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
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
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08.30 - 09.30  Breakfast

**Didactic comments** - Wieg Scheper

09.30 - 09.35  **Introduction** - Jelte Wouda

09.35 - 10.45  **Session 4: Age and Neurodevelopment**  chair: Jeroen Pasterkamp
Jinte Middeldorp
GFAP$\delta$ 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: Wieg 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.
Gij 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 Buiter  
Hayriye Cagnan  
Jelte Wouda  
Joanna Korecka  
Jurjen Broeke  
Kasper Roet  
Kelly Diederen  
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
Poster Session I  27 November, 14.00 - 15.30

Group A  Chair: Freek Hoebeek
7) Nico Romeijn  
Skin temperature as a predictor for lapses in vigilance.
8) Rana Al Hussainy  
Synthesis of $^{18}$F-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) Elmi 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 Starmaze 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<sub>α</sub>R subunit α1 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 Grujl  
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) Myrthe van Spronsen  
TRAK proteins regulate trafficking of mitochondria in neurons.

56) Natalia Goriounova  
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) Qiuluai Schaanfsma-Zhao  
Endocannabinoid signalling in the prefrontal cortex.

60) Margriet 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 Mariatt  
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 antisaccades: 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 Buiter
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\textsubscript{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 Diederen  
  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 Cruenelle  
  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) Thais Rizzi  
  Replication of candidate genes, locus-wide association study for IQ.

99) Tony Cijsouw  
  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 hypoplasias.