

# Provisional Program (2019-06-04)

## HERVs & Disease

Third International Workshop on Human Endogenous  
Retroviruses and Diseases

### **Provisional program**

*5-6, November 2019- Lyon - France*

**TUESDAY 5<sup>th</sup> November 2019**

### **Opening and Introduction**

*Person(s) to be confirmed*

### **Session I**

**New concepts in human genetics**

**Learnings from HERVs and transposable elements**

*Chairperson(s): Cedric Feschotte and Aris Katzourakis (to be confirmed)*

**Aris Katzourakis** - Department of Zoology Evolution and Genomics, University of Oxford, UK  
*(To be confirmed)*

**Cedric Feschotte** - Department of molecular biology and genetics, Cornell University, NY, USA  
*(Title to be defined)*

**Gkikas Magiorkinis** - Medical School, National and Kapodistrian University of Athens, Greece  
Lessons learned from unfixed HERV integrations: does HERV-K proliferate in modern human populations?

**Jainy Thomas** - Department of human genetics, UTAH University, USA  
Diverse HERV proviruses generate structural variation among human genomes

# Provisional Program (2019-06-04)

## Session II

### Neurological Diseases and HERVs

*Chairpersons: Avindra Nath and Patrick Küry*

**Patrick Küry** - Dept. of Neurology, Heinrich-Heine-University of Düsseldorf, Germany  
Glial cell responses upon exposure to human endogenous retroviruses type W envelope protein: Functional implications in neurodegeneration and repair in multiple sclerosis

**David Kremer** - Dept. of Neurology, Heinrich-Heine-University of Düsseldorf, Germany  
Results and perspectives from a 2-years clinical multicenter study in multiple sclerosis with temelimab, a therapeutic IgG4 antibody targeting pHERV-W Envelope

**Avindra Nath** - NINDS-NIH, USA  
HERV-K Envelope pathogenic involvement in Amyotrophic Lateral Sclerosis, an update on pathogenic mechanisms and on therapeutic perspectives

**Julian Gold** - The Albion Centre, Sydney, Australia  
Repurposing HIV therapies to treat Endogenous Retroviral Diseases

**A. Dolei** - Dept of virology, University of Sassari, Italy  
HERV-Kenv profiling in blood of Sardinian patients with amyotrophic lateral sclerosis: a possible biomarker which interacts with “ALS-causative” TDP-43

**Renée Douville** - Department of Biology, University of Winnipeg, Winnipeg, MB, Canada.  
*(To be confirmed)*

**Benjamin Charvet** - GeNeuro-Innovation, Lyon, France  
Biochemical characterization of oligomeric antigens from HERV glycoproteins

**Samia Khoury** - American University of Beirut, Lebanon and Harvard medical school, Cambridge, USA  
pHERV-W antigens detection in MS serum and correlation with clinical data

**Nicole Grandi**- University of Cagliari, Italy  
Contribution of individual HERV loci to the human transcription and their differential expression in multiple sclerosis samples

**Ranjan Ramasamy** - IDFISH Technology, CA, USA  
Molecular mimicry between HERV env proteins and Myelin protein: contributing to the etiology of multiple sclerosis?

# Provisional Program (2019-06-04)

**Camila M Romano** - Virology Lab, LIMHC and Tropical Medicine Institute, São Paulo, Brazil  
Cross-reactivity between myelin oligodendrocyte glycoprotein and human endogenous retrovirus W protein: nanotechnological evidence for the potential trigger of multiple sclerosis

**Pasquale Ferrante** - University of Milan, Italy  
The involvement of HERVs in neurological diseases preliminary data from cerebrospinal fluids

## General discussion

*Discussion Leading Panel: To be determined*

**Conclusions of the day**  
**Patrick Küry, Avindra Nath**

**WEDNESDAY 6<sup>th</sup> November 2019**

## Session III

**Environmental factors involved in HERV activation or upregulation:  
Connecting viral epidemiology and pathogenesis in various diseases**

*Chairperson: Antonina Dolei*

**Branka Horvat** - International center for research in infectiology (CIRI), Lyon University, France  
Human Herpesvirus type 6 transactivates HERV-W expression in glial cells

**Antoine Bertin & Didier Hober** - University of Lille, Faculty of Medicine, CHU Lille, Virology Lab EA3610, Lille, France  
Coxsackievirus B4-mediated upregulation of HERV-W Env transcription in human macrophages and pancreatic cells

# Provisional Program (2019-06-04)

## Session IV

### Neuropsychiatric Diseases and HERVs

Chairperson: **Marion Leboyer**

**Timokratis Karamitros** - Unit of Bioinformatics and Applied Genomics, Hellenic Pasteur Institute, Athens, Greece.

Human Endogenous Retrovirus-K HML-2 integration within RASGRF2 is associated with intravenous drug abuse and modulates transcription in a cell-line model.

**Laurent Groc** - University of Bordeaux, France

HERV-W Envelope protein triggers synaptic and psychotic-like behavioral dysfunctions: from neuroreceptors to preclinical animal model. *(Title to be confirmed)*

**Emanuela Balestrieri** - University of Rome Tor Vergata, Italy

HERV-H attention deficit hyperactivity disorder (ADHD) and/or HERVs in Autism

**Marion Leboyer** - FondaMental Foundation and University Creteil, France

HERV-W Envelope in Psychosis: diagnostic and therapeutic perspectives

## Session V

### Immune dysfunction and HERVs

Chairperson: **Patrice Marche**

**Sandrine Levet** - GeNeuro-Innovation, Lyon, France

Preclinical study of HERV-W involvement in Type 1 diabetes

**Jean Pierre Molès** - INSERM U1058 Pathogenesis and control of chronic infections, Montpellier, France

HERVs/LINEs involvement in the pathogenesis of Psoriasis: therapeutic perspectives

*(Title to be confirmed)*

**François Mallet** - Joint Research Unit Hospices Civils de Lyon – BioMérieux, Lyon, France

Hervs & Sepsis *(Title to be confirmed)*

# Provisional Program (2019-06-04)

## Session VI

### Cancer and HERVs

*Chairperson: François Mallet*

**Reiner Strick** - University-Hospital Erlangen, Germany  
Interrelation of HERVs and inflammation during tumorigenesis

**Claudia Matteucci** - University of Rome Tor Vergata, Italy  
Role of HERVs in cancer stemness and aggressiveness. (Title to be confirmed)

**Serena Delbue** - University of Milan, Italy  
Human endogenous retroviruses (HERV) methylation and expression in colorectal cancer patients

### General discussion

*Discussion Leading Panel: To be determined*

## Conclusions of the Meeting