#### **PROGRAM SCHEDULE**

Update: 8 th July 2018

### Virginia-Nordic Precision Neuroscience II, 2018: From discovery to translation and innovation

Wednesday 19<sup>th</sup> - Friday 21<sup>st</sup> September 2018 http://www.vnpn.science/



Hosts: University of Oslo, Sunnaas Rehabilitation Hospital, Oslo University Hospital

Venue: Main ('Store') Auditorium at Rikshospitalet / Oslo University Hospital (Gaustad biomedical campus), Oslo, Norway

Conference Hotel: Thon Hotel Ullevaal Stadion (a brisk walk 1 km / one bus stop east of the venue).

**Vision**: The vision of the VNPN is to foster advancement in neuroscience-based precision medicine, including diagnosis and treatment founded on in-depth knowledge of brain mechanisms and their variation depending on genetics/epigenetics and environment. We believe this purpose will be served by a trans-Atlantic collaboration along the Virginia – Nordic axis. The VNPN research alliance builds on convergent research agendas and exceptional complementarity in terms of health care organization, health registries, technology and expertise. VNPN research will boost brain health and give a better, more economical use of funds for research and technology, and foster commerce both in the USA and in the Nordic countries.

Succinct schedule: Speaker slots are 20 min (15 min presentation + 5 min questions/comments/change of speaker).

**Posters**: Participants are encouraged to bring posters (indicate at registration). Posters should be available for viewing throughout the conference. Flash-presentation of posters, discussion and "Best Poster Award" (20<sup>th</sup> September).

**Panel discussions**: "Prospects of innovation for global brain health" (20<sup>th</sup> Sept); "Future of precision neuroscience" (21<sup>st</sup> Sept)

The time schedule may be adjusted (check for updates, press refresh button).

**Abbreviations**: HHMIJ = Howard Hughes Medical Institute Janelia Research Campus, Ashburn, VA; KI = Karolinska Institutet Stockholm; KU = University of Copenhagen; NTNU = Norwegian University of Science and Technology, Trondheim; OUS = Oslo University Hospital; UHel = University of Helsinki; UiB = University of Bergen; UiO = University of Oslo; UV = University of Virginia; VCU = Virginia Commonwealth University; VT = Virginia Tech Carilion.



Auditorium entrance from 'Glass-gata' Rikshospitalet



Thon Hotel Ullevaal Stadion

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#### Wednesday 19 September

- 07:45 Coffee -Refreshments Registration
- 08:00 Welcome by the Head of the local organizing committee, Linda H Bergersen, and US counterpart, Mike Friedlander
- 08:15 Conference opening by the Rector of the University of Oslo, Svein Stølen
- 08:30 Ole Kiehn (KI Stockholm & KU) Featured "Neural networks of locomotion implications for precision neuroscience"
- 09:00 Aarno Palotie (UHel) "Using population isolates to unravel the genetics of severe mental disorders"
- 09:20 Anders Børglum (iPSYCH & Aarhus Univ) "Identification and functional characterization of risk genes in psychiatric disorders"
- 09:40 Coffee Refreshments Poster viewing
- 10:00 Anders Nykjær (Lundbeck Foundation Res Center & Aarhus Univ) "Regulated sortlin shedding balances synaptic input and emotional state"
- 10:20 Ingrid Åmellem (NTNU & UiO) "A critical period for antidepressant-induced acceleration of neuronal maturation in adult dentate gyrus"
- 10:40 Jan Haavik (UiB) "Neuromodulators, neuropsychiatric disorders and metabolic dysregulation"
- 11:00 René Huster (UiO) "Neuromodulation of cognition: basic research and clinical applications"
- 11:20 Kenneth Hugdahl (UiB) "A precision neuroscience approach to auditory hallucinations in schizophrenia"
- 11:40 Lunch
- 13:00 Nils Eiel Steen (UiO) "Inflammation and genetics in major psychiatric disorders and cognitive impairment"
- 13:20 Magnar Bjørås (OUS & UiO & NTNU) Featured "Impact of oxidized DNA bases on brain function"
- 13:40 Charalampos Tzoulis (UiB) "Abnormal mitochondrial DNA maintenance in Parkinson's disease"
- 14:00 Evandro Fei Fang (Ahus & UiO) "Mitophagy in neurodegeneration and aging"
- 14:20 Coffee Refreshments Poster viewing
- 14:40 Edvard I Moser (Nobel Laureate NTNU) Featured "Neural coding of space and time"
- 15:00 Lene Juel Rasmussen (Center of Healthy Aging, KU) Featured "mDNA in precision neuroscience"
- 15:20 Morten Scheibye-Knudsen (KU) "The discovery of a new neurodegenerative premature aging disease"
- 15:40 Gulayse Ince-Dunn (UHel) "Developing targeted therapy for mitochondrial disorders"
- 16:00 Vilhelm Bohr (Natl Inst on Aging NIH & KU) Featured "NAD<sup>+</sup> in disease and aging: molecular mechanisms and implications for precision neuroscience"
- 16:20 Christer Betsholtz (Uppsala University & KI) Featured "Mural cells that regulate cerebral microvessels"
- 16:40 Coffee Refreshments Poster viewing
- 17:00 David Attwell (University College London) "Control of brain blood flow by pericytes in health and disease"
- 17:20 Linda H Bergersen (UiO & KU) "Exercise benefits the brain through the lactate receptor HCAR1"
- 17:40 Asta Håberg (NTNU) "Web-based testing of cognitive function combined with MR and health data in population cohorts"
- 18:00 Stephen M LaConte (VT) "Advanced analysis of brain activity-behavior relations"
- 18:20 Mark Witcher (Carilion Clinic VT) "Neurological implications of astroglial networks"
- 18:40 End of lectures
- 19:30 Reception and Buffet at the Oslo City Hall (venue of the Nobel Peace Prize ceremony), hosted by the Mayor of Oslo



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### **Thursday 20 September**

- 07:45 Coffee Refreshments Poster viewing
- 08:00 Espen Dietrichs (Rikshospitalet OUS) "Current trends in neurology"
- 08:20 Hanne F Harbo (Rikshospitalet OUS & Norwegian Brain Council) "National brain health strategy"
- 08:40 Anne Hege Aamodt (OUS & Norwegian Neurological Association & Norwegian Brain Council) "National brain health strategy"
- 09:00 Bjarte Reve (NNN) "Nansen Neuroscience Network knowledge transfer for innovation"
- 09:20 Coffee Refreshments Poster viewing
- 09:40 Panel discussion "Prospects of innovation for global brain health"
- 10:00 Introduction: Sharon Hrynkow (Sen VP, CTD Holdings; former executive at NIH, US State Dept, and President, Global Virus Network)
- 10:20 Moderator: Tor Haugstad (Neuroscience Chair Sunnaas Rehabilitation Hospital)
- 10:40 Clive Bramham (UiB) "Arc protein: a highly specialized master organizer of long-term synaptic plasticity and cognition"
- 11:00 Stein Andersson (UiO) "Modulation of sensory evoked potentials as a non-invasive method to study LTP-like neural plasticity"
- 11:20 Kai Kaila (Neurosci Center Uhel) "Influence of vasopressin on hippocampal interneurons during birth and birth asphyxia"
- 11:40 Lunch
- 13:00 Flash presentations of posters
- 13:20 4 minutes 2 slides presentations of each poster
- 13:40 Moderated by organizer task force
- 14:00 Discussions
- 14:20 Voting for best poster (award at Dinner)
- 14:40 Coffee Refreshments Poster viewing
- 15:00 Harald Sontheimer (VT) "The role of perineuronal nets in epilepsy"
- 15:20 Torkel Hafting Fyhn (UiO) "Perineuronal nets and brain plasticity"
- 15:40 Tormod Fladby (UiO Inst of Clinical Medicine) Featured "Early diagnosis of Alzheimer's disease"
- 16:00 Farrukh A Chaudhry (UiO) "Molecular mechanisms in neurodegeneration and delirium"
- 16:20 Rory McQuiston (VCU) "Hippocampal circuitry and early tau pathology"
- 16:40 Coffee Refreshments Poster viewing
- 17:00 George Bloom (UV) Featured "Alzheimer's disease as an mTORopathy"
- 17:20 Ingar Olsen (UiO) "Oral infection and Alzheimer's disease"
- 17:40 Vidar Gundersen (Rikshospitalet OUS & UiO) "Transmitter co-release"
- 18:00 Mart Saarma (UHel) "Developing new disease modifying treatment for Parkinson's disease"
- 18:20 Mathias Toft (Rikshospitalet OUS) "Genetic risk in Parkinson's disease"
- 18:40 End of lectures
- 20:00 VNPN Festive Dinner, at Voksenåsen Center for Swedish-Norwegian Cooperation Terje Lømo (UiO) *After-Dinner-Speaker* "The discovery of LTP"



Voksenåsen: Dining room view over Oslo Fjord

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### Friday 21 September

- 08:45 Coffee Refreshments Poster viewing
- 09:00 Tomas Björklund (Lund University) "Synthetic viruses for precision therapies in brain disorders and for mapping of synaptic connectivity"
- 09:20 Erlend A Nagelhus (UiO) "Astrocytes and aquaporins in brain extracellular milieu control"
- 09:40 Sarah Kucenas (UV) "The role of glia in the development, maintenance and regeneration of the nervous system"
- 10:00 Stephanie Robel (VT) "Glial cells as drivers of neuronal pathology"
- 10:20 Karolina R Skagen (Rikshospitalet OUS) "Targeted anti-inflammatory treatment for ischemic stroke"
- 10:40 Coffee Refreshments Poster viewing
- 11:00 Kristian Bernhard Nilsen (Rikshospitalet OUS) "Precision medicine for pain disorders"
- 11:20 Inge Petter Kleggetveit (Rikshospitalet OUS) "The role of C-nociceptors in peripheral neuropathic pain"
- 11:40 Preet Bano Singh (UiO) "Cortical changes associated with smell, taste and pain disturbances in humans"
- 12:00 Jean-Luc Boulland (OUS & UiO) "A comprehensive translational approach to functional recovery after spinal cord injury"
- 12:20 Michael J Friedlander (VT) Featured "Synaptic plasticity in learning and injury"
- 12:40 Lunch
- 14:00 Kristine B Walhovd (Dep Psychology UiO) "Lifespan changes in brain and cognition"
- 14:20 Greg Valdez (VT) "Maintaining healthy synapses"
- 14:40 Michael Fox (VT) "Shedding new light on mechanisms that drive visual circuit development"
- 15:00 Thomas Espeseth (UiO) "The locus coeruleus norepinephrine system in attention and effort"
- 15:20 Ole Petter Ottersen (KI Stockholm) Featured "Medical research and precision neuroscience at Karolinska Institutet"
- 15:40 Coffee Refreshments Poster viewing
- 16:00 Panel Discussion: Ottersen, Friedlander, Walhovd, Zwart, and others "Future of Precision Neuroscience"
- 16:20 Moderation and summing up: Clive Bramham (President Norwegian Neuroscience Society)
- 16:40 End of conference

