

Program Annual Meeting 2008

Thursday, 27 November

09.00 - 09.50 Registration / coffee and tea

09.50 - 10.00 **Welcome** - Els Møst

Didactic comments - Ysbrand van der Werf

10.00 - 10.55 **Session 1: Brain Imaging** chair: **Dick Veltman**

Floris van Velden

Direct quantitative comparison of HRRT and HR+ scanners: an interscanner [11C]flumazenil test-retest study.

Nienke Dekker

Cannabis use and callosal white matter structure and integrity in recent-onset schizophrenia.

Jurgen Mourik

Effects of patient movement on the analysis of dynamic PET brain studies.

10.55 - 11.15 Printers market with coffee and tea

11.15 - 12.25 **Session 2: Electrophysiology and Visual Cortex** chair: **Freek Hoebeek**

Marijn van Wingerden

Single unit and network coding of orbitofrontal cortex neurons during a 2-odour discrimination task.

Silviu Rusu

Cellular mechanisms underlying complex extracellular waveforms from the Calyx of Held synapse.

Duco Endeman

Cones perform a nonlinear transformation on a natural time series of intensities.

Hadi Saiepour

Role of β -catenin in functional and structural plasticity of the visual cortex.

12.25 - 13.30 Lunch and printers market

13.30 - 14.00 **Blitz Session I** chair: **Ysbrand van der Werf**

14.00 - 15.30 **Poster Session/** Printers market

15.30 - 16.00 Printers market

16.00 - 17:10 **Session 3: Phenotyping and Biorhythm** chair: **Oliver Stiedl**

Alexander Cupido

Detecting cerebellar phenotypes with the Erasmus Ladder.

Annetrude de Mooij-van Malsen

Behavioural genetics of avoidance: a mouse phenotype linked to a human mood disorder.

Els Møst

Skin temperature rhythms in Alzheimer's Disease and cognitive impaired elderly.

Ellen Hessel

Mapping quantitative trait loci for febrile seizure.

17:10 - 17.30 Coffee and tea

17.30 - 18.40 **Swammerdam Lecture by prof dr. Rainer Goebel** chair: **Felisa van Hasselt**

Using the BOLD Signal for communication and neurofeedback: automatic decoding of real-time fMRI data.

18.45 - 20.30 Dinner

20.30 - 21.30 Science Quiz

Program Annual Meeting 2008

Friday, 28 November

08.30 - 09.30 Breakfast

Didactic comments - Wiep Scheper

09.30 - 09.35 **Introduction** - Jelte Wouda

09.35 - 10.45 **Session 4: Age and Neurodevelopment** **chair: Jeroen Pasterkamp**

Jinte Middeldorp

GFAP δ expression in neurogenic astrocytes in the developing and adult brain.

Nils Zuiderveen Borgesius

Accumulated DNA damage causes age-related cognitive decline.

Charlotte Oomen

Sex-dependent effects of early life stress on the hippocampus.

Max Schlager

Madmax coordinates exocytotic Rab6 vesicle transport and regulates neuronal development.

10.45 - 11.00 Coffee and tea

11.00 - 11.45 **Blitz Session II** **chair: Wiep Scheper**

11.45 - 13.00 Lunch

13.00 - 14.45 **Poster Session II**

14.45 - 15.55 **Session 5: Neurodegeneration and protection** **chair: Paul Lucassen**

Elly Vereyken

Alternatively and classically activated macrophages vary in migratory capacity and migrate differently in organotypic CNS cultures.

Gijs Kooij

P-glycoprotein is a novel immunomodulator in multiple sclerosis.

Marcel Raspe

Mimicking proteasomal release of polyglutamine peptides using a novel cell-based tool

Judith Gillis

Aggregation of expanded, pure polyglutamine peptides can be inhibited by overexpression of the chaperones DnaJB6 and DnaJB8

15.55 - 16.10 **Announcement FENS 2010** - Maarten Frens

16.10 - 16.20 **Poster Award** - Maarten Frens, Nelleke Verhave, Erika van Hell, Harold Mac Gillavry

16.20 - 16.30 **Blitz and Oral Presentation Award** - Retreat committee 2008

16.30 - 16.40 **Closing remarks** - Jelte Wouda

Blitz Session I

27 November, 13.30 - 14.00

chair: Ysbrand van der Werf

Nico Romeijn
Rana Al Hussainy
Dianne van den Heuvel
Esther van der Zwaal
Felisa van Hasselt
Femke Wouters
Hemi Malkki
Inge van Soelen
Jean-Pierre Sommeijer
Nelleke Verhave
Margreet Ridder
Mette Somers
Nutabi Camargo
Priyanka Rao
Sebastian Schagen
Simone van den Berge

Blitz Session II

28 November, 11.00 - 11.45

chair: Wiep Scheper

Anne Kan
Hans Buitter
Hayriye Cagnan
Jelte Wouda
Joanna Korecka
Jurjen Broeke
Kasper Roet
Kelly Diederer
Laura Smit-Rigter
Marieke de Boer
Marjolijn Mertz
Marleen Sta
Martijn Wokke
Liesbeth Bijlsma
Marek Brandys
Danielle Counotte
Ruben van Doorn
Teresa Alves dos Santos
Cathalijn Leenaars
Willem Huijbers

Group A

Chair: Freek Hoebeek

- 7) Nico Romeijn
Skin temperature as a predictor for lapses in vigilance.
- 8) Rana Al Hussainy
Synthesis of ¹⁸F-labelled cubyl-WAY.
- 9) Rebecca Schutte
Fast and slow spindles relate inversely to motor skills in primary school aged children.
- 10) Rhea van de Bospoort
Identifying molecular mechanisms underlying secretory vesicle release in neurons.
- 11) Ria de Haas
Automated detection of compulsive checking behaviour in rats.
- 12) Rogier Poorthuis
Modulation of synaptic inputs to layer II/III pyramidal neurons in the prefrontal cortex by nicotine.

Group B

Chair: Ysbrand van der Werf

- 13) Diana Nijholt
ER stress is associated with phosphorylation of tau in the pathology of Alzheimer's disease and Pick's Disease.
- 14) Dianne van den Heuvel
Study to elucidate Neogenin signalling and its role in axon guidance.
- 15) Eelke Snoeren
Female sexual behavior and pharmacology in serotonin transporter (SERT) knockout rats.
- 16) Elemi Breetvelt
Specificity of risk factor for psychotic symptoms in the general population; ethnicity the odd one out?
- 17) Elisa Hoekstra
Identifying the specific role of transcription factors Lmx1a and Lmx1b in the genetic cascade leading to mesodiencephalic dopaminergic neurons.
- 18) Esther van der Zwaal
Drug-induced weight gain: effects of olanzapine in an animal model.

Group C

Chair: Elly Hol

- 19) Eva Blaas
High-content screening of gene candidates for Parkinson's disease.
- 20) Evelien Platje
The cortisol awakening response in disruptive behavior disorder compared to normal children.
- 21) Evert-Jan Kooi
Abundant extracellular myelin in the meninges of patients with multiple sclerosis.
- 22) Felisa van Hasselt
Maternal care influences function and morphology in the adult rat hippocampus in a sex-dependent manner.
- 23) Femke Wouters
Brain activation during mental rotation in transsexual adolescents: an fMRI study.
- 24) Fleur Zeldenrust
Inhibitory structures in the hippocampus.

Group D

Chair: Jeroen Pasterkamp

- 31) Hemi Malkki
Correlations between operant learning performance and quantitative trait loci in recombinant inbred mice.
- 32) Henrique Cabral
Hippocampal coding of routes and sequences on the Sarmaze in wild-type and CA1 NR-1 KO mice
- 33) Inge van Soelen
The relation between attainment of motor milestones and volumetric brain measures in healthy 9-year old twins.

- 34) Jacobine Buizer-Voskamp
Recurrent CNVs disrupt three candidate genes in schizophrenia patients.
- 35) Jasper Poort
The role of attention in figure-ground segregation.
- 36) Jean-Pierre Sommeijer
The GABA_AR subunit $\alpha 1$ is involved in but not essential for ocular dominance plasticity.

Group E

Chair: Oliver Stiedl

- 43) John Silvio Soria van Hoeve
Dynamic development of the Calyx of Held.
- 44) Jolanda Prins
Triple reuptake inhibitors: behavioral and microdialysis studies in the olfactory bulbectomy model of depression.
- 45) Joost Wiskerke
Differential effects of the CB1 receptor antagonist SR141716A and the FAAH-inhibitor URB597 in the 5-choice serial reaction time task.
- 46) Jornt de Gruijl
Anticipatory grip force control using a cerebellar model
- 47) Jorrit van Asselt
Electrophysiological characterization of Connexin 55.5. and Connexin 52.6.
- 48) Juliane Lauks
Subcellular localisation of Neurobeachin.

Group F

Chair: Sabine Spijker

- 55) Myrre van Spronsen
TRAK proteins regulate trafficking of mitochondria in neurons.
- 56) Natalia Gorionova
From behavior to AMPA receptors and back: neuroadaptive changes in the rat prefrontal cortex implicated in vulnerability to relapse to heroin seeking.
- 57) Natasha Pasricha
The physiological role of membrane MRs in hippocampal function.
- 58) Nelleke Verhave
Riluzole treatment in the marmoset MPTP model.
- 59) Qiluan Schaafsma-Zhao
Endocannabinoid signalling in the prefrontal cortex.
- 60) Margreet Ridder
MLC1 mutations cause dysfunction of chloride channel activity, a disturbance of volume regulation, and cerebral White Matter Edema.

Group G

Chair: Ronald van Kesteren

- 67) Marek Brandys
Genotypes and phenotypes in Anorexia Nervosa.
- 68) Matthijs Bossong
Delta9-tetrahydrocannabinol induces dopamine release in the human striatum.
- 69) Metten Somers
The use of Functional Transcranial Doppler ultrasound for the assessment of language lateralization. A comparison with functional MRI.
- 70) Mike Marlatt
Coordinated evaluation of gliosis in the Alzheimer hippocampus through immunohistochemistry.
- 71) Nutabi Camargo
Deletion of SCAP in astrocytes: the implication of disrupted lipid metabolism in the mouse brain.
- 72) Laurens Witter
A look inside cerebellar cortical neurons: linking electrophysiology to morphology.

Group H

Chair: Alwin Derijck

- 79) Oswald Bloemen
Psychosis and autism. An in vivo magnetic resonance imaging study of brain anatomy.

- 80) Patricia Klemmer
Quantitative synaptic proteomics in a mouse model for the Fragile X Syndrome reveals molecular changes underlying neurotransmission and synapse morphology.
- 81) Pieter Goltstein
Plasticity and functional micro-organization of cross-modal interactions in the mouse visual cortex.
- 82) Pieter van Bokhoven
Social defeat stress and subsequent antidepressant or behavioral therapy.
- 83) Priyanka Rao
Quantitative proteomics of memory consolidation in two inbred mouse strains.
- 104) Christiaan Stronks
Electro-acoustic stimulation in the cochlea of partially deafened guinea pigs.

Group I

Chair: Suzanne LaFleur

- 91) Rubén Saavedra
Olfactory Ensheathing Glia and the regeneration of the olfactory system: involvement of phagocytosis, cholesterol recycling and modulation of the extracellular matrix.
- 92) Sandra van der Salm
Normal cortical excitability yet polyphasic MEP's in myoclonus dystonia - a TMS study.
- 93) Sebastian Schagen
Voxel Based Morphometry of the transsexual adolescent brain.
- 94) Simone van den Berge
Neurogenic astrocytes in the adult human brain have a specialized intermediate filament network.
- 95) Simone de Jong
Relating gene expression network results to behavioral phenotypes in a chromosome substitution strain F2 population in order to identify a gene underlying a QTL.
- 96) Simon-Shlomo Poil
Avalanche dynamics of ongoing oscillations in vitro, in vivo and in computational models

Poster Session II

28 November, 13.00 - 14.45

Group J

Chair: Elly Hol

- 1) Aleksandra Badura
Inhibition in the cerebellar cortex – the role of interneurons in motor learning.
- 2) Anne Kan
Epileptogenic changes in a juvenile model of temporal lobe epilepsy.
- 3) Antoin de Weijer
Subregions in the frontal eye fields projecting to the superior colliculus are crucial in making anti-saccades: an fMRI-DTI study.
- 4) Aram Hossaini
The role of ARC expression in the spinal cord.
- 5) Arthur de Jong
Visualizing synaptic heterogeneity in autaptic neurons.
- 6) Asiya Giniatullina
Specific interaction of the priming factor DOC2B with PIP₂.

Group K

Chair: Jeroen Pasterkamp

- 25) Floris Klumpers
Method development studies for repeatedly measuring anxiolytic drug effects in healthy humans.
- 26) Frank Meye
New concepts in G-Protein coupled receptor signalling in the mesolimbic dopamine system.
- 27) Hannemieke van der Lei
The relationship between genotype and phenotype in Vanishing White Matter: the influence of the second mutation.
- 28) Hans Buitert

A putative radiolabeled ligand for in vivo imaging of the M1 muscarinic acetylcholine receptor by PET.

- 29) Hans-Rüdiger Geis
Intracellular mechanisms underlying rate and temporal tuning to sinusoidal amplitude modulated tones in the mouse inferior colliculus.
- 30) Hayriye Cagnan
Thalamic network response to oscillatory activity associated with Parkinson's disease and deep brain stimulation.

Group L

Chair: Wiep Scheper

- 37) Jelte Wouda
Operant alcohol self-administration and five-choice reaction time task performance in Wistar rats exposed to chronic alcohol during adolescence.
- 38) Jeroen van Zanten
Stimulated gene expression profiles as a blood marker in antidepressant-naïve major depressed patients.
- 39) Jeroen Melief
Severe multiple sclerosis is associated with low stress-axis activity.
- 40) Ji Un Youn
Strain differences in passive avoidance extinction in mice.
- 41) Joanna Korecka
Selecting and validating gene targets implicated in parkinson's disease development and progression.
- 42) Jochem Cornelis
Identification and functional characterization of novel repressors of neuronal regeneration.

Group M

Chair: Christian Lohmann

- 49) Julia Meijer
The neuroanatomy of semantic verbal fluency deficits: implications for prediction.
- 50) Jurjen Broeke
Vesicle release supports but is not essential for directed outgrowth.
- 51) Kasper Roet
The applicability of bioluminescence to measure cell survival after implantation in rat spinal cord.
- 52) Katja Ritz
Myoclonus-Dystonia: clinical and genetic evaluation of a large cohort.
- 53) Kerstin Wirz
Characterizing the function of Neuropilin 1 and 2 in the interaction between meningeal and Schwann cells.
- 54) Laura Smit-Rigter
Specific deficits in social interaction in mice lacking the 5-HT_{3A} receptor.

Group N

Chair: Harm Krugers

- 61) Marieke de Boer
Flexibility of behavioural planning in mouse prefrontal cortex.
- 62) Marjan Steenweg
L-2-Hydroxyglutaric Aciduria: pattern of MRI abnormalities in 53 patients.
- 63) Marjolijn Mertz
Calcium transients in PFC axons mediated by nicotinic activation: effects of axonal Type III Nrg1 signaling.
- 64) Marleen Sta
Innate and adaptive immunity in amyotrophic lateral sclerosis (ALS): evidence of complement activation.
- 65) Marloes Joosen
Therapeutic efficacy of physostigmine and obidoxime in a soman-poisoned guinea pig model.
- 66) Martijn Wokke
Up and down with TMS and EEG: Discriminating disruption of figure ground segregation signals in early visual areas.

Group O

Chair: Louk Vanderschuren

- 73) Kelly Diederer
Brain activation preceding the experience of auditory verbal hallucinations.
- 74) Liesbeth Bijlsma
Differential role for basolateral amygdala and prefrontal cortex in CRF-induced alterations in startle reactivity.
- 75) Linda Holtman
How complement protein C6 deficiency affects epileptogenesis.
- 76) Linda Schoo
Ranking your cognition
- 77) Ling Shan
Stable histamine production in spite of extensive Parkinson pathology in the Hypothalamic Tuberomammillary nucleus.
- 78) Maarten Witte
Mitochondrial alterations in MS lesions.

Group P

Chair: Paul Lucassen

- 84) Cathalijn Leenaars
Sleep promotes instrumental learning in rats.
- 85) Cathrin Canto
A comparison of neurons within the medial-, and lateral entorhinal cortex.
- 86) Chris Schubart
Initial age of cannabis use and the risk of psychotic symptoms.
- 87) Cleo Crunelle
Innovative approaches for cocaine pharmacotherapy: the case of rimonabant.
- 88) Danielle Counotte
Synaptic proteomics of rat prefrontal cortex affected by adolescent nicotine exposure.
- 89) Danielle van Versendaal
Measuring the effects of environmental enrichment on visual plasticity of adult mice by in vivo calcium imaging.
- 90) Ruben van Doorn
The sphingolipid rheostat influences brain endothelial integrity.

Group Q

Chair: Annemarie van Dam

- 97) Teresa Alves dos Santos
Do Pitx3 and En1 interact in the mesodiencephalic dopaminergic (mdDA) system?
- 98) Thaís Rizzi
Replication of candidate genes, locus-wide association study for IQ.
- 99) Tony Cijssouw
Lifetime at the membrane: the molecular factors that influence tethering and docking of secretory vesicles at their target.
- 100) Willem Huijbers
Dissociating the “retrieval success” regions of the brain: effects of retrieval delay.
- 101) Xin Qiao
Anti-epileptic drug interactions with α -subunits of voltage-gated Na⁺ channels stably expressed in HEK293 cells.
- 102) Yael Reijmer
Cognitive decline in type 2 diabetes mellitus: a longitudinal population-based study.
- 103) Yasmin Namavar
tRNA splicing endonuclease mutations cause pontocerebellar hypoplasie.