

Program Annual PhD Meeting - Thursday, 24 November 2011

09:00 – 09:30 Registration/ coffee and tea
09:45 – 09:50 Words of welcome by day chair (Big Lecture Hall)

Parallel Session Information: 2 locations!

Parallel Session A

Location: **Big Lecture Hall (Room 30)**
Didactic comments: **Matt Self**
Day Chair: **Natasha Pasricha**

Parallel Session B

Location: **Kapelzaal (Room 16)**
Didactic comments: **Matthijs Verhage**
Day Chair: **Bart Lubbers**

Sessions:

- 10:00 – 11:15 **Session 1A: Addiction - Chair: Taco de Vries** (Big Lecture Hall)
Nienke Broos
Impulsivity, a treatable risk factor of relapse to cocaine dependence?
Zsuzsika Sjoerds
Family history of alcohol dependence and the development of mood- and anxiety disorders: cognitive and emotional functions in the brain
Janna Cousijn
Neural predictors of problem severity in cannabis users
Ping Gao
Immediate early genes in cocaine self-administration
- 10:00 – 11:15 **Session 1B: Gene Regulation - Chair: Koen Bossers** (Kapelzaal)
Eva Verbeek
Fine mapping seven genes from a GWAS for Major Depressive Disorder
Rubén Saavedra Pascual
Microarray technology to unravel new regeneration-related characteristics of Olfactory Ensheathing Cells
Mattia Maroso
Activation of Toll-like receptor 4 (TLR4) and Receptor for Advanced Glycation End Product (RAGE) signaling contributes to ictogenesis and epileptogenesis
Laura van Berge
Leukoencephalopathy with brain stem and spinal cord involvement and lactate elevation is associated with cell type-dependent splicing of mtAspRS mRNA
- 11:15 – 11:30 Coffee and tea
- 11:30 – 13:15 **Session 2A: Pharmacology - Chair: Matt Self** (Big Lecture Hall)
Elodie Girault
Involvement of the hypothalamic Orexin system in Olanzapine induced metabolic side-effects
Anne Klomp
Lasting effects of chronic fluoxetine treatment on the late developing rat brain: Age-dependent changes in the serotonergic neurotransmitter system
Albertine Scheltema Beduin
Obsessive-Compulsive symptoms in patients with schizophrenia comparing treatment with Clozapine, Olanzapine, Risperidone and no antipsychotics: a naturalistic cross-sectional study of 543 patients
Lianne Schmaal
Effect of modafinil on neural correlates of response inhibition during stop signal task in alcohol dependent men
Susanne Koot
Stress and decision-making in rats: effects of corticosterone

- 11:30 – 13:15 **Session 2B: Imaging - Chair: Klaus Linkenkaer-Hansen** (Kapelzaal)
Joost Verbeek
Initial PET studies in rats with novel radiotracer [¹¹C]D617 and comparison with (R)-[¹¹C]verapamil
Saskia Woudstra
Piccolo/PCLO effect on neural correlates of emotional encoding
Giovanni Piantoni
Sleep deprivation and connectivity: why presenting on the first day of ONWAR is better than on the second
Jeroen Bos
Rat robot: spatial discrimination of multimodal, three-dimensional dynamic agents
Marloes Henckens
Corticosteroid regulation of the human amygdala
- 13:15 – 14:15 Lunch
- 14:15 – 14:45 Blitz Session I (Big Lecture Hall)
- 14:45 – 15:15 Printer Workshop (Kapelzaal)
- 15:15 – 16:15 Poster Session I / Printers market
- 16:15 – 17:30 **Session 3A: Neurodegeneration - Chair: Wiep Scheper** (Big Lecture Hall)
Anna Carrano
Cerebral amyloid angiopathy and blood-brain barrier alterations
Anke Dijkstra
Stage-dependent dopaminergic cell loss in the substantia nigra during Parkinson's Disease
Hyung Elfrink
Rab6 function during ER stress in Alzheimer's disease
Robin Verhaar
Increase in endoplasmic reticulum-associated tissue transglutaminase and enzymatic activation in a cellular model of Parkinson's disease
- 16:15 – 17:30 **Session 3B: Diseases - Chair: Odile van den Heuvel** (Kapelzaal)
Stella de Wit
Response inhibition in OCD patients and their unaffected siblings
Addy van Dijk
Deep brain stimulation in the nucleus accumbens core activates prefrontal monoamine release
Anouk den Braber
White matter differences in monozygotic twins discordant or concordant for obsessive-compulsive symptoms: A combined DTI-VBM study
Elsemarieke van de Giessen
Imaging the dopaminergic system in obesity
- 17:30 – 17:45 Coffee and tea
- 17:45 – 18:45 **Swammerdam Lecture by Prof. Christian Keysers** (Big Lecture Hall)
 Social Brain Laboratory at the Netherlands Institute for Neuroscience (NIN)
 Amsterdam and Department of Neuroscience, UMC, Groningen
From mirror neurons to empathy
- 19:00 – 20:30 Dinner
- 20:30 – 21:30 Evening Program **"Beauty and the Brain"**

Program Annual PhD Meeting - Friday, 25 November 2011

08:00 – 09:00 Breakfast

Location: **Big Lecture Hall**

Didactic comments: **Peter Burbach**

Day Chair: **Stella de Wit**

09:00 – 10:30 **Session 4: Synaptic Transmission – Chair: Casper Hoogenraad**
Tony Cijssouw
Synaptic recruitment of the release machinery component Munc18-1
Arthur de Jong
Target cell dependency of presynaptic properties in hippocampal neurons
Marieke Meijer
Dissecting the molecular interactions of Munc18-1 within the synaptic vesicle secretion machinery
Danielle van Versendaal
Inhibitory synapse turnover in adult ocular dominance plasticity
Marlene Vegh
The aging synapse: synapse proteomic alterations in mouse models of aging

10:30 – 10:45 Coffee and tea

10:45 – 12:15 **Session 5: Electrophysiology - Chair: Christiaan de Kock**

Simon-Shlomo Poil
Novel biomarker of memory: from model to cognition
Timo van Kerkoerle
Laminar profile of cortical waves
Laurens Witter
Processing in the cerebellar nuclei
Fleur Zeldenrust
The reliability of coding in thalamocortical relay cells
Natasha Pasricha
Glucocorticoid pulsatility

12:15 – 13:15 Lunch

13:15 – 13:45 Blitz Session II

13:45 – 15:00 Poster Session II / Coffee and tea / Display Nieuw Amsterdams Peil Initiative

15:00 – 16:15 **Session 6: Receptor Signalling - Chair: Rhiannon Meredith**

Marlies Oostland
Transient expression and function of serotonin 5-HT₃ receptors on glutamatergic granule cells in the early postnatal mouse cerebellum
Rogier Poorthuis
Nicotinic receptor modulation of the prefrontal cortex and attention behaviour
Roxana Kooijmans
Calretinin and parvalbumin positive interneurons express opposite patterns of AMPA receptor subunits in macaque V1
Femke den Boon
Intracellular type-2 cannabinoid receptor activation evokes Ca²⁺-activated Cl⁻ currents in prefrontal cortical pyramidal neurons

16:15 – 16:30 Poster, blitz and oral presentation awards

16:30 – 16:45 Closing remarks

Blitz Session I**24 November 2011, 14:15 – 14:45**

Danai Riga
Alexander Diaz
Marianne Klanker
Martina Moeton
Sarah Burke
Marieke Schouw
Emanuele Zurolo
Julia Meuwese
Celso Henrique Freitas Alves
Lieke Geerts
Regina Kanski
Vasil Mecollari
Caroline Bruinsma
Elizabeth Moloney
Julia Dawitz
Adrian Negrean
Jan-Peter van Wieringen
Pieter Klein
Torben Hager
Annelinde Vandenbroucke

Blitz Session II**25 November 2011, 13:15 – 13:45**

Gregoire Maroteaux
Marie Orre
Sasja Heetveld
Esther Lips
Sarah Janssen
Carlyn Mamber
Katelijne van Oortmerssen
Remi Soleman
Zimbo Boudewijns
Nouk Tanke
Ning Chen
Rocío Díez Arazola
Andrea Goudriaan
Catherine van Engen
Ilse Verweij
Bernard Bloem
Nitish Fagoe
Matthijs Verhoog
Stefan Hoyng

Group A: Addiction

1. **Danai Riga**
The deeper the blues, the higher the booze?
2. **Rolinka Schippers**
Does deep brain stimulation of the nucleus accumbens shell decrease heroin taking and seeking?
3. **Marcia Spoelder**
Development of a model for alcohol addiction in rats

Group C: Cognition 1

7. **Alexander Diaz**
Factor analysis of Resting-State Questionnaire data reveal five modes of cognition during rest
8. **Carly Sweegers**
Recoding with regularities
9. **Marianne Klanker**
Effects of deep brain stimulation in corticostriatal circuitry on dopamine release in the nucleus accumbens
10. **Joost Uilenreef**
Effects of focus and expectancy on processing of nociceptive information in the rat using somatosensory evoked potentials

Group E: Degeneration 1

14. **Judith van der Harg**
The UPR and disturbed glucose metabolism: early events in Alzheimer's disease
15. **Martina Moeton**
Studying the role of Glial Fibrillary Acidic Protein isoforms in astrocytes
16. **Ashutosh Dhingra**
Comparison of induced pluripotent stem cell derived dopaminergic neurons to transdifferentiated dopaminergic neurons
17. **Marta del Campo Milàn**
Transmembrane protein X in early stages of Alzheimer's disease

Group G: Psychiatric Disorders 1

22. **Iván Chavarría-Siles**
Schizophrenia is associated with reduction of the cortical thickness in the Anterior Cingulate Cortex
23. **Sarah Burke**
Otoacoustic emissions: effects of sex hormones on the inner ear
24. **Moran Cohn**
Persistence of childhood antisocial behavior: a functional MRI study

Group I: Receptors

29. **Anna Karataeva**
Identification of interactors of the Shisa family of potential AMPA receptor modulatory proteins
30. **Marieke Schouw**
Pharmacological Magnetic Resonance Imaging (phMRI) in healthy subjects using an i.v. challenge with d-amphetamine
31. **Emanuele Zurolo**
The inflammatory molecules IL-1 α and HMGB1 can rapidly enhance focal seizure generation in rat entorhinal cortex

Group K: Sensory Systems 1

35. **Jesse Veenvliet**
Retinoic acid-dependent and -independent gene-regulatory pathways of Pitx3 in meso-diencephalic dopaminergic neurons
36. **Julia Meuwese**
Does perceptual learning require consciousness or attention?
37. **Celso Henrique Freitas Alves**

CRB2 in retinal development.

Group M: Signaling 1

- 38. Lieke Geerts**
Functional analysis of Tomosyn in the mammalian brain
- 39. Regina Kanski**
Modification of GFAP-isoform expression in neurogenic astrocytes
- 40. Vasil Mecollari**
Neutralization of Semaphorin signaling in the injured spinal cord

Group O: Motor Systems

- 48. Caroline Bruinsma**
Cerebellar function in Angelman syndrome
- 49. Elizabeth Moloney**
AAV6-mediated delivery of neuropilin-1 receptor-bodies to skeletal muscle: a gene therapy strategy to neutralise semaphorin 3A in the G93A-hSOD1 mouse model for ALS
- 50. Floor Buma**
The role of the cerebellum in chronic stroke patienten with upper limb paresis
- 51. Sjik-Jan Zijlstra**
Alpha-synuclein and its role in Parkinson disease

Group Q: Networks 1

- 56. Marta Ruipérez Alonso**
Shisa9 in hippocampal brain oscillations.
- 57. Julia Dawitz**
Activity dependent network development in mental retardation
- 58. Adrian Negrean**
Single-shot action potential detection using two-photon excited membrane potential sensitive dyes
- 59. Borbála Duray**
Neuronal oscillatory changes in an animal model of Parkinson's disease

Group S: Pharmacology

- 63. Luuk van der Velden**
Network structure of the ventral tegmental area
- 64. Jan-Peter van Wieringen**
Characterization of 123I- and 18F-labeled pharmaceuticals for imaging dopamine D2 receptors in high-affinity state
- 65. Pieter Klein**
Synthesis and evaluation of [11C]GMOM analogs for PET imaging of the NMDA receptor

Group U: Behavior

- 70. Emmeke Aarts**
Extracting gene-behaviour relations using longitudinal data obtained through automated home cage testing
- 71. Torben Hager**
The dynamics of conditioned fear behavior in an Automated Home Cage (DualCage) Environment
- 72. Danique Jeurissen**
Object recognition and image parsing

Group W: (f)MRI 1

- 76. Sanne Menning**
Structural, biochemical and functional indices of chemotherapy-induced cognitive deficits in breast cancer patients
- 77. Annelinde Vandenbroucke**
Seeing without knowing: neural signatures of a visual illusion in the absence of report
- 78. Rebecca Steketee**
fMRI as a diagnostic tool for early dementia

Group Y: Glial Cells

- 82. Karen Carney**
Towards identification of astrocyte-expressed genes involved in synaptic plasticity
- 83. Stephanie Dooves**
Transgenic mice showing a Vanishing White Matter phenotype
- 84. Karlijn Doorn**
Region-specific microglia phenotypes in Parkinson's Disease

Poster Session II 25 November 2011, 13:45 – 15:00

Group B: Cognition 2

- 4. Gregoire Maroteaux**
Identification of genotypes and genes that influence avoidance learning in mice
- 5. Roy Cox**
Reactivation of episodic memory traces during sleep and the distribution of sleep spindles
- 6. Sarah Moens**
Defining subtypes of insomnia

Group D: Degeneration 2

- 11. Sigrid Tolboom**
Identification of neurodegenerative and neuroprotective mechanisms in a MPTP marmoset model for idiopathic Parkinson's disease
- 12. Marie Orre**
Isolation and gene expression analysis of adult astrocytes and microglia from an AD mouse model
- 13. Sasja Heetveld**
Frontotemporal dementia and Parkinsonism linked to chromosome 17: from disease mechanism to new therapeutic strategy

Group F: Genetics

- 18. Esther Lips**
JAG: a tool to analyse the Joint Action of Genes within genotypic data
- 19. Veerle Eggens**
The role of RNA processing genes in pontocerebellar hypoplasia
- 20. Sarah Janssen**
Gene expression profile and functional annotation of the human ciliary body epithelia
- 21. Carlyn Mamber**
GFAP-delta: A neural stem cell marker in mouse?

Group H: Psychiatric Disorders 2

- 25. Judy Luigjes**
Deep brain stimulation normalizes frontostriatal connectivity in obsessive-compulsive disorder
- 26. Katelijne van Oortmerssen**
Prevalence of ADHD in substance use disorder patients: a prevalence study at the Jellinek Addiction Treatment Centre.
- 27. Remi Soleman**
The effects of sex steroids on functional brain activity during emotional picture processing

Group J: Sensory Systems 2

- 32. Zimbo Boudewijns**
Sensory processing in rat medial prefrontal cortex
- 33. Nouk Tanke**
Impact of single-cell stimulation in rat barrel somatosensory cortex on the detection of whisker movements
- 34. Bruno Dagnino**
The perception of phosphenes: On the interaction between feedforward and feedback connections

Group L: Signaling 2

- 41. Oscar Stassen**
The role of the intermediate filament GFAP in mechanotransduction in reactive astrocytes
- 42. Julia Kurps**
Munc18-1 regulates cortical F-Actin in chromaffin cells
- 43. Ning Chen**
Pre-synaptic protein complexes identified by Interaction Proteomics

Group N: Synapse

- 44. Nikhil Pandya**
Structural and functional characterization of novel AMPA receptor interacting protein – Pancortin.
- 45. Johan Winnubst**
Activity-dependent clustering of functional synaptic inputs on developing hippocampal dendrites
- 46. Rocío Díez Arazola**
C-2 domain proteins: a competition model
- 47. Margherita Farina**
Secretory vesicles in neurons: capture and fusion

Group P: White Matter

- 52. Andrea Goudriaan**
Differences in brain myelination in mouse recombinant inbred strains.
- 53. Catherine van Engen**
Omega-oxidation of very long-chain fatty acids: a therapeutic option for X-linked adrenoleukodystrophy?
- 55. Shailender Singh**
Preactive multiple sclerosis lesions reveal innate immune activation and immune-regulation

Group R: Networks 2

- 60. Ilse Verweij**
Sleep deprivation leads to a loss of functional connectivity in frontal brain regions
- 61. Bernard Bloem**
Studying the causal role of cholinergic, GABAergic and glutamatergic corticopetal projections from the basal forebrain in neocortical activation.
- 62. Ioannis Kramvis**
The state of phasic and tonic GABAergic inhibition in the CA1 hippocampal region of the Fragile-X mouse model for neurodevelopmental disorders

Group T: Regeneration

- 66. Loek van der Kallen**
Regulation of neuronal plasticity by basic leucine zipper transcription factors
- 68. Nitish Fagoe**
Optimization of AAV expression vector for overexpression of transcription factors in DRG neurons targeting axonal regeneration
- 69. Arie van Vliet**
Wnt5a in peripheral neuroregeneration

Group V: (f)MRI 2

- 73. Myrle Kemperman**
CONNECT: Cognition and the neural network: effects of chemotherapy
- 74. Niels Kloosterman**
Auditory Decision-Making depends on a prefrontal sensory comparator mechanism
- 75. Niels Gerrits**
The neural substrate of set-shifting deficits in Parkinson patients

Group X: Modeling

79. Richard Hardstone

Critical-state dynamics of avalanches and oscillations jointly emerge from balanced excitation/inhibition in neural networks

80. Bas Schotten

Modeling responses to hypertonic sucrose solutions in Hippocampal autapses

81. Joachim Kutzera

Modelling protein protein interaction based on protein abundance data in neurons

Group Z: Plasticity

85. Roeland Struik

Glutamate receptors and spontaneous recovery after cue-extinction of nicotine seeking

86. Matthijs Verhoog

Rules and mechanisms of spike-time dependent plasticity at adult human neocortical synapses

87. Cillian King

Post-translational modifications of synaptic proteins

88. Stefan Hoyng

Developing a potentially immunologically-inert reverse tetracycline controlled lentiviral vector for gene therapy in the peripheral nerve system