**
  Diversity, dynamics and annotations of Lamina Associated Domains in eukaryotic genomes

- **Attila Nemeth**
  Diversity, dynamics and annotations of Nucleolus Associated Domains in eukaryotic genomes

- **Conclusion of the session 4 by the Chairman**

19H30   Conference Gala Dinner
(by shuttle, meeting Place Jean Jaurès at 19h00)
Bistrot de la Bulle à Charentilly

10 JULY 2015

SESSION FIVE

09H00   Can we annotate without to classify ?
Chairman : Hadi Quesneville

- **Jiri Macas**
  How can we model a "repeat species" for annotation ?

- **Sébastien Tempel**
  "repeat species" for annotation : using model-based identification tools

10H00   Coffee break

10H30   Can we annotate without to classify ?

- **Peter Arensburger**
  A survey of transposable element classification systems – a call for a fundamental update to meet the challenge of their diversity and complexity

- **Conclusion of the session 5 by the Chairman**

11H30   Conclusions

- **Yves Bigot**
  Future lanes that could be continued from the Ins and outs of this meeting

12H00   Boxed lunch

8-10 July 2015

Analysis and Annotation of DNA Repeats and Dark Matter in Eukaryotic Genomes

SPEAKERS

Dr Peter ARENSEBURGER
California State Polytechnic University - USA

Dr Yves BIGOT
UMR INRA-CNRS 7247 Physiologie de la Reproduction et des Comportements - FR

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Dr Attila NEMETH
University of Regensburg - DE

Dr Bruno PITARD
In Cell Art - FR

Pr David POLLOCQ
University of Colorado School of Medicine - USA

Dr Hadi QUESNEVILLE
URGI / INRA - Unité de Recherches en Génomique-Info (UR INRA 1164) - FR

Dr Sébastien TEMPEL
Aix-Marseille Université - FR

Pr Jean-Nicolas VOLFF
Institut de Génomique Fonctionnelle de Lyon, Ecole Normale Supérieure de Lyon - FR

LOCATION

Lycée Descartes - Tours
10 Rue des Minimes
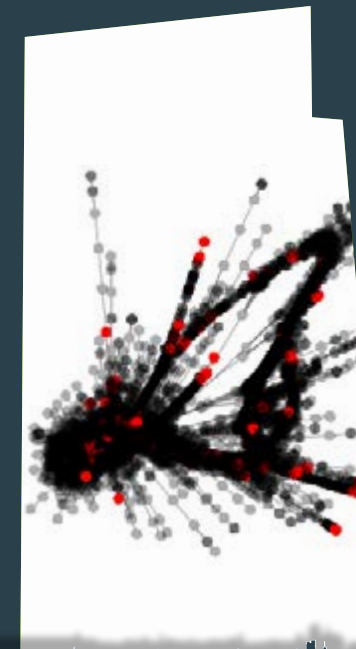**37000 Tours**

CONVENORS

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