





27<sup>th</sup> -29<sup>th</sup> October 2021 Tours (France)





## **Programme**

















| Wednesday, October 27 <sup>th</sup>   |  |  |
|---|--|--|
| 08h30   | Registration   |  |
| 09h30   | Introduction   |  |
|   | Patrick Wincker, France Génomique  |  |
|   | Jean-Christophe Simon, GDR Génomique Environnementale  |  |
|   | David Giron, IRBI  |  |
| Genomics of plants and animals and their microbiota  Chair: Jean-Christophe Simon |  |  |
| 09h40   | Keynote Y. Guiguen "Diversity and evolution of genetic sex determination in fish"  |  |
| 10h25   | R. Pienaar "First evidence of long-lasting association between viruses and the Black soldier fly, <i>Hermetia illucens</i> " |  |
| 10h45   | M. Biget "Intra-annual shifts and deterministic assembly of root endospheric microbial communities of the grapevines"        |  |
| 11h05   | C. Paillard "Recent advances in bivalve-microbiota interactions for disease prevention in aquaculture"                       |  |
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| 11h25-11h45 Coffee Break (Barnum)   |  |  |
|   | Exploring diversity and evolution of Life Chair: Patrick Wincker   |  |
| 11h45   | Featured speaker   |  |
| 401.45  | H. Morlon "Macroecology and macroevolution of the oceanic plankton"  |  |
| 12h15   | G. Marec "Microbial community assembly in a mosaic of marine lichens"  |  |
| 12h35   | F. Denoeud "High-quality genome assemblies of corals highlight the specifics of their long lifespan"                         |  |
| 12h55   | C. Martin "Metabarcoding body remains sieved from tree hollow wood mould to characterize forest insects"                     |  |
|   | 13h15-14h25 Lunch Break (Barnum)   |  |
|   | Exploring ecosystems using metagenomics Chair: Sophie Arnaud Haond   |  |
| 14h25   | Featured speaker P. Galand "Coral associated microorganisms from communities to genomes"                                     |  |
| 14h55   | C. Delbès "MetaPDOcheese: Nature and role of biotic drivers of microbial communities in traditional cheeses"                 |  |
| 15h15   | L. Paoli "Uncharted biosynthetic potential of the ocean microbiome"  |  |
| 15h35   | C. Djemiel "Biogeographical patterns and determinism of soil fungal alpha-diversity in France"                               |  |
| 15h55   | P. Debeljak "Carbon Fixing Unknowns: Exploring small green algae `dark matter'"  |  |
|   | 16h15-16h35 Coffee Break (Barnum)  |  |
|   | Exploring diversity and evolution of Life  Chair: Hélène Morlon  |  |
| 16h35   | Featured speaker   |  |
|   | S. Duharcourt "Massive invasion of genes by selfish genetic elements in <i>Paramecium</i> germline genomes"                  |  |
| 17h05   | E. Gadoin "Fishing for the microbiome of tropical tuna"  |  |
| 17h35   | L. Reynes "Genomic signatures of clonality in the deep water kelp Laminaria rodriguezii"                                     |  |
| 17h55   | Featured speaker  A. Kremer "Genome-wide evolutionary responses of European oaks since the Little Ice Age"                   |  |
| 18h25   | Posters presentation   |  |
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| Thursday, October 28 <sup>th</sup> |   |  |
|------------------------------------|---|--|
|                                    | Genomics of biological interactions : holobionts, pathogens, symbionts  |  |
| 201.00                             | Chair: Jean-Michel Drezen   |  |
| 09h00                              | Keynote  E. Huguet "Genomics of endogenous symbiotic viruses in parasitoid wasp-insect host interactions"   |  |
| 09h45                              | E. Armstrong "Disentangling the effects of genotype, environment, and symbiotype on coral holobiont gene expression across the Pacific"                               |  |
| 10h05                              | H. Muller "Genome-wide patterns of bracovirus chromosomal integration into multiple host tissues during parasitism"   |  |
| 10h25                              | F. Dedeine "Vertical transmission of the gut microbiota in termites: evidence from a host-population based approach"  |  |
| 10h45                              | B. Guinet "Endogenization of dsDNA viruses as a widespread source of adaptation in endoparasitoid species"  |  |
|                                    | 11h05-11h25 Coffee Break (Barnum)   |  |
|                                    | Genomics of plants and animals and their microbiota  Chair: Denis Milan   |  |
| 11h25                              | Featured speaker  V. Decroocq "Following the Adaptive Path of Apricot Domestication using Population Genomics"  |  |
| 11h55                              | A. d'Hont "Mosaic genomes of bananas"   |  |
| 12h15                              | M. Rousseau-Gueutin "New ways to improve the narrow genetic diversity of the polyploid crop <i>Brassica napus</i> (oilseed rape)"                                     |  |
| 12h35                              | M. Merle "Genome dynamics in <i>Rhodnius</i> species, vectors of Chagas disease"  |  |
|                                    | 12h55-14h05 Lunch Break (Barnum)  |  |
|                                    | Exploring diversity and evolution of life  Chair: Antoine Kremer  |  |
| 14h05                              | Featured speaker  |  |
|                                    | M. Joron "The dual role of recombination suppression in the formation of inversion polymorphisms"   |  |
| 14h25                              | H. Schneemann "What can we learn from genome scans about the genetic basis of hybrid fitness?"  |  |
| 14h45                              | G. Koutsovoulos "The root-knot nematode <i>Meloidogyne incognita</i> shows surprising adaptability despite clonal reproduction and low variation at the genome level" |  |
| 15h05                              | H. Roest Crollius "The European Reference Genome Atlas, 200.000 genomes to revolutionise biology"   |  |
|                                    | 15h25-15h45 Coffee Break (Barnum)   |  |
|                                    | Technological advances: producing and analyzing genomic data  Chair: Patrick Wincker  |  |
| 15h45                              | Keynote S. Le Crom "10 years of data evolution in genomics"   |  |
| 16h30                              | J-M. Aury "De novo Sequencing and Assembly of Complex Genomes"  |  |
| 16h50                              | C. Klopp "De novo assembly of complex genomes, comparing long read sequencing technologies and data processing strategies"  |  |
| 17h10                              | A. Tourancheau "Discovering multiple types of DNA methylation from bacteria and microbiome using nanopore sequencing"   |  |
| 17h30                              | Round table   |  |
| 18h15                              | Posters presentation  |  |

|   | Friday, October 29 <sup>th</sup>  |  |  |
|---|---|--|--|
|   | Ancient DNA and paleo-environments  |  |  |
| 0520  | Chair: Christine Paillard   |  |  |
| 9h30  | Keynote L. Orlando "Tracking the genomic homeland of horse domestication"   |  |  |
| 10h15   | D. Diquelou "Thousands of years of human-dog relationships: uncovering adaptation to dietary changes of dogs, resulting from the transition to farming" |  |  |
| 10h35   | J. Salse "Paleogenomics: reconstruction of plant evolutionary trajectories from modern and ancient DNA"   |  |  |
| 10h55   | S. Rigou "Ancient Giant viruses discovered through permafrost metagenomics"   |  |  |
| 11h15   | N. Martin "Impacts of agro-pastoral societies on biodiversity: palaeogenomic, palaeoecological and archaeological approaches"                           |  |  |
|   | 11h15-11h35 Coffee Break (Barnum)   |  |  |
|   | Monitoring of ecosystems functioning and health  Chair: Stéphane Boyer  |  |  |
| 11h35   | Featured speaker  S. Alizon "Results on longitudinal follow-ups of vaginal microbiota in young women in the PAPCLEAR study!"                            |  |  |
| 12h05   | M. Querejeta Coma "Wild bee's pollination in sunflower crops: Who, which and why"   |  |  |
| 12h25   | S. Planes "Revisiting monitoring of biodiversity of coral reefs using metabarcoding and eDNA"   |  |  |
| 12h45   | L. Sire "DNA metabarcoding of passive trap collection media for forest insect biomonitoring"  |  |  |
|   | 13h05-14h15 Lunch Break (Barnum)  |  |  |
| Exploring ecosystems using metagenomics  Chair: Denis Faure |   |  |  |
| 14h15   | Featured speaker S. Arnaud Haond "eDNAbyss: A DNA-based exploration of the largest biome on Earth"  |  |  |
| 14h45   | P. Frémont "Restructuring of genomic provinces of surface ocean plankton under climate change"  |  |  |
| 15h05   | I. Rizos "Tales from the unknown: expanding our idea of taxonomic protist diversity"  |  |  |
| 15h25   | P. H. Oliveira "The anti-phage defensome of TARA Oceans microbial metagenomes"  |  |  |
| 15h45   | L. Dumond "Exploring the lignocellulolytic potential of aerobic and anaerobic microbial consortia derived from termite gut microbiome"                  |  |  |
| 16h05   | Closing speech of the symposium   |  |  |
| 16h25   | End of the symposium  |  |  |

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