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

Wednesday 19th - Friday 21st September 2018
http://www.vnnpn.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 1.5 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 (Abstract by 1st Sept). Posters should be available for viewing throughout the conference. Flash-presentation of posters, discussion and "Best Poster Award" (20th September).

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

**Program committee & Task force:** Linda H Bergersen (Oslo & Copenhagen, Chair), Clive Bramham (Bergen), Mike Friedlander (Roanoke VA), Tor Haugstad (Oslo), Hal Irvin (Roanoke VA), Jon Storm-Mathisen (Oslo)

*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/VTC = Virginia Tech / Virginia Tech Carilion.
**Update: 18th September 2018**

**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 and Vice-Rector for Research and Innovation, Per Morten Sandset

08:30 Ole Kiehn (KI Stockholm & KU) **Featured** "Circuits for locomotion"

09:00 Aarno Palotie (UHel) "Using population isolates to unravel the genetics of severe mental disorders"

09:20 Anders Børglum (iPSYCH & Aarhus Univ) "Identification of risk genes in psychiatric disorders using a nationwide Danish population cohort"

09:40 Coffee - Refreshments - Poster viewing

10:00 Bjarte Reve (NNN) "Nansen Neuroscience Network: From neuroscience research to innovation"

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** "Modulation of cognitive function and behaviour by oxidative DNA base lesion repair"

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 Juul 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 (NatI Inst on Aging NIH & KU) **Featured** "DNA damage signaling to mitochondrial dysfunction in neurodegeneration and aging"

16:20 Coffee - Refreshments - Poster viewing

16:40 Christer Betsholtz (Uppsala Univ & KI) **Featured** "Cellular interactions and heterogeneity in the blood microvasculature"

18:00 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 End of lectures. **Bus transport** from Rikshospitalet (Main Entrance) to the City Hall

Busses stop 250 m from entrance, see Map. Also shows Nationaltheatret station, easiest way to get back, via lines 4 or 5

19:00 Reception and Buffet at the Oslo City Hall (venue of the Nobel Peace Prize ceremony), hosted by the Mayor of Oslo

**VNPN registees will receive official invitation on email. Please bring this (on phone or as printout) and ID card.**
Update: 18th September 2018

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) "NorClinBrain - a Norwegian Centre for Clinical Treatment and Research on CNS Disorders"

08:40 Anne Hege Aamodt (OUS & Norwegian Neurological Association & Norwegian Brain Council) "Brain health promotion - opportunities and priorities"

09:00 Introduction to Panel discussion: Sharon Hrynkow (Sen VP, CTD Holdings; former executive at NIH, US State Dept, and President, Global Virus Network)

09:20 Coffee - Refreshments

09:40 Panel discussion: Dietrichs, Harbo, Aamodt, Hrynkow, Trestman and others "Prospects of innovation for global brain health"

Featured Panelist: Robert T Trestman (Chair, Psychiatry and Behavioral Medicine, VTC) "Beyond symptom suppression: The emerging transformation of psychiatry"

10:00 Moderator, summing up: Tor Haugstad (Neuroscience Chair Sunnaas Rehabilitation Hospital)

10:30 Short intermission

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. ('Best Poster' award at Dinner)

14:20 Coffee - Refreshments - Poster viewing

14:40 Mark Witcher (Carilion Clinic VTC) "Modulation of cognitive networks"

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"

16:20 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 late-onset Alzheimer's disease"

17:40 Vidar Gundersen (Rikshospitalet OUS & UiO) "Brain inflammation and Parkinson's disease"

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. Bus transport from Rikshospitalet (Main Entrance) to Voksenåsen

19:30 VNPN Festive Dinner, at Voksenåsen – Center for Swedish-Norwegian Cooperation

Terje Lemo (UiO) After-Dinner-Speaker "The discovery of LTP"

23:30 Return bus transport to Thon Hotel / Ullevaal Stadion
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) "Brain drainage of waste and glial cell activity during sleep"
09:40 Sarah Kucenas (UV) "The role of glia in the development, maintenance and regeneration of the nervous system"
10:00 Stefanie Robel (VT) "Targeting astrocytes in post-traumatic epilepsy"
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 "Dynamic synaptic plasticity states in the neocortex in development and after injury"
12:40 Lunch
14:00 Kristine B Walhovd (Dep Psychology UiO) "Set to change? Factors influencing neurocognitive trajectories and plasticity through the lifespan"
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 Louis Scheffer (HHMI/Janelia) "Extracting and modeling circuits down to the neuron and synapse level in an entire brain: high throughput EM in the fruit fly"
15:40 Ole Petter Ottersen (KI Stockholm) Featured "Medical research and precision neuroscience at Karolinska Institutet"
16:00 Coffee - Refreshments
16:20 Panel Discussion: Friedlander, Kucenas, Ottersen, Walhovd, Zwart, and others "Future of Precision Neuroscience"
16:40 Moderation, summing up: Clive Bramham (President Norwegian Neuroscience Society)
17:00 End of conference
VNPN
Virginia-Nordic Precision Neuroscience 2018
From discovery to translation and innovation
19-21 September
Venue: Main Auditorium, Rikshospitalet / Oslo University Hospital
Oslo, Norway

Hosts:

Oslo University Hospital
University of Oslo
Sunnnaas Rehabilitation Hospital
Heartily welcome to **VNPN 2018**!

**Wi-Fi in Auditorium**
1. Open Wi-Fi: **HelseSorost**
2. Secure Wi-Fi: **Eduroam**
   - Username: **guest992**
   - Password: **Neuro conf oslo**

**Presentations**
Please email your presentation files to ingrid.amellem@odont.uio.no as soon as possible (if not done already). Please contact her at the latest during the break before your talk. For the **Flash** Presentations of Posters, Ingrid will make a joint file to avoid loss of time.

**Recordings**
Slides, sound and video will be recorded by the University of Oslo, to make the sessions freely available to the public after the conference. (This was also done for the first VNPN conference in Roanoke, Virginia, 2016 https://www.youtube.com/playlist?list=PLD91YAh8r5ffK3zTVn4oF8pfTxCtItJf)

However, as *unpublished material is presented*, some speakers have asked that their presentations should *not* be made publicly available. Because of this, *unauthorised recordings or snapshots of slides are not permitted*.

Please respect these regulations and also avoid bringing foods and beverages into the Auditorium.

**Conference Booklet**
Abstracts of Talks and Posters are available on the conference web site www.vn pn.science during the meeting. After the meeting, a Conference Booklet with written conference material will be compiled and published at the web site with an ISBN.

**Refreshments & Lunch**
Refreshments are served right outside the Auditorium during the breaks.
Lunch is served in the Canteen right across the corridor (restricted to registered delegates).
Featured Key-Note Speaker: Nobel laureate Edvard I Moser (NTNU, Trondheim).

Organizers' task-force:
Linda H Bergersen (Oslo & Copenhagen, Chair), Clive Bramham (Bergen), Mike Friedlander (Roanoke VA), Tor Haugstad (Oslo), Hal Irvin (Roanoke VA), Jon Storm-Mathisen (Oslo)

Adviser on Transatlantic Scientific and Industrial Collaboration:
Jostein Mykletun, PhD, Norwegian Consul General & High North / Arctic Ambassador (ret)

Sponsors include:

- UiO: Life Science
- Norwegian Health Association
- Nansen Neuroscience Network
- The Kavli Foundation USA
- The Research Council of Norway
- The Norwegian Academy of Science and Letters
- Senter for svensk-norsk samarbeid
- The City of Oslo
- Karolinska Institutet
- Virginia Tech
- Carilion Clinic
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