

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.

Judith Gillis

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

Marcel Raspe

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

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

16.10 - 16.20 **Poster Award** - Maarten Frens, Nelleke Verhave and Erika van Hell

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: t.b.d.

- 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.

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 Buitter
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 Tuberomamillary 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.