

Program Annual PhD Meeting – Thursday, 22 November 2012

Parallel sessions information (2 locations)

Parallel sessions A:

Big lecture hall (Room 30, Day chair: Laura Koenders)

Parallel sessions B:

Kapelzaal (Room 16, Day chair: Bernard Bloem)

Program

09:00 – 09:45 Registration/ Coffee & Tea

09:45 – 09:55 Welcome by day chair (big lecture hall)

10:00 – 11:30 Parallel session oral presentations:

Session 1A: Dementia – Chair: Wiep Scheper

Kerstin Wirz

Molecular changes during the development of Alzheimer's disease

Marie Orre

Reactive glia in Alzheimer's disease – a genome wide study on glial (dys)function

Qian Wang

Glucocorticoid receptor protein expression in human hippocampus; changes in ageing, depression and Alzheimer's disease

Sasja Heetveld

Regulation of tau exon 10 splicing: a shRNA screen of the human spliceosome

Tara Arbab

Hippocampal codes of space in the Fmr1-KO mouse model of Fragile X mental retardation

Session 1B: From gene regulation to gene therapy – Chair: Guus Smit

Joseph Ndika

Functional relevance of splicing in the creatine transporter gene

Elizabeth Moloney

AAV-mediated delivery of neuropilin-1 receptor-bodies to skeletal muscle: a gene therapy strategy to manipulate semaphorin 3A signalling at the NMJ of G93A-hSOD1 ALS mice

Stefan Hoyng

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

Nitish Fagoie

Improved nerve regeneration by in vivo overexpression of ATF3 using an AAV dual promoter vector

11:30 – 11:45 Coffee & Tea

11:45 – 13:00 Parallel session oral presentations:

Session 2A: Development – Chair: Hans van Hooft

Ewoud Schmidt

Mesohabenular circuit development depends on axon-axon interactions and DCC–Netrin-1 signaling for target entry

Martine Rosa Groen

Developmental increase of tonic alpha-5 GABA-A subunit regulates dendritic excitability

Julia Dawitz

Synaptic mechanisms underlying early entorhinal cortex network development

Sarah Burke

Sex hormones, gender identity & the developing brain

Session 2B: Astrocytes in health and disease – Chair: Vivi Heine

Carlyn Mamber

Aspects of GFAPdelta in adult neurogenesis

Regina Kanski

RNA based silencing of GFAP isoforms

Martina Moeton

The role of intermediate filaments in proliferating astrocytes

Emanuele Zurolo

MicroRNA-146a: a key regulator of astrocyte mediated inflammatory response

13:00 – 14:00 Lunch

14:00 – 14:45 **Blitz session 1** (Big lecture hall)

14:45 – 15:15 **Printer workshop** (Kapelzaal)

15:15 – 16:15 **Poster session I & Printers market**

16:15 – 18:00 Parallel session oral presentations:

Session 3A: Addiction – Chair: Huib Mansvelder

Danai Riga

When the blues bring the booze: the interaction between social defeat and alcohol-taking and alcohol-seeking behaviors in rats

Bart Lubbers

GABAergic neurotransmission in the dorsal medial prefrontal cortex regulates cue-induced reinstatement of nicotine seeking

Matthijs Verhoog

Nicotine facilitates spike-timing-dependent potentiation in layer 6 pyramidal neurons of the mouse medial prefrontal cortex

Jan-Peter van Wieringen

Characterization of 123I- and 18F-labeled pharmaceuticals for imaging dopamine D2-receptors in the high-affinity state

Marieke Schouw

Dopaminergic dysfunction in amphetamine users during a reward task before and after methylphenidate

Marise Machielsen

The effect of clozapine and risperidone on craving for cannabis in patients with schizophrenia, an fMRI study

Session 3B: Catching cognition – Chair: Carien Lansink

Gregoire Maroteaux

High throughput phenotyping of avoidance learning in mice discriminates different genotypes and identifies a novel gene

Marianne Klanker

Phasic dopamine release in the striatum during spatial discrimination and reversal learning

Bernard Bloem

Cholinergic modulation of the medial prefrontal cortex in mice

Nouk Tanke

Single cell stimulation can influence perception

Remi Soleman

Neuroendocrine implications for cognition in adult transsexuals as clinical models

18:00 – 18:15 Coffee & Tea

18:15 – 18:45 **Your PhD as Stepping Stone to Success** (Big lecture hall)

19:00 – 20:30 Dinner

20:30 – 21:30 Evening Program “**BrainBasher: Who’s the crook?!**”

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Big lecture hall (Room 30, Day chair: Emmeke Aarts)

Parallel sessions B:

Kapelzaal (Room 16, Day chair: Rolinka Schippers)

Program

08:00 – 09:15 Breakfast

09:15 – 09:55 **Blitz session II**

10:00 – 11:45 Parallel session oral presentations:

Session 4A: Neurological Disorders – Chair: Peter Burbach

Andrea Goudriaan

Genetic differences in myelin and white matter connectivity in mouse recombinant inbred strains

Catherine van Engen

Identification and characterization of a new modifier gene for X-linked adrenoleukodystrophy

Caroline Bruinsma

Impaired cerebellar learning and Golgi cell-granule cell transmission in a mouse model of Angelman syndrome

Sarah Janssen

Gene expression and functional annotation of the human and mouse choroid plexus and in silico analysis of possible implications for glaucoma

Vasil Mecollari

Functional recovery from spinal cord injury in rats after expression of a soluble variant of the semaphorin/VEGF receptor Neuropilin-1 at the spinal lesion site

Session 4B: Connectivity – Chair: Gerard Borst

Lieke Geerts

Function of tomosyn-2 in the mammalian nervous system

Rocio Diez Arazola

C2 domain proteins and their role at the synapse

Ning Chen

Pre-synaptic protein complexes identified by Interaction Proteomics

Zimbo Boudewijns

Layer specific spiking properties and the occurrence of active calcium events in the prelimbic prefrontal cortex of the rat

Paolo Bazzigaluppi

Properties of the nucleo-olivary pathway: an in vivo whole-cell patch clamp study

11:45 – 12:45 Lunch

12:45 – 13:45 **Poster session II**

- 13:45: 15:15 Parallel session oral presentations:
- Session 5A: New tools in fundamental and clinical neuroscience – Chair: Klaus Linkenkaer Hansen**
- Torben Hager
The dynamics of conditioned contextual fear: long-term monitoring of avoidance and risk assessment of mice in a novel automated home cage system
- Alexander Diaz
The Amsterdam Resting State Questionnaire: a novel tool to measure and characterize resting-state cognition
- Pieter Klein
GMOM analogues for PET imaging of the NMDA receptor: synthesis and evaluation
- Esther Lips
Gene-set association analysis in complex traits
- Adrian Negrean
Pushing the limits of two-photon microscopy
- Mireille Nieuwenhuis
Prediction of disease status and illness course in schizophrenia patients using structural MRI brain pattern classification
- Session 5B: Vision – Chair: Alexander Heimel**
- Henrique Alves
CRB2 and CRB1 in retinal development and maintenance
- Anouk van Loon
GABA-A agonist reduces visual awareness: a masking-EEG experiment
- Annelinde Vandenbroucke
The influence of object knowledge on color representation in early visual areas
- Marie-Alice Gariel-Mathis
Figure-ground modulation in macaque V1: the role of feedback from V4
- Iris Groen
Man-made or natural? Tracking neural processing of scene gist using single-trial EEG
- 15:15 – 15:30 Coffee & Tea
- 15:30 – 16:30 **Swammerdam lecture by Prof. John-Dylan Haynes** (Big lecture hall)
Charité - Universitätsmedizin, Berlin Chair for Theory and Analysis of Large Scale Brain Signals, Director of Berlin Center for Advanced Neuroimaging Bernstein Center for Computational Neuroscience
Decoding and Predicting Human Decisions
- 16:30 – 17:00 Awards & closing remarks

Blitz Session I – Thursday, 22 November 2012, 14:00 – 14:45

Roeland Struik
Rolinka Schippers
Sanne Menning
Rebecca Steketee
Ozlem Korucuoglu
Andrea Rosenberger
Baukje van der Star
Karlijn Doorn
Daphne Vogel
Lucija Abramovic
Moran Cohn
Margherita Farina
David Hondius
Rozan Vroman
Maria Fernanda Vinueza Veloz
Marcia Spoelder
Judith van der Harg
Emmeke Aarts
Nikhil Pandya
Loek van der Kallen
Johan Winnubst
Cillian King
Jasper Stroeder
Borbala Duray
Bruno Dagnino

Blitz Session II – Friday, 23 November 2012, 09:15 – 09:55

Irina Poslowsky
Roy Cox
Carly Sweegers
Judy Luigjes
Niels Gerrits
Ashutosh Dhingra
Oscar Stassen
Lieke Kros
Marloes Prins
Sarah Moens
Sanne van Rooij
Marta Ruiperez Alonso
Carmen Rietdijk
Jesse Veenvliet
TianTian Wang
Nawal Bahia el Idrissi
Melissa Lopes Pinheiro
Philip Nijland
Debbie Hendrickx
Myrle Kemperman
Niels Kloosterman
Karen Carney
Anna Karataeva
Ioannis Kramvis
Julia Kurps
Joachim Kutzera

Poster Session I, Thursday 22 November 2012, 15:15 – 16:15

Group A: Addiction

Elisabeth Abs

1. Roeland Struik

Metabotropic glutamate receptor 5 antagonist MPEP reduces spontaneous recovery of nicotine seeking

2. Jochem Jansen

A meta-analysis on the effects of non-invasive neuro-stimulation on craving levels in substance dependence

3. Han de Jong

Towards an animal model for food addiction

4. Rolinka Schippers

Deep brain stimulation of the nucleus accumbens core reduces relapse to heroin seeking

Group C: Cognition 1

Pascal Bielefeld

Paul Mertens

9. Sanne Menning

Prospective multimodality MRI study into cognitive dysfunction in breast cancer patients – preliminary baseline results

10. Rebecca Steketee

Focal hypoperfusion in early dementia as assessed by arterial spin labeling magnetic resonance (MR)

11. Susanne Van Veluw

In vivo detection of cerebral cortical microinfarcts with high resolution 7T MRI

12. Lara Wierenga

Developmental trajectories of cortical thickness, surface area and volume are discrete

Group E: Cognition 2

Renske Raaphorst

Rozanna Meijboom

17. Mitzy Kennis

Reduced default mode network resting state functional connectivity in deployed veterans with PTSD

18. Ozlem Korucuoglu

The effect of acute alcohol and stimulus salience on conflict monitoring and error processing

19. Danique Jeurissen

Figure-ground modulation in the primary visual cortex of the macaque monkey

20. Luuk van der Velden

Local network synchronization in the ventral tegmental area

Group G: Degeneration 1

Anne-Lieke van Deijk

25. Veerle Eggens

The role of RNA processing genes in pontocerebellar hypoplasia

26. Nathaly Espitia Pinzon

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

27. Andrea Rosenberger

Protein kinase activity profiling on cerebrospinal fluid to find diagnostic biomarkers for Alzheimer's disease

28. Berend van der Wildt

Development of a positron emission tomography (PET) tracer for in vivo determination of tissue transglutaminase activity in neurodegenerative diseases

29. Maria Renner

Role of the GluR3-containing AMPA receptor in the maintenance of memories and Alzheimer's disease

Group I: Diseases 1

Anna Bennis

Sanne Verkooijen

34. Jamie Lim

Reactive oxygen species in multiple sclerosis: from source to solution

35. Baukje van der Star

Autoimmunity to neurofilament light reveals pathogenic T cell epitopes and implicates a role for CD4+ T cells in disease

36. Sovann Kaing

On the origin of proteins in Human Bruch's membrane and Drusen

37. Karlijn Doorn

Development of a novel rat model for Parkinson's disease

Group K: Diseases 2

Lotte Houtepen

42. Marlien Niesten

Effect of superior canal dehiscence size and location on clinical presentation, audiometric and cVEMP testing

43. Mieke de Jager

Role of tissue transglutaminase in cross-linking of extracellular matrix proteins in cerebral amyloid angiopathy

44. Laura Peferoen

MOG-antibodies trigger pre-active lesion formation in Multiple Sclerosis

45. Daphne Vogel

The effect of classical or alternative activation on macrophage motility in the CNS

Group M: Psychiatric disorders 1

Maik Derksen

50. Laura Koenders

Brain volume in first episode schizophrenia: a sMRI study

51. Lucija Abramovic

Global brain volume in bipolar disorder: the effects of lithium and age

52. Wanda Tempelaar

Educational level and not underachievement is related to general mental health problems in adolescents at secondary school

53. Moran Cohn

Fear conditioning in adolescents with persistent versus desistent patterns of early-onset Disruptive Behavior Disorders: a functional MRI study

Group O: Sensory Systems

Anke Hammerschlag

58. Andrius Plauska

The tone complex stimulation for the juxtacellular recordings in the MSO of the gerbil

59. Dyan Ramekers

Temporal response properties of the electrically stimulated auditory nerve in the deafened guinea pig

60. Daniela Camillo

Calcium imaging of contextual modulation in mouse V1

61. Marit Arp

A role of the mineralocorticoid receptor in navigational strategies

Group Q: Synapse

Lisanne Wisse

66. Margherita Farina

Proteins that control spatial and temporal release of vesicles in neurons

67. Fatima Farzana

Functional importance of neurobeachin and sap102 interaction in the synapse

68. Wendy Timmermans

Corticosteroid effects on synaptic transmission: role of Rab GTPases in AMPAR trafficking through the endosomal pathway?

69. David Hondius

Changes in the human hippocampus proteome during Alzheimer's disease

Group S: Networks

Martijn Kool

73. Mariette Lenselink

Towards a systems biology approach of investigating glutamatergic synapses of transgenic mouse models of migraine

74. Rozan Vroman

Negative feedback from horizontal cells to cones induces glutamate spillover

75. Yoshiyuki Onuki

Cerebellum and hippocampus show functional connectivity during learning-dependent prediction timing of movements

76. Jorrit Montijn

Motivation and awareness in mouse visual cortex

Group U: Behavior

Dwayne Holmes

81. Joerg Schreiber

TRIM3 is a synaptic E3 ubiquitin ligase that affects hippocampal learning

82. Maria Fernanda Vinuesa Veloz

The role of motor-related brain areas in Foxp2-deficient mice

83. Marcia Spoelder

Effects of acute and repeated alcohol exposure on performance in a rat gambling task: reduced sensitivity to punishment and behavioral disinhibition

84. Eva Naninck

Chronic early-life stress programs hippocampal neurogenesis and function: what are the responsible molecular mechanisms?

Group W: Metabolism

Zhi Zhang

90. Judith van der Harg

Unfolded protein response (UPR) and tau phosphorylation in the brain during metabolic stress

91. Daniela Herrera Moro Chao

Iminosugars and correction of metabolic syndrome

92. Su Yan

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

93. Hui Xiong

Hormonal Regulation of AMPA receptor function

Group Y: Modeling

Marleen van Coevorden - Hameete

98. Emmeke Aarts

Take the hierarchical road: bias due to dependency in (neuroscience) data and how to avoid it

99. Richard Hardstone

EEG correlates of resting-state cognition

100. Tafadzwa Sibindi

An optimal control model of the compensatory eye movements system

101. Bart te Lindert

Affordable sleep estimates using micro electro-mechanical systems (MEMS) accelerometry

Group AA: Plasticity 1

Esther Remmelink

106. En-qi He

Post docking role of Munc18

107. Nikhil Pandya

Structural and functional characterization of novel AMPA receptor protein: Pancortin

108. Loek van der Kallen

Regulation of hippocampal synaptic plasticity by the basic leucine zipper transcription factors CREB and NFIL3

109. Johan Winnubst

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

Group AC: Electrophysiology

Sander Lindeman

114. Cillian King

Characterization of a novel synaptic E3-ligase

115. Jasper Stroeder

Shisa proteins and AMPA-receptor function

116. Borbala Duray

Neuronal oscillatory changes in an animal model of Parkinson's disease

117. Bruno Dagnino

Attention, reward and perceptual decision making in the primary visual cortex

118. Zbigniew Zielinski

On the contributions of hippocampal ripple-associated activity to information processing in nucleus accumbens.

Poster Session II, Friday 23 November 2012, 12:45 – 13:45

Group B: Cognition 3

Lana Beex

Hemanth Mohan

5. Irina Poslowsky

Oxytocin enhances paternal sensitivity to a child with autism: a double-blind within-subject experiment with intranasally administered oxytocin

6. Roy Cox

The influence of sleep on the context reinstatement effect

7. Carly Sweegers

Immediate sleep leads to spontaneous recovery of a conditioned fear response

8. Devavrat Vartak

Separable effects of attention and contrast on the spread of object-based attention

Group D: Cognition 4

Kim Dekker

13. Judy Luigjes

Effective deep brain stimulation in heroin addiction: a case report with complementary intracranial EEG

14. Annabel Vreeker

Advanced paternal age and vulnerability to psychotic-like experiences in the offspring

15. Niels Gerrits

Gray matter volume changes and cognition in Parkinson's disease

16. Gerben Klein

The role of neural plasticity in conscious perception

Group F: Degeneration 2

Callan Attwell

21. Tatiana Cerveira

Role of Munc18 in neuronal viability

22. Ashutosh Dhingra

Patient specific induced pluripotent stem cells as a model to study Parkinson's disease

23. Chris Vriend

Depression in Parkinson's disease is related to reduced dopamine in the caudate nucleus

24. Oscar Stassen

The role of the intermediate filament GFAP in mechanotransduction in astrocytomas

Group H: Genetics

Cátia Pereira Frias

30. Sofia Kanatsou

Mineralocorticoid receptors as genetic resilience factor under chronic stress?

31. Sietske Kevelam

Exome sequencing reveals mutated SLC19A3 in patients with a lethal, early-infantile encephalopathy

32. Peter Quinn

Manipulation of isolated müller glia cells towards discrete retinal neuronal cell fates

33. Ricardo Paap

FoxO transcription factors in control of neural stem cell fate

Group J: Diseases 3

Joyce de Wit

Premnath Thamizharasu

38. Lieke Kros

Epileptic signatures in cerebellar activity of cacna1a mutant mice

39. Eline Hamilton

Leukoencephalopathy with brain stem and spinal cord involvement and lactate elevation - study of the phenotype and genotype and their correlation

40. Marloes Prins

CCL2 in the hippocampus of Multiple Sclerosis patients and its cuprizone model

41. Sarah Moens

The different faces of insomnia: defining insomnia subgroups

Group L: Psychiatric disorders 2

Anne Marije Kaag

46. Tanja Su

Beyond the Blood-Brain Barrier: detection of brain abnormalities in older HIV-infected individuals in the cART era compared to matched non-infected controls

47. Suriya Navaneetha Manivannan

The dynamics of conditioned fear behavior of C57BL/6J mice in an automated home cage (Dualcage) environment

48. Sanne van Rooij

Neural correlates of impaired response inhibition in PTSD

49. Koen van Lith

Enhancing fear conditioning in adolescents with Disruptive Behavior Disorders: a functional MRI study

Group N: Receptors

Celine Heldring

54. Marta Ruiperez Alonso

The AMPAR interacting protein Shisa-9 alters hippocampal neuronal network synchronization

55. Leanne Schmitz

The role of synaptic plasticity in reconsolidation of contextual fear memories: an optogenetics approach.

56. Carmen Rietdijk

Enteric neurons express functional toll-like receptors

57. Marijn Schouten

Dynamics of stress hormone exposure and neural stem cell quiescence

Group P: Signaling

Niels Reinders

62. Girish Kedar

Synaptotagmin-1: involvement of the C2B domain in secretory vesicle docking

63. Arie van Vliet

Wnt5a in peripheral neuroregeneration

64. Simone Mesman

A role for Gli2A-mediated Sonic Hedgehog-signalling in midbrain development

65. Jesse Veenvliet

A homeodomain code for dopaminergic subset specification

Group R: White matter

Louise Pape

Mariska van Lier

70. Stephanie Dooves

Glial differentiation of Vanishing White Matter mutated iPS cells

71. Mohit Dubey

Astrocytic MLC1 is involved in brain water homeostasis and myelin integrity

72. Mustapha Hamada

Functional consequence of acute demyelination in layer 5 neocortical axons

Group T: Pharmacology

Linde Boekhoudt

77. Eline Zaaijer

Effect of naltrexone on striatal 123I-FP-CIT binding in rats

78. TianTian Wang

Low ambient GABA concentration in the mouse auditory brainstem *in vivo*

79. Iris Overwater

RATE: randomised trial of rapamycin in children with TSC and intractable epilepsy

80. Maaïke Labots

Magnesium deficiency and anxiety-related behaviour of C57BL/6 mice housed under reversed light/dark cycle conditions

Group V: Immunology

Anneloes Opperhuizen

85. Nawal Bahia el Idrissi

Complement inhibition is neuroprotective in a mouse model of leprosy

86. Melissa Lopes Pinheiro

Sphingosine 1-phosphate receptor 5 mediates the immune quiescence of the human brain endothelial barrier

87. Philip Nijland

Source and role of mitochondrial antioxidants in MS white matter lesions

88. Debbie Hendrickx

Selective upregulation of scavenger receptors in and around demyelinated areas in multiple sclerosis

89. Grazia Forte

Effects of rapamycin treatment on status epilepticus-induced brain inflammation and development of epilepsy in the rat

Group X: Neuroimaging

Cheima Bouziane

Bieneke Janssen

94. Myrle Kemperman

The very late neurotoxic effects of chemotherapy in breast cancer survivors on white matter integrity and brain function: preliminary results of a multimodality MRI study

95. Juliette Driessen

Laryngeal and hypopharyngeal carcinoma: correlation between diffusion weighted MRI and tissue components

96. Niels Kloosterman

Neural activity in human visual cortex predicts bistable perceptual state durations

97. Judy van Hemmen

Sex hormones, sex chromosomes and sexual differentiation of the human brain

Group Z: Plasticity 2

Wobbie van den Hurk

102. Karen Carney

Identification of astrocyte-expressed proteins involved in structural plasticity

103. Anna Karataeva

Identification of protein interactors of Shisa9, a modulator of AMPAR function

104. Marc Lammers

Comparing electrically cortical potentials in pre- and postlingually deafened

105. Josta Kevenaer

Liprin-a2 regulates presynaptic plasticity by organizing active zone composition

Group AB: Neurodevelopment

Roel Mocking

110. Avanita Prabowo

Fetal brain lesions in tuberous sclerosis complex (TSC): TORC1 activation and inflammation

111. Ioannis Kramvis

GABAergic Transmission in the developing hippocampus of Fmr1-KO mice

112. Marinka Koenis

Does efficiency come with puberty? A study on structural brain network development

113. Willemieke Kouwenhoven

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

Group AD: Methods

Ivana Milojevic

119. Julia Kurps

Novel image analysis tool to study the subcellular localization of secretory proteins and cortical actin in neurosecretory cells

120. Anouk Schrantee

Investigating the 1.28ppm resonance ex vivo in neuronal progenitor cells and in vivo in rat dentate gyrus

121. Sizar Kamar

Functional properties of photoreceptors in cultured human retina

122. Joachim Kutzera

Inferring protein-protein interaction complexes from immunoprecipitation data