

Program Annual Meeting 2009

Thursday, 19 November

09:00 – 09:45 Registration/ coffee and tea

09:45 – 10:00 Words of welcome: Jelte Wouda

Didactic comments: **Chris de Zeeuw**

10:00 – 11:15 **Session 1: Development, degeneration and regeneration** **Chair: Jeroen Pasterkamp**
Laura Smit-Rigter
Prenatal fluoxetine exposure causes life-long abnormalities in cortical development
Kasper Roet
Identification of novel glial proteins with the capacity to stimulate the extension of neurites in vitro
Myrthe van Spronsen
Goldberg Shprintzen Syndrome resolved: KBP inhibits kinesin-dependent cargo trafficking
Marleen Sta
Innate and adaptive immunity in amyotrophic lateral sclerosis (ALS): evidence of complement activation

11:15 – 11:30 Coffee and tea

11:30 – 13:00 **Session 2: Genetic Models** **Chair: Martien Kas**
Nutabi Camargo
Deletion of SCAP in astrocytes: the implication of compromised lipid metabolism in the mouse brain
Hemi Malkki
Genetic background of the behavioural traits relevant for operant learning in mice
Jean-Pierre Sommeijer
The role of the GABA receptor alpha 1 subunit in Ocular Dominance Plasticity
Ofir Betsalel
Novel variations and pathogenic mutations in the SLC6A8 gene: validation of splice prediction tools
Sabine Schmitz
Role of Cyclin-Dependent Kinase 5 Phosphorylation of Munc18 in synaptic transmission

13:00 – 14:00 Lunch

14:00 – 14:30 Blitz Session I

14:30 – 15:45 Poster Session I / Printers market

15:45 – 17:00 **Session 3: Parkinson's disease** **Chair: Peter Burbach**
Simone van den Berge
Neurogenesis in the Parkinson's disease brain
Hayriye Cagnan
Frequency Selectivity of a Thalamocortical Relay Neuron
Joanna Korecka
Differentiated SH-SY5Y cells as a good in vitro model for Parkinson disease studies
Nelleke Verhave
Evaluation of Riluzole treatment in a marmoset MPTP model for early Parkinson's disease

17:00 – 17:30 Printer workshop

17:30 – 17:45 Coffee and tea

17:45 – 18:45 **Swammerdam Lecture by Dr. Tim Tully**
(CSO of Dart Neuroscience LLC)
Enhancing memory

19:00 – 20:30 Dinner

20:30 – 21:30 Scientific Bingo

08:00 – 09:00 Breakfast

Didactic comments: **Matthijs Verhage**

09:00 – 10:15 **Session 4: Electrophysiology**

Chair: Cyriel Pennartz

Hans-Rüdiger Geis

Frequency response areas of neighboring neurons in the mouse dorsal inferior colliculus studied with double in vivo whole-cell recordings

Felisa van Hasselt

Programming effects of individual within-litter maternal care on gene expression, function and structure in the adult rat hippocampus

Jasper Poort

The role of Attention in Figure-Ground segregation in V1 and V4

Margreet Ridder

MLC1 is involved in brain water homeostasis and is associated with chloride channel activity

10:15 – 10:45 Coffee and tea

10:45 – 12:15 **Session 5: Imaging**

Chair: Dick Veltman

Hans Buitter

¹¹CJAF150(S), an agonist pet ligand for in vivo imaging of the M1 muscarinic acetylcholine receptor

Oswald Bloemen

White matter markers for psychosis in a prospective ultra high risk cohort

Rana Al Hussainy

¹⁸F labelled fluoromethylnorbrnyl WAY. A new radiopharmaceutical to visualize the 5-HT1A receptor

Willem Huijbers

The relation between the brain's default mode network, memory, and attention: A combined resting-state/task-based fMRI study

Sebastian Schagen

The effects of puberty suppression and the consecutive addition of cross-sex hormones on brain activation during mental rotation in transsexual adolescents: an fMRI study

12:15 – 13:15 Lunch

13:15 – 13:45 Blitz Session II

13:45 – 15:00 Poster Session II / Coffee and tea

15:00 – 16:15 **Session 6: Sleep and Behavior**

Chair: Tommy Pattij

Nico Romeijn

Sensing the future: skin temperature predicts lapses in vigilance

Cathalijn Leenaars

The effects of 12 hours of full sleep deprivation by means of mild forced locomotion on a novel switch-task paradigm

Priyanka Rao

Role of AMPA receptor trafficking in extinction of conditioned contextual fear of mice

Jelte Wouda

Long-term effects of chronic and binge-like alcohol exposure during adolescence on motivational and cognitive behavior

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

16:30 – 16:45 Closing remarks (Esther van der Zwaal)

Blitz Session I

Ruth van Holst
Henrique Cabral
Thais Rizzi
Rebecca Schutte
Yasmin Namavar
Yael Reijmer
Katja Ritz
Sandra van der Salm
Ling Shan
Laurens Witter
Linda Holtman
Albertine Scheltema Beduin
Pieter van Bokhoven
Marise Machielsen
Martijn Wokke
Natalia Goriounova
Qiluan Schaafsma-Zhao
Asiya Giniatullina

19 November, 14:00 – 14:30**Blitz Session II**

Joost Wiskerke
Erika van Hell
Patricia Klemmer
Jiun Youn
Diana Nijholt
Jolanda Prins
Xin Qiao
Evelien Platje
Mirjam van Tricht
Jochem Cornelis
Jorrit van Asselt
Pieter Goltstein
Fleur Zeldenrust
Rhea van de Bospoort
Juliane Lauks
Evert-Jan Kooi
Jeroen Melief
Marjan Steenweg
Maarten Witte

20 November, 13:15 – 13:45

Group: A (Addiction 1)

- 1) Ruth van Holst
Cognitive flexibility in alcohol and gambling addiction
- 2) Nienke Broos-Boersma
Stable impulsive decision making predicts extinction resistance and cue-induced relapse of cocaine self-administration
- 3) Ping Gao
Immediate early gene expression in cocaine addiction
- 4) Zsuzsika Sjoerds
The hijacked brain; an fMRI study on the neural correlates of habit formation in alcohol dependency

Group: C (Cognition 1)

- 9) Henrique Cabral
Coding of trajectories in hippocampal CA1 place cells in normal and NMDA NR-1 mutant mice
- 10) Thais Rizzi
Fatty Acids and intelligence
- 11) Rebecca Schutte
Sleep and Daytime Functioning in Childhood – a Meta-Analysis
- 12) Sandra Cornelisse
Psychosocial stress enhances emotional long-term memory and working memory in men, but not in women
- 13) Giovanni Piantoni
Reactivation during sleep of recently acquired memory

Group: E (Degeneration 1)

- 19) Yasmin Namavar
tRNA Splicing Endonuclease mutations cause Pontocerebellar Hypoplasia
- 20) Anna Carrano
Neuropathological characteristics of capillary cerebral amyloid angiopathy with dyschoric changes
- 21) Ewout Groen
FUS mutations in familial ALS in The Netherlands
- 22) Jinte Middeldorp
GFAP splice variant expression in astrocytes is associated with amyloid plaques in Alzheimer's disease

Group: F (Degeneration 2)

- 23) Yael Reijmer
MRI correlates of cognitive decline in type 2 diabetes
- 24) Lyn Setchell
Development of C-11-labelled agents for in vivo detection of tissue transglutaminase activity
- 25) Marie Orre
Proteasomal inhibition by A β in astrocytes in Alzheimer's disease
- 26) Robin Verhaar
Tissue transglutaminase (tTG) and neurodegeneration: added value of a cell based assay for selection of effective inhibitors in preclinical development
- 27) Marlene Vég
Aging in the central nervous system of DNAge mouse models

Group: H (Motor systems)

- 33) Katja Ritz
Alternative splicing of epsilon-sarcoglycan in Myoclonus-Dystonia
- 34) Sandra van der Salm
Voluntary motor preparation in tics and psychogenic movement disorders
- 35) Ling Shan
Histamine Production in Parkinson's Disease Brain: relationship with Lewy bodies and gender
- 36) Laurens Witter
Differential olivo-cerebellar cortical control of rebound activity in the cerebellar nuclei
- 37) Justus Groen
THAP1 mutations in focal dystonia
- 38) Froukje de Vries
Amphetamine induced striatal dopamine release in Tourette's syndrome using positron emission tomography

Group: I (Pharmacology 1)

- 39) Linda Holtman
Effects of cox-2 inhibition with SC-58236 on epileptogenesis, seizures and antiepileptic drug therapy with phenytoin
- 40) Albertine Scheltema Beduin
Rocksan: clozapine versus olanzapine in patients with schizophrenia and substance abuse
- 41) Elodie Girault
Acute intragastric administration of the antipsychotic olanzapine increases the plasma glucose concentration and induces hepatic insulin resistance in male rats
- 42) Lianne Schmaal
Neural substrates of impulsivity in addiction and the effects of pharmacological challenges
- 43) Joost Verbeek
Synthesis and biological evaluation of [¹¹C]D617, a metabolite of [¹¹C]verapamil

Group: K (Psychiatric disorders 1)

- 49) Pieter van Bokhoven
Social defeat stress and subsequent antidepressant or behavioral therapy: a hippocampal focus
- 50) Marise Machielsen
Cannabis use in patients with a psychotic disorder and patients at Ultra High Risk of psychosis: impact on psychotic- and pre-psychotic symptoms
- 51) Anouk den Braber
A DTI study of monozygotic twins discordant for obsessive-compulsive symptoms
- 52) Xin-rui Qi
Expression of stress-related genes in the human prefrontal cortex in mood disorders
- 53) Stella de Wit
Emotion regulation in obsessive-compulsive disorder patients and healthy controls: preliminary data

Group: M (Receptors 1)

- 60) Cleo Crunelle
Varenicline increases striatal D2/3 receptor binding in rats
- 61) Elsmarieke van de Giessen
Striatal dopamine D2 receptor availability in diet induced obese rats: developing an obesity model
- 62) Martine Groen
Modulation of calcium spikes by metabotropic glutamate receptors
- 63) Marijn Kuijpers
Mechanisms of AMPA receptor trafficking in hippocampal neurons
- 64) Qian Wang
Glucocorticoid receptor expression in the human hippocampus

Group: O (Sensory system 1)

- 70) Martijn Wokke
Figure-ground signals in early and object specific visual areas: A combined fMRI, EEG and TMS study
- 71) Jeroen Bos
Touch and See, multisensory integration
- 72) Zimbo Boudewijns
Axonal projections of Layer 5 neurons in primary somatosensory cortex: an in vivo labeling study
- 73) Rubén Saavedra
A study on the phagocytic properties of Olfactory Ensheathing Glia cells. Is the olfactory ensheathing glia cell a professional phagocyte?

Group: Q (Signalling 1)

- 79) Natalia Goriounova
Adolescent nicotine exposure induces lasting changes in presynaptic mGluR2 function in excitatory synapses in prefrontal cortex
- 80) Qiluan Schaafsma-Zhao
Cellular Endocannabinoid signalling in the rat prefrontal cortex
- 81) Asiya Giniatullina
Biochemical methods for studying regulation of membrane fusion
- 82) Rocío Díez Arazola
The calcium-binding protein DOC2B mediates spontaneous neurotransmitter release
- 83) Marieke Meijer
Munc18-1 binding to the SNARE complex is not a prerequisite for synaptic vesicle fusion

Poster Session II

20 November, 13:45 – 15:00

Group: B (Addiction 2)

- 5) Joost Wiskerke
An important role for mesolimbic mu-opioid receptors in amphetamine-induced inhibitory control deficits
- 6) Janna Cousijn
Craving modulates brain responses to cannabis cues
- 7) Bart Lubbers
Characterization of brevicin^{+/-} mice as a model for relapse vulnerability
- 8) Rogier Poorthuis
Nicotine effects neuronal network functioning in multiple layers of the prefrontal cortex through desensitization

Group: D (Cognition 2)

- 14) Erika van Hell
The acute effects of THC on brain activity during working memory
- 15) Patricia Klemmer
Quantitative synaptic proteomics in a mouse model of Fragile X Syndrome
- 16) Jiun Youn
Determination of substrain differences between C57BL/6J and C57BL/6N mice in behavioral flexibility using two spatial learning tasks
- 17) Tara Arbab
Hippocampal codes of space and episodic memory in a mouse model of Fragile-X mental retardation
- 18) Guilherme Testa Silva
Synaptic properties, dynamics and connectivity in the Fmr1-KO mouse: a model for Fragile X mental retardation

Group: G (Degeneration 3)

- 28) Diana Nijholt
Endoplasmic reticulum stress in Alzheimer's disease: Effects on cellular proteolysis
- 29) Hyung Elfrink
The function of Rab6 during ER stress and Alzheimer's disease
- 30) Elizabeth Moloney
Towards using neuropilin-1 receptor-bodies as scavengers to neutralise semaphorin 3A function in ALS
- 31) Kerstin Wirz
Functional characterization of target genes involved in Alzheimer's disease development and progression
- 32) Simon-Shlomo Poil
The Neurophysiological Biomarker Toolbox for Pre-clinical EEG/MEG research

Group: J (Pharmacology 2)

- 44) Jolanda Prins
The triple reuptake inhibitor DOV216,303, a putative new antidepressant, decreases ICSS thresholds without producing withdrawal effects
- 45) Xin Qiao
Anti-epileptic drugs bind to α -subunits of voltage-gated Na⁺ channels with different binding kinetics
- 46) Tessa Douma
Differential effects of mood stabilizers on prepulse inhibition deficits in mice with corticotrophin-releasing factor over-expression
- 47) Anne Klomp
Fluoxetine and the developing brain: a pharmacological MRI study in rats
- 48) Anouk van Loon
The effect of a pharmacological intervention on recurrent processing

Group: L (Psychiatric disorders 2)

- 54) Evelien Platje
Neurobiological correlates of Disruptive Behaviour Disorder in a normal population; differences between boys and girls
- 55) Mirjam van Tricht
Reduced Parietal P300 preceding a first psychotic episode
- 56) Addy van Dijk
Deep brain stimulation in Sapap3-mutant mice: an animal model for OCD
- 57) Eva Verbeek
Resequencing of candidate genes for major depressive disorder

- 58) Saskia Woudstra
Analysis plan for the association of the PCLO SNP with functional neuroimaging data
- 59) Hetty Boleij
Judgment bias in a mouse model for "pathological anxiety"

Group: N (Receptors 2)

- 65) Jochem Cornelis
The neuronal regenerating role of PPAR- γ
- 66) Marlies Oostland
The role of the 5-HT₃ receptor in the postnatal development of the cerebellum
- 67) Roxanna Voitcu
Feed-forward and feed-back connections target different glutamate receptor configurations in macaque primary visual cortex
- 68) Emanuele Zurolo
Cannabinoid receptors, CB1 and CB2, expression during human cortical development and in epileptogenic developmental pathologies
- 69) Nils Zuiderveen Borgesius
A non-enzymatic role of CaMKII β in hippocampal synaptic plasticity

Group: P (Sensory system 2)

- 74) Jorrit van Asselt
Characterization of Zebrafish Horizontal Cell
- 75) Pieter Goltstein
Orientation and motion tuning in the mouse visual cortex after visual conditioning: an in vivo 2-photon imaging study
- 76) Henrique Alves
Functional analysis of Crumbs proteins in retina and brain
- 77) Timo van Kerkoerle
Multiple short-term memory signals in monkey primary visual cortex
- 78) Manon Schaap
Development of a rat model to study the emotional component of pain using the somatosensory-evoked potential

Group: R (Signalling 2)

- 84) Fleur Zeldenrust
Two forms of feedback inhibition determine the dynamical state of a small hippocampal network
- 85) Rhea van de Bospoort
Identifying molecular mechanisms underlying dense core vesicle release in neurons
- 86) Anouk Marsman
Glutamatergic neurotransmission in schizophrenia: what happens?
- 87) Juan Zhao
An imbalance of GABA and glutamate in Alzheimer Disease but not in Depression in the superior gyrus of the prefrontal cortex and anterior cingulate cortex
- 88) Natasha Pasricha
Effects of corticosterone pulsatility on the excitability (mEPSCs) of granular neurons of dentate gyrus

Group: S (Signalling 3)

- 89) Juliane Lauks
Neurobeachin: an AKAP involved in the regulation of glutamatergic receptors
- 90) Femke den Boon
Cannabinoid-mediated modulation of synaptic transmission in the rat prefrontal cortex
- 91) Tony Cijssouw
Lifetime at the membrane: The molecular factors that influence tethering and docking of secretory vesicles at their target
- 92) Arthur de Jong
Visualization of synaptic heterogeneity in hippocampal neurons
- 93) Daniëlle van Versendaal
Chronic 2-photon imaging in vivo to study synaptic remodelling

Group: T (White matter)

- 94) Evert-Jan Kooij
Lesion-independent hippocampal pathology in multiple sclerosis: markers for cognitive decline?

- 95) Jeroen Melief
Characterization of human post mortem microglia isolated by FACS sorting
- 96) Marjan Steenweg
MRI pattern recognition in defined hypomyelinating disorders
- 97) Maarten Witte
Mitochondrial alterations in MS brains
- 98) Laura van Berge
Cell type specific differences in mRNA splicing as potential explanation for neural specificity of symptoms in LBSL
- 99) Mark Mizee
MDR efflux transporter expression in Multiple Sclerosis lesions