

Draft Scientific Program

**CONFERENCE: 2nd Conference on Large
Animal Models of
Huntington's Disease**

**LOCATION: Chateau Liblice,
Conference Center of the
Czech Academy of Science,
Czech Republic**

DATES: November 17-20, 2013

Sunday, November 17

Arrival and Check-in

18:00 pm

Welcome drink and dinner

Monday, November 18

7:00 to 9:00 am

Breakfast

Morning

Welcome / Introductory Comments by Organizers

9:00-9:10 am

- **Jan Motlik (Institute of Animal Physiology and Genetics, Czech Republic)**

9:10-9:30 am

- **David Howland (CHDI Foundation, USA)**
 - Modeling in HD: The need for large animals for research and development; a CHDI Perspective

Session I. Neurological Disease, Perspectives from Mouse Models and the Human Condition

Chair: Jenny Morton

9:30-10:00 am

- **Jim Gusella (Massachusetts General Hospital, USA)**

Perspectives of a Genetic Disease

10:00-10:30 am

- **Marcy Macdonald (Massachusetts General Hospital, USA)**

Huntington's disease: Genetics-based experimental systems

10:30 – 11:00 am

Coffee Break

11:00-11:30 am

- **Petr Vodicka (Massachusetts General Hospital, USA)**

Manipulating protein degradation pathways in mouse HD models

11:30-noon

- **Marian DiFiglia (Massachusetts General Hospital, USA)**

Using synaptosomes to identify changes in HD mouse brain

Noon to 13:30 pm

Lunch

Afternoon

Session II. Emerging Technologies and Development of Large Animal Models of Disease

Chair: Seung Kwak

13:30 pm to 14:00 pm

- **John R. Swart (Exemplar Genetics, USA)**

Homologous recombination and somatic cell nuclear transfer to generate new knock in HD minipig models

14:00 pm to 14:30 pm

- **Paul Verma (South Australia Research and Development Institute and Monash)**

Genome editing with TALENs and iPSC to engineer Large Animal Disease Models

14:30 pm-15:00 pm

- **Jodi McBride (Oregon National Primate Research Center, USA)**

MRI-guided delivery of AAV1-mHTT into the caudate and putamen of rhesus macaques: working towards a new NHP model of Huntington's disease

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15:00 pm to 15:30 pm

- **Mahmoud A. Pouladi (UBC, Vancouver, Canada and Singapore)**
TALENs to make new HD NHP Knock in Models

15:30-16:00 pm

Coffee Break

16:00 pm to 17:00 pm

Discussion Forum

Discussion Leaders: Seung Kwak and Ralf Reilmann

17:00 pm to 19:00 pm

Session III. Poster Viewing with Drinks

19:00 pm to 22:00 pm

Dinner with accompanying alchemistic program and wine tasting

Tuesday, November 19

7:00 to 9:00 am

Breakfast

Morning

Session IV. Translatable Measures: Patients to Large Animal Models and Back

Chair: Larry Park (CHDI)

9:00 am to 9:30 am

- **Jenny Morton (University of Cambridge, UK)**
Behavioral testing in sheep models of neurodegenerative disease

9:30 am to 10:00 am

- **Nick Perentos (University of Cambridge, UK)**
In vivo electroencephalography and deep brain electrophysiology in sheep models of neurodegeneration

10:00 am to 10:30 am

Coffee Break

10:30 am to 11:00 am

- **Ralf Reilmann (University of Muenster, Germany)**
TRACK-HD minipig

11:00 am to 11:30 am

- **Anthony Chan (Emory University, USA)**
HD transgenic NHP for drug discovery

11:30 am to 12:15 pm

Discussion Forum

Discussion Leaders: Larry Park and Marian DiFiglia

12:15 pm to 13:30 pm

Lunch

Session V. Histopathology and Molecular Phenotyping in Large Animal Models

Chair: Jim Gusella

13:30 pm to 13:50 pm

- **Hana Hansikova (University of Prague, Czech Republic)**
Impaired mitochondrial functions in spermatozoa of TgHD boars

13:50 pm to 14:10 pm

- **Stefan Juhas (Institute of Animal Physiology and Genetics, Czech Republic)**
Immunohistochemistry of F2 generation of minipigs

14:10 pm to 14:30 pm

- **Petr Solc (Institute of Animal Physiology and Genetics, Czech Republic)**
DNA damage response in Huntington disease

14:30 pm to 15:00 pm

- **Susanne Reid (University of Auckland, NZ)**
Molecular and histological phenotypes in HD Sheep

15:00 to 15:30 pm

- **Russell Snell (University of Auckland, NZ)**
Using genetics and complex dataset to discover modifiers and pleiotropic effects

15:30 pm to 16:00 pm

Coffee Break

Session VI. Invasive and Interventional Strategies using Large Animal Models

Chair: Marian DiFiglia

16:00 pm to 16:30 pm

- **Matt Gunis (University of Massachusetts, USA)**
Finding the striatum using MRI-guided CT in the sheep

16:30 pm to 17:00 pm

- **Neil Aronin (University of Massachusetts, USA)**
Preclinical testing of AAV-mediated Htt lowering therapies in HD sheep: Trials and Tribulations

17:00 pm to 17:30 pm

- **Simon Bawden (South Australia Research and Development Institute, Australia)**
Challenges and Solutions for using large animal models in therapeutic testing

17:30 pm to 17:45 pm

Coffee Break

17:45 pm to 18:30 pm

Discussion Forum

Discussion leaders: Jenny Morton and Jodi McBride

18:30 pm to 19:00 pm

Closing Remarks: Jan Motlik

19:00 pm to 21:00 pm

Dinner

Wednesday, November 20

7:00 to 9:00 am

Breakfast

9:00 am to 5:00 pm

- **Closed Meeting of the CHDI Large Animal Working Group**
 - Core members invited only

9:00 am to noon

- **Open Meeting (Morning only) : Young Investigators – Finding Ways to Synergize in Advancing Research for Large Disease Models**