



K O N I N K L I J K E N E D E R L A N D S E
A K A D E M I E V A N W E T E N S C H A P P E N

Academy Colloquium

A new beginning for neurodevelopment disorders: science-based intervention for individual patients

Date: 2-3 October 2019

Venue: Royal Netherlands Academy of Arts and Sciences (KNAW), Het Trippenhuis,
Kloveniersburgwal 29, 1011 JV Amsterdam

Programme

Wednesday 2 October 2019

- 08:30-08:50 Registration and coffee
- 08:50-09:00 Welcome
Matthijs Verhage (VU) & Hilgo Bruining (UMC Utrecht, The Netherlands)
- Session 1: How genetics can inform personalized treatment decisions
and advance trial designs**
- 09:00-09:30 Shared and unique risk factors for psychiatric disorders
Danielle Posthuma (VUmc, The Netherlands)
- 09:30-10:00 Genetic dissection of autism-epilepsy continuum and diversity
Stephen Sanders (UCSF, United States of America)
- 10:00-10:30 The SynGO project: worldwide, evidence-based annotation of synaptic genes
Guus Smit (VU, The Netherlands)
- 10:30-11:00 Coffee break
- 11:00-11:45 Tackling the genetics of neurodevelopmental disorders from risk to resilience
Thomas Bourgeron (Institut Pasteur, France)
- 11:45-12:15 Discussion
- 12:15-13:15 Lunch
- 12:55-13:15 Optional: Guided tour through 'Het Trippenhuis'
- 13:15-14:15 **Keynote: New directions for science-based intervention in
neurodevelopmental disorders**
Steven Hyman (MIT, United States of America)



Session 2: How brain imaging can inform personalized treatment decisions and advance trial designs

- 14:15-14:45 New EEG-biomarkers to predict neuronal deregulation in neurodevelopmental disorders
Klaus Linkenkaer-Hansen (VU, The Netherlands)
- 14:45-15:15 Coffee break
- 15:15-16:00 TBA
Declan Murphy (Kings College, United Kingdom)
- 16:00-16:45 Electrophysiological biomarkers and early predictors of autism
Shafali Spurling Jeste (UCLA, United States of America)
- 16:45-17:15 Discussion
- 18:30-21:30 Conference dinner

Thursday 3 October 2019

- 08:30-09:00 Registration and coffee

Session 3: Using cellular assays to support personalized treatment decisions and advance trial designs

- 09:00-09:45 Psychiatry in a dish: stem cells and brain organoids modeling Autism Spectrum Disorders
Tanja Maria Michel (University of Southern Denmark, Denmark)
- 09:45-10:15 In vitro micro-networks of human neurons to model neurodevelopmental disorders
Niels Cornelisse (VUmc, The Netherlands)
- 10:15-11:00 Patient-own cell models for brain disorders and new therapy design
Kevin Eggan (Harvard/MIT, United States of America)
- 11:00-11:20 Coffee break
- 11:20-11:40 Discussion
- 11:40-12:40 **Keynote: The Genomics of neurodevelopmental disorders: Update and Implications**
Patrick Sullivan (UNC, United States of America)
- 12:40-13:45 Lunch

Session 4: Implementing scientific advancements in diagnostic refinement and advanced trial designs

- 13:45-14:15 EEG driven drug repurposing in ASD
Hilgo Bruining (UMC Utrecht, The Netherlands)



- 14:15-14:45 What We Know and Don't Know
Jeremy Veenstra-Vanderweele (Columbia University Medical Center, United States of America)
- 14:45-15:15 Personalized treatment options for patients with ASD
Lynn Durham (Stalica, Switzerland)
- 15:15-15:40 Coffee break
- 15:40-16:00 Discussion
- Session 5: Panel discussion on implementation**
- 16:00-16:15 TBA
Paul Wang (Simons Foundation, United States of America)
- 16:15-16:30 Organizing large scale research in the omics era
Tyler Brown (Stanley Center/MIT, United States of America)
- 16:30-16:45 TBA
Thomas van Elzakker (NBT Autism, The Netherlands)
- 16:45-17:00 TBA
Joerg Hipp (Roche, Switzerland)
- 17:00-17:30 Discussion
- 18:30-21:30 Conference dinner