Provisional Program

HERVs & Disease
Third International Workshop on Human Endogenous Retroviruses and Diseases

Provisional program
5-6, November 2019 - Lyon - France

TUESDAY 5th 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
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?
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

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**WEDNESDAY 6th 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
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)
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