



ONWAR ANNUAL MEETING 2013

Program Thursday November 28th

Parallel sessions:

-  A = Big lecture hall [room 30] ▪ Daychair: Han de Jong
-  B = Kapelzaal [room 16] ▪ Daychair: Emmeke Aarts

09.00 – 09.45 Registration/coffee&tea

09.45 – 09.55 Welcome by day chair @ big lecture hall

10.00 – 11.15 **Session 1A: Addiction and motivation ▪ Chair: Louk Vanderschuren**

1. Roeland Struik

mGluR5 receptors and the mPFC in spontaneous recovery of nicotine seeking.

2. Rahul Pandit

Physiological alterations upon withdrawal from an obesogenic diet: implications for dieting.

3. Han de Jong

Activating specific neuronal pathways in vivo using DREADD technology.

4. Ozlem Korucuoglu

Neuronal response to alcohol tastes in adolescence: the role of OPRM1.

Session 1B: Glial disease and injury ▪ Chair: Vivi Heine

5. Oscar Stassen

Glial response to mechanical injury.

6. Nawal Bahia el Idrissi

Complement inhibition is neuroprotective in a mouse model of Leprosy.

7. Melissa Lopes Pinheiro

Ceramide enriched membrane domains are important for leukocyte migration through the endothelium.

8. Marloes Prins

CCL2 and CCR2 in hippocampal lesions of Multiple Sclerosis patients.

11.15 – 11.30 Break

11.30 – 13.00 **Session 2A: Alzheimer's disease** ▪ Chair: Elly Hol

9. Judith van der Harg

The metabolic syndrome and Alzheimer's disease: The UPR as mechanistic connection.

10. David Hondius

Changes in the human hippocampal proteome during Alzheimer's disease.

11. Rebecca Steketee

Focal hypoperfusion in early dementia as assessed by arterial spin labeling magnetic resonance.

12. Susanne van Veluw

Cerebral cortical microinfarcts at 7Tesla MRI in patients with early Alzheimer's disease.

Session 2B: Cognitive control ▪ Chair: Tommy Pattij

13. Rolinka Schippers

Effects of deep brain stimulation on drug self-administration and impulsivity in rats.

14. Marcia Spoelder

Individual vulnerability to alcohol intake in relation to decision-making.

15. Ioannis Kramvis

Hyperactivity, perseveration and increased responding during attentional rule acquisition in the Fragile X mouse model.

16. Judy Luigjes

Risk processing in obsessive-compulsive disorder: Differential role for insula in risk-averse patients.

17. Carly Sweegers

Memories for schema-congruent items are less detailed.

13.00 – 14.00 Lunch

14.00 – 14.45 Blitz I

14.45 – 15.15 Printer workshop @ Kapelzaal

15.15 – 16.30 Poster Session I & Printer Market

16.30 – 18.00 Parallel session oral presentations:

Session 3A: Neural excitability & plasticity 1 ▪ Chair: Sabine Spijker

18. Anna Karataeva

C-terminal interactors of the AMPA receptor auxiliary protein Shisa9.

19. Jasper Stroeder

Shisa6 is an AMPA-receptor modulatory protein.

20. Marta Ruiperez-Alonso

AMPA receptor modulatory proteins regulate receptor kinetics, long term plasticity and hippocampal neuronal network synchronization.

21. Nikhil Pandya

Regulation of AMPA receptor by AMPA receptor interacting protein: Pancortin.

22. Karen Carney

Proteomic analysis of perisynaptic astrocytes in synaptic plasticity.

Session 3B: Novel Methods ▪ Chair: Joost Verhaagen

23. Emmeke Aarts

The problem of dependency: how to avoid spurious effects and increase power in neuroscience studies.

24. Loek van der Kallen

Using CAGE-sequencing to measure hippocampal gene expression in NFIL3 Knock-Out mice during consolidation and reconsolidation.

25. Stefan Hoyng

Developing an immunologically-inert reverse tetracycline controlled lentiviral vector for gene therapy.


26. Joachim Kutzera

Finding protein-protein interactions in immunoprecipitation data.

- 18.00 Dinner
- 20.00 Evening program: Stand up for Science!

Program Friday November 29th

Parallel sessions:

 A = Big lecture hall [room 30] ▪ Daychair: Mohit Dubey

 B = Kapelzaal [room 16] ▪ Daychair: Daniela Herrera Moro

8.00 – 9.15 Breakfast

9.15 – 10.00 Blitz II

10.00 – 10.10 20 years ONWAR PhD retraite

10.10 – 11.10 Poster session II

11.10 – 12.25 **Session 4A: Memory, depression and stress** ▪ Guus Smit

27. Sanne Menning

Pretreatment fMRI during planning and memory in breast cancer patients.

28. Myrle Stouten

Late effects of cancer treatment on cognitive function and white matter in breast cancer survivors.

29. Juan Zhao

Depression and suicide.

30. Roel Mocking

Fatty acid metabolism in psychiatry.

Session 4B: Sensory and motor systems – visual cortex ▪ Chair: Alexander Heimel

31. Tafadzwa Sibindi

On the linearity of optokinetic and vestibulo-ocular reactions to novel sum of sine stimuli: What does the compensatory eye movement system really care about?

32. Bruno Dagnino

Feedforward and feedback propagation of electrically induced activity in the visual cortex.

33. Niels Kloosterman

Pupil dilation reflects specific perceptual alternations in a bistable visual illusion.

34. Roy Cox

Information processing during sleep.

12.25 – 13.25 Lunch

13.25 – 15.00 **Session 5A: Neural excitability & plasticity 2** ▪ Chair: Gerard Borst

35. Margherita Farina

Neuronal dense core vesicles capture and release.

36. Julia Kurps

Vti1a promotes the biogenesis of large dense core vesicles in chromaffin cells.

37. Johan Winnubst

Spontaneous network activity during development drives the clustering of temporally-related synaptic inputs.

38. Cillian King

Characterization of a Novel Synaptic E3-ligase.

39. Tiantian Wang

CACNA1A channel activation raises basal $[Ca^{2+}]_i$ and generates a synaptic gain of function in a model of severe familial hemiplegic migraine.

Session 5B: Parkinson's – dopamine ▪ Chair: Ronald van Kesteren

40. Jesse Veenvliet

Molecular basis for dopaminergic neuron diversity.

41. Karlijn Doorn

Microglial activation beyond the substantia nigra in Parkinson's disease.

42. Niels Gerrits

Cognitive dysfunction in Parkinson's disease.

15.00 – 15.15 Break

15.15 – 16.15 Swammerdam Lecture by **Gert Holstege** (Center for Uroneurology, Faculty of Medical Sciences, University of Groningen)

The central nervous system control of pelvic organs.

16.15 – 16.45 Awards & Closing remarks

Blitz session I – Thursday 28 November 2013, 14.00 – 14.45

Willemieke Kouwenhoven
Simone Mesman
Peter Quinn
Wendy Timmermans
Girish Kedar
Mariette Lenselink
Fatima Farzana
Leanne Schmitz
Mohit Dubey
Eline Zaijer
Eva Naninck
Lara Wierenga
Iris Overwater
Marijn Schouten
Iván Chavarría-Siles
Daniela Camillo
Jorrit Montijn
Andrius Plauska
Danique Jeurissen
Daniela Herrera Moro Chao
Bart te Lindert
Koen van Lith
Yan Su

Blitz session II – Friday 29 November 2013, 9.15 – 10.00

Maria Renner
Enqi He
Mieke de Jager
Arie van Vliet
Stephanie Dooves
Nathaly Espitia Pinzón
Veerle Eggens
Sovann Kaing
Josta Kevenaar
Marta Esteves da Silva
Hui Xiong
Tanja Su
Judy van Hemmen
Mustafa Hamada
Sizar Kamar
Gerben Klein
Yoshiyuki Onuki
Marit Arp
Devavrat Vartak
Joerg Schreiber
Berend van der Wildt
Richard Hardstone
Anouk Schrantee

POSTER SESSION I: THURSDAY 28 NOVEMBER 2013, 15.15-16.30

Group A: Development: Transcription factors

1. Willemieke Kouwenhoven

Homeodomain transcription factor Engrailed 1 plays a dominant role in early embryonic mid-hindbrain patterning

2. Callan Attwell

Combinatorial expression of regeneration associated transcription factors in a high throughput F11 neurite outgrowth assay

3. Prisca Leferink

The development of genetically fixed human iPSC-derived GPCs for a transplantation therapy for VWM

Laura van Velzen

Erik van Heesbeen

Group C: Development: iPSCs

1. Simone Mesman

Mesodiencephalic dopaminergic (mdDA) neuronal specification is independent of GLI2A-mediated SHH-signaling and under the direct influence of canonical WNT signaling

2. Shashini Munshi

Ca²⁺ imaging of 3D human neurons derived from patient-specific induced pluripotent stem cells cultured in microfluidics-based chambers

3. Dwayne Holmes

Generation of iPSCs from patients with 4H syndrome

4. Anna Bennis

Toward stem cell based therapy for diseases which affect the retinal pigment epithelium

5. Peter Quinn

Gene expression analysis of Crb1Crb2 KO mouse retinas using RNASeq

Iliana Michailidou

Martijn Sierksma

Group E: Synaptic function

1. Wendy Timmermans

Hormonal regulation of synaptic transmission and structure

2. Girish Kedar

The Synaptotagmin-1 R398,399Q mutation known to block exocytosis supports normal docking of large dense core vesicles

3. Mariette Lenselink

Strain differences in presynaptic function: proteomics, ultrastructure and physiology of hippocampal synapses

4. Fatima Farzana

The role of Neurobeachin and SAP102 Interaction in the synapse

Quentin Bourgeois

Claudia Persoon

Group G: Cellular mechanisms I

1. Wobbie van den Hurk

Why do mitochondria carry AMPA receptors?

2. Lianne Schmitz

Identification of the novel AMPAR interacting protein shisa 7

3. Anne-Lieke van Deijk

The role of glial lipid metabolism in neuronal plasticity: towards dietary modulation of synaptic function

4. Mohit Dubey

A mouse model for MegalencephalicLeukoencephalopathy with subcortical Cysts

5. Lana Osborn

Disturbances in astrocytic modulation of synaptic efficacy in Alzheimer's

Group I: Neuroimaging: function networks

1. Maik Derksen

Effects of deep brain stimulation on functional connectivity in rat brain circuits

2. Rozanna Meijboom

Increased default mode network activation in patients with phenocopyfrontotemporal dementia as measured with resting state functional MRI

3. Louise Pape

Distinct resting state network correlates for specific dimensions of adolescent psychopathic traits

4. Ruben Schmidt

Structural motor network alterations and changed functional dynamics in ALS

Lianne Scholtens

Group K: Disorders of the nervous system: dopamine

1. Linde Boekhoudt

DREADD-regulated modulation of dopaminergic activity in TH-Cre rats – modelling psychiatric endophenotypes?

2. Eline Zaaijer

Naltrexone has no effect on body weight, food intake, nocturnal locomotor activity and striatal dopamine transporter availability in rats

3. Sanne Verkooijen

Determinants of increased BMI and blood pressure in bipolar disorder

4. Iván Chavarría-Síles

Link between schizophrenia and white matter integrity is mediated by myelination-related genes

5. Ruud van Zessen

Optogenetic modulation of ventral tegmental area dopaminergic and GABAergic neurons affects cue-reward seeking

Catia Silva

Group M: Development& stress

1. Manila Loi

Post-weaning treatment with mifepristone reverses maternal deprivation-induced suppression of neurogenesis

2. Eva Naninck

The role of nutritional and epigenetic programming in the lasting effects of chronic early-life stress on hippocampal neurogenesis and function

3. Lara Wierenga

Development of basal ganglia, hippocampus, amygdala and cerebellum from age 7 to 24

Bart Appelhof

Iris Wever

Ferdy Cayami

Group O: Epilepsy I

1. Iris Overwater

Randomised clinical trial of rapamycin in children with TSC and intractable epilepsy (RATE-trial)

2. Valentina Iori

miR146a-mediated control of brain inflammation: a new therapeutic opportunity in epilepsy

3. Marijn Schouten

Proteomics analysis of kainic acid-induced changes in the adult mouse dentate gyrus reveals microRNAs as regulators of hippocampal neural stem cell apoptosis

Daniel Twohig

Group Q: Visual processing

1. Jorrit Montijn

Visual awareness in mouse V1

2. Premnath Thamizharasu

Thalamic input in adult visual plasticity

3. Danique Jeurissen

Object-based attention spreads at multiple spatial scales

Guido Meijer

Group S: Early visual processing

1. Mehran Ahmadlou

Visual contextual modulation in the mouse superior colliculus

2. Daniela Camillo

Two-photon calcium imaging of surround suppression in mouse V1

3. Andrius Plauska

Tuning to interaural timing differences of principal neurons in the gerbil medial superior olive

Javier EmperadorMelero

Group U: Neuroendocrinology

1. Anneloes Opperhuizen

Effects of daily timing of food intake on the hypothalamic orexin system

2. Daniela Herrera Moro Chao

Hypothalamic and Brainstem structures involved in the beneficial effects of iminosugars on metabolic syndrome

3. Zhi Zhang

Effects of local hypothalamic thyrotoxicosis on the hypothalamo-pituitary-thyroid (HPT) axis and energy metabolism

4. Kim van Elst

The role of dietary fatty acids in the pathogenesis and treatment of autism spectrum disorders

Kit-Yi Yam

Group W: Cognition & Behavior

1. Bart te Lindert

Systematic evaluation of alertness promoting factors in health and disease

2. Koen van Lith

Influencing hampered fear conditioning by an attention intervention

3. Mendelt Luinenburg

Inhibition of mPFC pyramidal cells in attention

4. Lotte Houtepen

The acute stress response in Bipolar Disorder

Jorim Tielbeek

Josjan Zijlmans

Abdel Abdelgabar

Group Y: Neuroendocrinology & Neuroimmunology

1. Yan Su

Effects of adrenalectomy on day/night rhythms in gene expression in rat suprachiasmatic nucleus, paraventricular nucleus of the hypothalamus and white adipose tissue

2. Bieneke Janssen

Synthesis of [¹¹C]A-740003 as PET tracer for P2X7 receptor imaging for in vivo study of activated microglia

3. Marleen van Coevorden

Autoimmune encephalitis: a search for novel neuronal surface autoantigens

4. Renske Raaphorst

Synthesis of an ¹⁸F-labelled analogue of the P-glycoprotein substrate PET tracer verapamil

Hai Yin Hu

POSTER SESSION II: FRIDAY 29 NOVEMBER 2013, 10.10-11.10

Group B: Development: brain patterning

1. M.S. Hamada

Grey matter demyelination causes anomalous action potential initiation

2. Gertjan Houwen

Characterization of spontaneous network activity in the mouse developing cortex in vivo

3. Martijn Kool

A crucial role for CaMKII in survival

4. Kim Dekker

Improving sleep by synchronizing the clocks

Janske Willems

Ananya Chakraborty

Alexandra Leighton

Group D: Visual system

1. Marlou Kooiker

Assessment of visual orienting responses in children with cerebral visual impairment: methodology and reliability

2. Gijs Thepass

Saccadic reaction times and retinal responsiveness as a measure for visual improvement following cataract surgery

3. Wisse van der Meijden

The effect of red and blue light exposure on pupil diameter and vigilance

4. Paul Mertens

Behavioral paradigm for in vivo electrophysiology of audiovisual integration in the rat

Jovana Kovacevic-Divljakovic

Group F: Synaptic plasticity

1. Cátia Frias

Two-photon microscopy of dynamic changes in inhibitory axons induced by Sema4D

2. Niels Reinders

Amyloid beta selectively targets inactive synapses

3. Maria Renner

Synaptic AMPA receptor plasticity in hippocampal memory formation

4. Enqi He

Post-docking role of Munc18 in synaptic vesicle release

Group H: Epilepsy II

1. Jeffrey Stedehouder

Modelling autism in the Caspr Ex22 mouse

2. Pascal Bielefeld

A possible role for glucocorticoids in seizure development

3. Sicco de Knecht

The balance between excitation and inhibition in the mouse hippocampus

Laura-anne Grimbergen

Group J: Alzheimer's disease

1. Mieke de Jager

The blood-derived transglutaminase Factor XIII forms complexes with Abeta and is both present and catalytically active in Abeta deposition in cerebral amyloid angiopathy

2. Casper de Boer

Differences in visuomotor profile between Alzheimer's and Parkinson's disease patients

3. Andrea Rosenberger

Altered distribution of EphA4 in hippocampal brain tissue of patients with Alzheimer's disease correlates with tau pathology

4. Sandeep Golla

Quantification of [18F]DPA-714 binding in the human brain: initial studies in healthy controls and Alzheimer's disease patients

Ulf Schnabel

Group L: Neurodegenerative disorders

1. Arie van Vliet

The role of Wnt5a in peripheral nerve regeneration

2. Céline Heldring

Increased hippocampal extracellular matrix causes cognitive decline in a mouse model of Alzheimer's disease

3. Stephanie Dooves

Vanishing White Matter-mutated astrocytes impair oligodendrocyte maturation in vitro

4. Nathaly Espitia Pinzón

Astrocyte-derived TG2 contributes to ECM production and aggregation, and cell adhesion

Mona Irrmischer

Eline Willemse

Group N: Genetic disorders

1. Eline Hamilton

Hypomyelination with Atrophy of the Basal Ganglia and Cerebellum (H-ABC): further delineation of genotype and phenotype

2. VeerleEggers

Genotype-phenotype correlations in EXOSC3 mediated pontocerebellar hypoplasia

3. Tatiana Cerveira

Absence of Munc18-1 leads to a condensed Cis-Golgi preceding neuronal cell death

Jolet van de Bree

Ulrike Filp

Group P: Developmental disorders:live-cell imaging

1. Ricardo Paap

oxO6 in control of murine cortical radial migration via regulation of axon guidance

2. Sovann Kaing

FOXO4 involvement in the pathophysiology of aged-related macular degeneration (AMD)

3. Josta Kevenaar

Loss of neuronal transport regulation underlies Goldberg-Shprintzen syndrome

4. Marta Esteves da Silva

Controlled delivery of AMPA receptors-containing recycling endosomes to excitatory synapses

5. Hui Xiong

Hormonal Regulation of AMPA receptor function

Group R: Developmental disorders:neuroimaging

1. Tanja Su

Brain changes and cognitive function in HIV-positives with undetectable plasma HIV-viral load

2. Cheima Bouziane

The effects of Psychotropic drugs On Developing brain (ePOD) study objectives and methods of a neuroimaging study

3. Judith Suttrup

How language can facilitate mentalizing in high functioning autistic adults: an fMRI study

4. Judy van Hemmen

The role of the androgen receptor in the sexual differentiation of the brain: a mental rotation fMRI task in women with CAIS

Rick Wassing

Group T: Visual perception

1. Sizar Kamar

Functional properties of photoreceptors in cultured human retina

2. Gerben Klein

Behavioral paradigm to study visual awareness

3. Mariska van Lier

The role of NF1 in ocular dominance plasticity

Daniel Amado Ruiz

Group V: Learning mechanisms

1. Yoshiyuki Onuki

The interaction between anterior cingulate cortex and cerebellum in the subjective confidence against the memory retrieval

2. Marit Arp

Role of forebrain mineralocorticoid receptors in spatial navigation and fear learning

3. Esther Rummelink

A novel task to assess reversal learning in mice in a home cage environment

4. Devavrat Vartak

Role of neuromodulators in working memory

5. Joerg Schreiber

TRIM3 is a synaptic E3 ubiquitin ligase that regulates hippocampus-dependent learning

Group X: Disorder of the nervous system

1. Hripsime Snkhchyan

ABC transporters P-gp and BCRP are reduced in capillary cerebral amyloid angiopathy

2. Lianne Wisse

Molecular mechanism of Vanishing White Matter

3. Berend van der Wildt

Radiolabeling of a tissue transglutaminase inhibitor

Linda van Keimpema

Swati Arora

Group Z: Learning & behavior

1. Richard Hardstone

Critical-state dynamics of spontaneous oscillations leads to optimal range of evoked responses

2. Jessy Possel

The neural basis of dual task interference

3. Suman Das

Unraveling the mechanistic pathway of trans-cranial direct current stimulation (tDCS) in cerebellar learning

Roel de Haan

Myrthe Ottenhoff

Group AA: Psychiatric disorders

1. Tim Kroon

Cortical network development in a mouse model for intellectual disability

2. Anke Hammerschlag

Functional gene set analysis for Attention Deficit Hyperactivity Disorder (ADHD)

3. Chris Vriend

Reduced dopamine transporter binding predates impulse control disorders in Parkinson's disease

4. Anne Marije Kaag

Differential effects of short- and long-term cocaine use on cortical volume, thickness and surface area

5. Anouk Schrantee

J-difference edited GABA-MRS in regular amphetamine users in the basal ganglia