

# SECOND DUTCH ENDO-NEURO-PSYCHO MEETING

Parkhotel 'De Branding'  
Doorwerth  
2-5 June 2003

[www.enpmeeting.nl](http://www.enpmeeting.nl)

## Organization committee

Gerard Boer (NIH, Amsterdam) president  
Sytze van Dam (UMCU, Utrecht)  
Michaela Diamant (VU, Amsterdam)  
Marjanne Everts (UU, Utrecht)  
Bert Joosten (UM, Maastricht)  
Albert Postma (UU, Utrecht)  
Hanno Pijl (LUMC, Leiden) committee secretariat  
Wim Scheenen (KUN, Nijmegen) treasurer  
Anton Scheurink (RUG, Groningen)  
Jeroen Schmitt (UM, Maastricht) vice-president  
Miranda van Turenhout (KUN, Nijmegen)  
Jenny Visser (EUR, Rotterdam)  
Erno Vreugdenhil (LACR, Leiden)  
Ineke van der Zee (KUN, Nijmegen)

## Secretariat registration

Thea Laan  
e-mail [enpmeeting@neurofederatie.nl](mailto:enpmeeting@neurofederatie.nl)  
Postal address:  
Depts. of Neurophysiology and Molecular and Cellular  
Neurobiology  
Vrije Universiteit  
De Boelelaan 1087  
1081 HV Amsterdam  
The Netherlands

## Secretariat abstracts

Tini Eikelboom  
e-mail [enpmeeting@neurofederatie.nl](mailto:enpmeeting@neurofederatie.nl)  
Postal address:  
Netherlands Institute for Brain Research  
Meibergdreef 33  
1105 AZ Amsterdam ZO  
The Netherlands

Text of website [www.enpmeeting.nl/enp/ENP2003](http://www.enpmeeting.nl/enp/ENP2003)  
(text version of 17 February 2003, update 8 April 2003)

Dear colleagues,

The organizers proudly announce the 2nd Dutch Endo-Neuro-Psycho Meeting, the unique annual meeting for the Dutch endocrinologist and neuroscientist in the broadest sense. This Endo-Neuro-Psycho Meeting 2003 (ENP2003) is the 7th meeting of its kind, which started in 1997 as the 1st Dutch Endo-Neuro Meeting, but since then has grown to the forum of national scientific exchange. A bit of its history and its success story can be found on <http://www.enpmeeting.nl/enp/history>.

One of the aims of the ENPmeeting is to present the most recent developments in clinical and pre-clinical research in various fields of endocrinology and the neurosciences. The present program again offers many exciting sessions in the fields of basal and clinical endocrinology, neuroendocrinology, neurosciences and behavioral neurosciences. To this end, many scientists, participating as moderators in the meeting, have organized topic-oriented sessions in which both internationally well-known speakers from Europe or the USA were invited to present their view on the future prospects as well as junior scientists who will contribute with their latest results in this field. This approach is chosen as to create an ideal atmosphere that promotes interaction between junior investigators and established senior scientists, the important second aim of the meeting.

In addition poster sessions are organized that are open for both young and established scientists. We would like to encourage everybody not only to participate but also to submit an abstract for one of the four poster sessions at the ENP2003.

The ENP2003 will again be held in Parkhotel De Branding in Doorwerth. The pleasant atmosphere of the conference site has proven to be very stimulating for scientific and social exchange in all previous meetings, and no doubt it will do so in 2003. Due to the high number of participants expected, the organizers herewith request to make a choice for room sharing on the registration page, especially for the nights of 3 and 4 June 2003. It permits all your colleagues to be accommodated at the spot.

Finally, the organizers would like to stress and acknowledge the important contribution of the session moderators: they organized the sessions and together they are responsible for the exciting program of this year's meeting. In addition, the 2nd Dutch Endo-Neuro-Psycho Meeting 2003 would not exist without the generous financial support from our sponsors.

On behalf of the organizing committee, we are looking forward seeing you in Doorwerth,

Gerard Boer, chairman

# REGISTRATION AND COSTS

## Registration

The Endo-Neuro Meeting uses its website for registration.

**Deadline for registration is May 1, 2003.** Receipt of your registration will be confirmed by an automatic e-mail.

Definitive confirmation of the registration follows upon receipt of payment of the meeting fee on Postbank account 7905966 of the Endo-Neuro Meeting, K-UL402, Toernooiveld 1, 6525 ED Nijmegen. Reservations can be made definitive only when your meeting fee is received by the deadline of May 15, 2003. Please make sure that the payment is recognizable for the organizers as transferred by you as registrant. Preferably use your personal bank account since transfers through administrative offices usually leads to anonymous 'ghost' payments.

After May 1, e-mail registration will be blocked. Registration is thereafter only possible at the meeting. The on-site meeting fee is however considerably higher (see below). After May 15, hotel accommodation should be arranged by directly contacting Ms. Kitty Lamers at the Parkhotel 'De Branding'. If still available, she will offer you the room prizes as indicated below.

## Call for room sharing

Only early payment of the registration fee guarantees a room in the meeting hotel De Branding on the basis of 'first payed first reserved'. So, don't wait till the payment deadline with your money transfer. Since a limited number of rooms is available, participants are **strongly advised to sign up for room sharing**.

## Submission of poster abstracts

Those who wish to present a poster at the meeting have to submit an English-written abstract. Poster sessions are on Monday 2 June (Endocrinology), on Tuesday 3 June and Wednesday 4 June (Neuroscience 1 and 2) and on Thursday 5 June 6 (Cognitive and Behavioral Neurosciences). Abstracts can only be submitted electronically, **deadline for the submission is April 1, 2003**. Instructions on submission are provided on the information page. Abstracts submitted without registration of the presenting author (before May 1) will not be handled.

Schedule of the poster session will be published on the website before 1 May 2003.

## Registration desk

At the meeting, the registration desk will be open on Monday 2 June from 09.00-13.00 h, and on Tuesday, Wednesday and Thursday 3-5 June from 08.00-13.00 h.

## Costs

Registration fees are listed below (including program booklet, lunch and drinks) and are only valid for advanced registration before 1 May 2003. The day registration fee is waived for speakers for the day of their presentation (once only).

Members of the Netherlands Society for Endocrinology are offered a discount of EUR 20 for the 2-day Endo package, members of the Neurofederation for the 2-day Neuro or Psycho package. Discount is enjoyed only once. Attendance for the full 4-day meeting provides an additional EUR 20 discount irrespective memberships. Speakers are not eligible for this discount except in case of full registration.

A reduced day fee is offered to predoctoral students. It requires identification with the 'collegekaart' at the registration desk during the meeting. If not shown, the routine fee is charged on the spot.

Day	EUR 45
Day (predoctoral students)	EUR 25
Dinner	EUR 25
Single room	EUR 55
Double room (indicate your room mate)	EUR 35
<b>Endo package</b> (for NVE members only)	
(single room day 1 and 2, incl. dinner day 1)	EUR 150
(double room day 1 and 2, incl. dinner day 1)	EUR 130
<b>Neuro package</b> (for Neurofederation members only)	
(single room day 2 and 3, incl. dinner day 2)	EUR 150
(double room day 2 and 3, incl. dinner day 2)	EUR 130
<b>Psycho package</b> (for Neurofederation members only)	
(single room day 3 and 4, incl. dinner day 3)	EUR 150
(double room day 3 and 4, incl. dinner day 3)	EUR 130
Full meeting package (single room)	EUR 420
Full meeting package (double room)	EUR 360

See for more detailed prizes and payment conditions the meeting web site [www.enpmeeting.nl/enp/enp2003](http://www.enpmeeting.nl/enp/enp2003).

The total amount of registration and accommodation costs can be restituted if cancellation is done by e-mail to the address [enpmeeting@neurofederatie.nl](mailto:enpmeeting@neurofederatie.nl) before 15 May 2003. Substitute participations will be accepted.

## Conference site

The conference site is Conferentiecentrum Parkhotel 'De Branding', Kabeljauwallee 35, 6865 BL Doorwerth, tel. +31 (0)317 31 9010, fax +31 (0)317 31 4546, e-mail [info@parkhoteldebranding.nl](mailto:info@parkhoteldebranding.nl). The center is located in the heart of the woods, yet within short distance of public transport facilities.

The Parkhotel 'De Branding' can be reached by public transport from the Arnhem central railway station by a taxi or a 'treintaxi' (railway taxi shuttle), or by the buses 50 and 81 (direction Utrecht) and 80 (direction Amersfoort), stop 'Kievitsdel'.

By car take the exit 19 (Renkum) at the A50 between crossings Grijsoord and Valburg and follow direction Doorwerth for 1200 m and make a turn right on the Van der Molenallee, and finally the third street on the right hand side (Kabeljauwallee).

## Electronic registration only

Find the electronic registration form on the web site of the 2nd Dutch Endo-Neuro-Psycho Meeting 2003 at the address <http://www.enpmeeting.nl/enp/ENP2003>.

# INSTRUCTIONS FOR PRESENTATIONS

## Language

The official language of oral and poster presentations at the meeting is English.

## Abstracts

All oral and poster presenters are requested to submit an English-written abstract for publication in the program booklet.

**Deadline for submission is April 1, 2003.**

The abstract can only be submitted electronically, preferably as attachment to an e-mail, but a s-mail with a floppy disk (MS-DOS-format) will do as well. The secretariat can only handle files in MS-Word and Wordperfect MS-DOS format, not Mac format.

As attachment, it should be e-mailed to the abstract handling secretariat on the address [enpmeeting@neurofederatie.nl](mailto:enpmeeting@neurofederatie.nl) with 'abstract ENP2003' mentioned in the subject box for automatic handling.

When mailed on floppy disc, it can be sent to Ms. Tini Eikelboom, Netherlands Institute for Brain Research, Meibergdreef 33, 1105 AZ Amsterdam ZO, The Netherlands. Receipt of your abstract will be confirmed by e-mail after proper import by the abstract handling secretariat.

Lay-out of the abstracts should be as follow: title, presenting author in italics, asterisk(s) for various collaborating groups, no dots following abbreviations, body text not exceeding 300 words and at the bottom your name and affiliation, finally whether you are a speaker in session # or a poster presenter in the session of your choice.

## Example

The influence of exercise on functional recovery of spinal cord-injured rats  
Aag KN, Rolstoelie J\*, Accord JA van\*\*  
Dept of Neuroregeneration, Univ of Leiden, Leiden, \*Orthopedic Clinic, AZL, Leiden, \*\*Dept of Anatomy, Free University, Brussels, Belgium  
The failure of significant spontaneous recovery following .....  
text should not exceed 300 words.

Karin N. Aag, Department of Neuroregeneration, University of Leiden, Postbus 2000, 2000 NO Leiden, t 071 1234 5678, e-mail [knaag@leidenuniv.nl](mailto:knaag@leidenuniv.nl)

indicate here the session number if are a speaker or the poster session(s) of your choice

Please note once more that the **body text of your abstract should not exceed 300 words**, otherwise it will be published in truncated form. For abstracts of poster presentations it is very important to mark the poster session of choice: Endocrinology on Monday 2 June, Neuroscience 1 on Tuesday 3 June, Neuroscience 2 on Wednesday 4 June or Cognition & Behavioral Neuroscience on Thursday 5 June.

## Oral presentations

Oral presentation times are either 15, 30 or 45 min, all including discussion time. Presentation times are indicated between brackets on the program pages. The moderator of your session will help you keeping your presentation within the allotted time frame.

In all lecture rooms, beamer projectors but no laptops are available. The moderator of the session will provide the laptop facility.

Ideally all PowerPoint presentations of a session should be loaded on one laptop so that no re-plugging is needed between the talks. For smooth projections via the beamer, presenters are therefore requested to put their presentation file on a CD-ROM and contact the moderator of the session so that the files can be loaded on a single laptop computer.

All speakers that cannot escape presenting their data on slides are kindly requested to send a message to the meeting secretariat [enpmeeting@neurofederatie.nl](mailto:enpmeeting@neurofederatie.nl), so that the organization can arrange a slide projector for their talk.

## Poster presentations

The poster session **Endocrinology** will be held on Monday 2 June between 13.00-15.00 h (during which lunch will be served). Posters can be mounted from 09.30 h onwards, and have to be removed before Wednesday June 5 08.30 h.

The poster session **Neuroscience 1** is scheduled on Tuesday 3 June between 15.00-16.30 h. These posters can already be mounted from 08.30 h onwards, and have to be removed before Thursday June 7 08.30 h.

The poster session **Neuroscience 2** is scheduled on Wednesday 4 June 6 between 10.00-11.30 h. These posters can be mounted from 08.30 h onwards, and have to be removed before Friday June 7 08.30 h.

The poster session **Cognitive and Behavioral Neuroscience** is scheduled on Friday June 7 between 10.00-11.30 h. These posters can be mounted on from 08.30 h onwards, and have to be removed at the end of the meeting.

Poster boards are sized 100 cm wide x 120 cm high. Posters are mounted using drawing pins, which are available at the poster session site.

## Poster awards

For the Endocrinology, Neuroscience 1/2 and Cognition and Behavior poster sessions two posters will be awarded for presentation and quality. Poster selection committees appointed by the three scientific program committees will announce the winners in Poster award ceremonies that will be held respectively during the dinner of 2 June (Endocrinology), after the afternoon plenary session on 4 June (Neuroscience 1 and 2 combined) and after the plenary session before lunch on 5 June (Cognitive and behavioral neuroscience).

# PROGRAM MONDAY 2 JUNE 2001

10.15

## Opening

**Gerard Boer** (Amsterdam)

10.30

Session 1 (*Branding*)

## PLENARY SESSION

Chairperson: Marjanne Everts (Utrecht)

**Peter Trainer** (Manchester, UK)

(sponsored by Pharmacia, Woerden)

Metabolic effects of GH antagonism in patients with acromegaly (30)

**Theo Visser** (Rotterdam)

Genetics of thyroid function (30)

11.45

Parallel sessions 2-4

Session 2 (*Doorwerth*)

## THYROID AND THE HEART

Moderators: Marjanne Everts (Utrecht) and Warner Simonides (Amsterdam)

**Warner Simonides** (Amsterdam)

Role of thyroid hormone in heart failure (30)

**Ivaylo Stoykov** (Amsterdam)

Zonal distribution of thyroid hormone receptor isoforms in heart (15)

**Edith Friesema** (Rotterdam)

The role of monocarboxylate transporters in tissue-specific uptake of thyroid hormone (15)

**Sabine van der Heide** (Utrecht)

Thyroid hormone metabolism in cardiac fibroblasts (15)

**Mieke van Beeren** (Amsterdam)

Dronedaron: a thyroid hormone receptor alpha 1 selective antagonist (15)

Session 3 (*Branding*)

## NUCLEAR HORMONE RECEPTORS AS LIPID SENSORS

Moderator: Sander Kersten (Wageningen)

**Pascal Ferré** (Paris, France)

The role of SREBP-1 in the regulation of hepatic lipid and glucose metabolism (30)

**Aldo Grefhorst** (Groningen)

The role of liver X receptors in control of hepatic fat and carbohydrate metabolism (15)

**Robert Kleeman** (Leiden)

New insights into the anti-inflammatory action of PPARalpha (15)

**Stephane Mandard** (Wageningen)

Characterization of PPARalpha target genes (15)

**Tineke Kok** (Groningen)

Effects of FXR-deficiency on bile salt and cholesterol metabolism (15)

Session 4 (*Gelderland*)

## GnRH AND GnRH RECEPTORS IN HUMAN AND NON-HUMAN SPECIES

Moderator: Cornelis Lambalk (Amsterdam)

**Sietse Mosselman** (Oss)

Outline of the issue (15)

**Jimmy Neill** (Birmingham, AL, USA)

GnRH and GnRH receptor genes in the human genome (30)

**Jan Bogerd** (Utrecht)

Differences in structure-function relations between nonmammalian and mammalian gonadotropin-releasing hormone receptors (15)

**Judith Huirne** (Amsterdam)

FSH hormone release: a role for GnRH II? (15)

**Jurgen Piek** (Amsterdam)

GnRH and its receptors in human female reproductive organs

## SATELLITE BIORHYTHM (*Patio*)

13.15

## POSTER SESSION ENDOCRINOLOGY (*Branding*)

15.00

Session 5 (*Branding*)

## MARIUS TAUSK LECTURE

Chairperson: Ron de Kloet (Leiden)

**Jan-Åke Gustafsson** (Stockholm, Sweden)

New paradigms in estrogen signaling

16.30

Parallel sessions 6-8

Session 6 (*Branding*)

## ADULT CONSEQUENCES OF CHILDHOOD ENDOCRINE DISORDERS

Chairperson: Jan Maarten Wit (Leiden)

**Gianni Bocca** (Amsterdam)

Transitional care of pituitary disease, the paediatrician's perspective (15)

**Saskia ten Have** (Rotterdam)

Transitional care of pituitary disease, the adult endocrinologist's perspective (15)

**Nike Stikkelbroeck** (Nijmegen)

Transitional care of congenital adrenal hyperplasia, the paediatrician's and adult endocrinologist's perspective (30)

**Annemieke Boot** (Rotterdam)

Protecting the teenage skeleton against future osteoporosis (30)

Session 7 (*Doorwerth*)

## LOCAL REGULATION OF HORMONE BIOACTIVITY IN TARGET CELLS

Moderator: Theo Visser (Rotterdam)

**Brian Walker** (Edinburgh, UK)

Regulation of corticosteroid bioactivity by 11beta-hydroxysteroid dehydrogenase (30)

**George Kuiper** (Rotterdam)

Regulation of thyroid hormone bioactivity by deiodination (15)

**Hans van Leeuwen** (Rotterdam)

Regulation of vitamin D3 bioactivity by hydroxylation (15)

**Frank de Jong** (Rotterdam)

Testosterone: androgen and estrogen (15)

**Joop Janssen** (Rotterdam)

Regulation of IGF-1 bioactivity by IGF-1 binding proteins (15)

Session 8 (*Gelderland*)

## NEUROENDOCRINOLOGY OF GUT PEPTIDES

Moderators: Tanja Adam (Maastricht) and Anton Scheurink (Groningen)

**Thomas Lutz** (Zürich, Switzerland)

Gastrointestinal and pancreatic hormones in the regulation of energy balance (30)

**Tanja Adam** (Maastricht)

Long term effect of physical activity-induced weight loss on GLP-1 release in overweight subjects (15)

**Cor van der Leest** (Rotterdam)

Ghrelin as a new tumor marker for neuroendocrine tumors (15)

**Esther van der Wall** (Groningen)

Peripheral CCK and the mediation of satiety (15)

**Pieter Wielinga** (Groningen)

Factors mediating glucose uptake from the gastrointestinal tract (15)

21.15

Session 9 (*Branding*)

## 'ORGANON AWARD' LECTURE



# PROGRAM TUESDAY 3 JUNE 2003 (1)

08.30

Session 10 (*Branding*)

## **NVE TEACHING SESSION ON EXPERIMENTS OF NATURE**

Chairperson: Hans Romijn (Leiden)

**Marcel Karperien** (Leiden)

Small and mentally retarded: in search for the gene defect (30)

**Jan Mol** (Bethesda, MD, USA)

Between mouse and man; the dog as a spontaneous model for mammary and prostate cancer (30)

**Sadaf Farooqi** (Cambridge, UK)

Lessons from monogenetic obesity syndromes (30)

10.30

Parallel sessions 11-14

Session 11 (*Doorwerth*)

## **HORMONES AND THE BRAIN: IMPLICATIONS FOR AGING AND COGNITION**

Moderators: Sytze van Dam and Hans Koppeschaar (Utrecht)

**William Sonntag** (Durham, NC, USA)

Growth hormone / IGF-1 and the genesis of brain aging (30)

**Lucia Arwert** (Amsterdam)

Brain imaging, the somatotrophic axis and cognition in aging people (15)

**Marijn Lijffijt** (Utrecht)

Cognitive function and CNS physiology in growth hormone deficiency (15)

**Sanne Manschot** (Utrecht)

Hyperglycemia and cognitive function: a model for accelerated aging? (15)

**Eva Hogervorst** (Oxford, UK)

Role of testosterone in cognitive decline in the elderly (15)

Session 12 (*Gelderland*)

## **CENTRAL REGULATION OF PERIPHERAL ENERGY METABOLISM**

Moderators: Michaela Diamant (Amsterdam) and Hanno Pijl (Leiden)

**Silvana Obici** (New York, NY, USA)

The role of central insulin signaling in peripheral energy metabolism (30)

**Margriet Ouwens** (Leiden)

Insulin signaling in the brain (15)

**Felix Kreier** (Amsterdam)

The role of the autonomic nervous system in energy metabolism (15)

**Celine Morens** (Groningen)

Central regulation of protein metabolism (15)

**Anita van der Hoek** (Leiden)

Central effects of NPY on glucose and lipid metabolism (15)

Session 13 (*Branding*)

## **STRESS HORMONES, ANTI-GLUCOCORTICIDS AND BRAIN FUNCTION**

Moderators: Ron de Kloet and Erno Vreugdenhil (Leiden)

**Ted Dinan** (Cork, Ireland)

Hypothalamic-pituitary-adrenal axis dysfunction in depression: causation and physical consequences (30)

**Martin Verkuyl** (Amsterdam)

Corticosteroids regulate neuronal control of HPA-axis at the level of the PVN (15)

**Alexa Veenema** (Groningen)

Differences in basal and stress-induced changes HPA regulation of wild house mice selected for high and low aggression (15)

**Ron de Kloet** (Leiden)

Antiglucocorticoids: putative action mechanism as anti-depressant (30)

Session 14 (*Patio*)

## **CHILDHOOD EPILEPSY**

Moderator: Onno van Nieuwenhuizen (Utrecht)

**Ineke Bos** (Utrecht)

Early markers of epileptogenesis in blood (15)

**Floor Jansen** (Utrecht)

Diffusion weighted imaging in tuberous sclerosis (15)

**Robbert Notenboom** (Utrecht)

Altered expression of mGluR1 in an animal model of febrile seizures (15)

**Mark Nellist** (Rotterdam)

Constitutional and somatic mutations in tuberous sclerosis complex (15)

**Martin Staudt** (Tübingen, Germany)

Brain plasticity after early lesions in the child (30)

13.30

Parallel sessions 15-17

Session 15 (*Doorwerth*)

## **NEURAL REGULATION OF BODY WEIGHT**

Moderator: Roger Adan (Utrecht)

**Roger Cone** (Portland, OR, USA)

The melanocortin system and the neuroendocrine control of energy homeostasis (30)

**Anneke Alkemade** (Amsterdam)

Thyroid hormone, the human hypothalamus and illness (15)

**Jacqueline Hillebrand** (Utrecht)

Increased melanocortin system activation in activity-based anorexia (15)

**Koert de Vries** (Groningen)

Differential effects of long-term central melanocortin or leptin administration on metabolism and body weight (15)

**Martien Kas** (Utrecht)

Brain region specific forms of obesity (15)

Session 16 (*Branding*)

## **TROPHIC ACTIONS OF ESTROGENS: IMPLICATIONS FOR COGNITION, MOOD AND NEUROPROTECTION**

Moderators: Katalin Horvath and Paul Luiten (Groningen)

**Christian Behl** (Mainz, Germany)

Estrogen neuroprotective activities: an actor on many stages (30)

**Paula Jansen** (Maastricht)

Estrogens affect learning and memory processes in apolipoprotein E knockout mice (15)

**Katalin Horvath** (Groningen)

Trophic actions of estrogens and the cholinergic system (15)

**Marjolein Gerrits** (Groningen)

Female stress vulnerability: the role of estrogens in chronic stress reactivity (15)

**Guillen Fernandez** (Nijmegen)

Hormone and region specific changes in cortical representations of language during the menstrual cycle: an fMRI study (15)

# PROGRAM TUESDAY 3 JUNE 2003 (2)

Session 17 (*Gelderland*)

## **NEUROMODELING: AN APPROACH TO THE STUDY OF EPILEPTOGENESIS**

Moderators: Tineke van Rijn (Nijmegen) and Pauly Ossenblok (Heeze)

**Klaus Lehnertz** (Bonn, Germany)

What can be expected from mathematic models for epileptic phenomena: with in mind the epileptogenesis and consequently the anticipation of, detection of and interference with epileptic seizures (30)

**Fabrice Wendling** (Rennes, France)

Mathematic models for convulsive epileptic phenomena (30)

**Piotr Suffczynski** (Heemstede)

Mathematic models for non-convulsive epileptic phenomena (15)

**Michael van Putten** (Den Haag)

Functional link rates in the human brain and detection of seizures (15)

15.00

## **POSTER SESSION NEUROSCIENCE 1** (*Branding*)

16.30

Parallel sessions 18-20

Session 18 (*Doorwerth*)

## **MARKERS OF NEURODEGENERATIVE DISEASES**

Moderator: Marcel Verbeek (Nijmegen)

**Magnus Sjögren** (Göteborg, Sweden)

Cerebrospinal biomarkers in the diagnosis of dementia disorders (30)

**Niki Schoonenboom** (Amsterdam)

Differentiation of early onset Alzheimer's disease from frontotemporal lobar degeneration by cerebrospinal fluid phospho-tau-181 and amyloid b42 (15)

**Wilson Abdo** (Nijmegen)

Cerebrospinal fluid analysis differentiates Multiple System

Atrophy from Parkinson's disease (15)

**Bart van de Warrenburg** (Nijmegen)

Cerebrospinal fluid autoantibodies in patients with cerebellar ataxia (15)

**Evelien Lemstra** (Amsterdam)

Cerebrospinal fluid 14-3-3 proteins in diagnosing Creutzfeldt-Jakob disease (15)

Session 19

## **EARLY LIFE EVENTS** (*Branding*)

Moderators: Harm Krugers and Marian Joëls (Amsterdam)

**Michael Meany** (Montreal, Canada)

Maternal care, gene expression and the development of individual differences in behavioural and endocrine responses to stress (45)

**Patrick Kamphuis** (Wageningen)

Longterm effects of synthetic steroids on synaptic plasticity (15)

**Mathias Schmidt** (Leiden)

Neuroendocrine and molecular consequences of maternal deprivation in wild type and CRH receptor 1-deficient mice (15)

**Bernette Elzinga** (Leiden)

Late consequences of early traumatic experience in humans (15)

Session 20 (*Gelderland*)

## **GENE THERAPEUTIC APPROACHES IN NEURODEGENERATIVE DISEASES**

Moderator: Gerard Boer (Amsterdam)

**Frits Fallaux** (Amsterdam)

Developments in viral vector-mediated gene therapy (15)

**Anne-Marie van Dam** (Amsterdam)

Towards viral-vector mediated gene transfer in experimental Multiple Sclerosis (15)

**Veerakumar Balasubramaniyan** (Groningen)

Bone marrow stem cells as a source for cell transplantation in MS (15)

**Liselijn Wisman** (Utrecht)

In vivo gene therapy in an in vivo ALS model (15)

**William Hendriks** (Amsterdam)

Towards gene and cell therapy in ventral root avulsion (15)

**Ronald Verwer** (Amsterdam)

Basic studies on human postmortem tissue slices exploring gene therapeutic approaches in AD (15)

21.15

Session 21 (*Branding*)

## **NEUROFEDERATIE LECTURE**

Chairperson: Gerard Boer (Amsterdam)

**Patrick Aebischer** (Lausanne, Switzerland)

GDNF (gene) therapy and PD

# PROGRAM WEDNESDAY 4 JUNE 2003 (1)

08.30

Parallel sessions 22-25

Session 22 (*Renkum*)

## **TRANSGENE ACROSS SPECIES: NEURONAL DEVELOPMENT & PLASTICITY**

Moderator: Ineke van der Zee (Nijmegen)

**Catharina van der Zee** (Nijmegen)

Delayed PNS & CNS axonal outgrowth and behavioural phenotyping in LAR phosphatase-deficient mice (30)

**Rob Collin** (Nijmegen)

Functional studies on beta-amyloid precursor and related proteins in transgenic *Xenopus laevis* (15)

**Chris Jopling** (Utrecht)

Tyrosine phosphorylation in zebrafish development (15)

**Rene Wouda** (Leiden)

The role of the *Drosophila* Wnt protein DWnt5 in CNS development (15)

**Sander van der Linden** (Utrecht)

Novel effectors of G-protein signaling that control behavior in *Caenorhabditis elegans* (15)

Session 23 (*Branding*)

## **EXPERIMENTAL NEUROPHYSIOLOGY 1: NEURONAL NETWORKS AND SYNAPTIC FUNCTIONING**

Moderators: Ype Elgersma and Christian Hansel (Rotterdam)

**Jeffrey Magee** (New Orleans, LA, USA)

Regulation of local dendritic spike initiation and propagation in CA1 pyramidal neurons (45)

**John Weber** (Rotterdam)

Climbing fiber-evoked calcium signals and plasticity in cerebellar Purkinje cells (15)

**Volker Mack** (Amsterdam)

Conditional expression of GluR-A-dependent synaptic plasticity in hippocampal connections (15)

**Ype Elgersma** (Rotterdam)

Genetic enhancement of learning by modulating transmitter release (15)

Session 24 (*Doorwerth*)

## **MOLECULAR MECHANISMS OF NEURITE GROWTH-INHIBITORY FACTORS**

Moderator: Simone Niclou (Amsterdam)

**Christine Bandtlow** (Innsbruck, Austria)

Axonal regeneration in the CNS: role of the inhibitory molecules Nogo and MAG and their receptors (45)

**Mariette Driessens** (Utrecht)

Signalling of the plexin-B1 semaphorin receptor to Rho GTPases (15)

**Joris de Wit** (Amsterdam)

Secreted semaphorins in the adult nervous system: subcellular localization of epitope-tagged sema3A (15)

**Francis van Horck** (Amsterdam)

The role of type I phosphatidylinositol 4 phosphate 5 kinase (PIP kinase) in neurite remodeling (15)

Session 25 (*Gelderland*)

## **BLOOD-BRAIN-BARRIER**

Moderators: Monique Mulder (Maastricht) and Bert de Boer (Leiden)

**Berislav Zlokovic** (New York, NY, USA)

Key role of the blood-brain barrier in the pathogenesis of Alzheimer's disease (30)

**Pieter Gaillard** (Leiden)

The neurovasculature as a targeting organ (15)

**Wouter Veldhuis** (Utrecht)

Interferon-beta attenuates inflammation after acute ischemic stroke (15)

**Paulien Ravenstijn** (Leiden)

Development and use of a new model for Parkinson's disease to ultimately study the relation between disease progression, blood-brain barrier functionality and effects of antiparkinsonian drugs (15)

**Paula Jansen** (Maastricht)

Apolipoprotein E is necessary for the maintenance of the blood-brain barrier integrity during aging; implications for Alzheimer's disease? (15)

10.00

## **POSTER SESSION NEUROSCIENCE 2** (*Branding*)

11.30

Session 26 (*Branding*)

## **HERSENSTICHTING LECTURE**

Chairperson: Pim French (Rotterdam)

**Tim Bliss** (London, UK)

LTP story

13.30

Parallel sessions 27-30

Session 27 (*Branding*)

## **EXPERIMENTAL NEUROPHYSIOLOGY 2**

Moderators: Huib Mansvelder and Arjen Brussaard (Amsterdam)

**Olga Garaschuk** (Munich, Germany)

In vivo imaging of neuronal networks (30)

**Gerard Borst** (Rotterdam)

Vesicle dynamics in a large brainstem terminal (15)

**Huib Mansvelder** (Amsterdam)

Two-photon imaging of cholinergic modulation of PFC networks (15)

**Laurens Bosman** (Munich, Germany)

BDNF-induced longterm plasticity in climbing fiber-Purkinje cell synapses (15)

**Christiaan de Kock** (Amsterdam)

Somatic release induced by NMDA receptor activation in CNS neurons (15)

Session 28 (*Doorwerth*)

## **MOLECULAR MECHANISMS OF LEARNING AND MEMORY**

Moderator: Pim French (Rotterdam)

**Dietmar Kuhl** (Berlin, Germany)

Learning about activity-dependent genes (30)

**Pim French** (Rotterdam)

LTP-associated gene expression (15)

**Matthijs Verhage** (Amsterdam)

Presynaptic plasticity and memory (30)

**Renate Hukema** (Rotterdam)

Genetic analysis of salt adaptation in the nematode *C. elegans* (15)

# PROGRAM WEDNESDAY 4 JUNE 2003 (2)

## Session 29 (*Patio*)

### NEUROGENOMICS

Moderators: Erno Vreugdenhil (Leiden) and Guus Smit (Amsterdam)

**Cor Verweij** (Amsterdam)

A genomic view of complex diseases (30)

**Gerard Martens** (Nijmegen)

A natural knock-down of a gamma-secretase component in a rat model for stress-induced psychopathology (15)

**Dorine Schmidt-Feldker** (Leiden)

Towards the molecular basis of individual differences in vulnerability to stress (15)

**Floor Stam** (Amsterdam)

Genomic response of the dorsal root ganglion after sciatic nerve injury (15)

**Kawan Li** (Amsterdam)

Proteomics analysis of the postsynaptic density (15)

## Session 30 (*Gelderland*)

### SPINAL CORD LESIONS: NEW THERAPIES

Moderator: Frank Hamers (Utrecht)

**Michele Basso** (Columbus, OH, USA)

Recovery of function after spinal cord injury: from bench to bedside (45)

**Tanja Effing** (Utrecht)

The functional effects of treadmill training in three persons with chronic incomplete spinal cord injury (15)

**Guido Koopmans** (Maastricht)

Effects of enriched housing on neuroplasticity in the CPG region (15)

**Susanne Hermanns** (Düsseldorf, Germany)

Suppression of fibrous scarring in a rat model of spinal cord injury leads to functional regeneration

15.30

## Session 31 (*Branding*)

### EKN KEYNOTE LECTURE

Chairperson: Erno Vreugdenhil (Leiden)

**Gert-Jan van Ommen** (Leiden)

From genome to function

16.30

Parallel sessions 32-35

## Session 32 (*Branding*)

### EXPERIMENTAL NEUROPHYSIOLOGY 3

Moderators: Maarten Kamermans and Wytse Wadman (Amsterdam)

**Thomas Euler** (Tübingen, Germany)

Directional-selective calcium signals in dendrites of retinal starburst cells (30)

**Marjelle van Leeuwen** (Amsterdam)

The retinal mechanism of color constancy (15)

**Matthew Larkum** (Heidelberg, Germany)

Signalling of layer 1 and whisker-evoked Ca<sup>2+</sup> and Na<sup>+</sup> action potentials in distal and terminal dendrites of rat neocortical pyramidal neurons in vitro and in vivo (30)

**Michiel Remme** (Amsterdam)

Gain normalization in hippocampal networks with feedback and feedforward inhibition (15)

## Session 33 (*Doorwerth*)

### SCHIZOPHRENIA

Moderator: Jeffrey Glennon (Weesp)

**Gavin Reynolds** (Sheffield, UK)

Amino acid dysfunction in schizophrenia (30)

**Jeffrey Glennon** (Weesp)

Disrupted mediodorsal thalamic-prefrontal cortical transmission in schizophrenia? Carlsson's hypothesis revisited (15)

**Cathalijn Leenaars** (Leiden)

AMPA receptor regulation of thalamocortical transmission (15)

**Annelies Olijslagers** (Amsterdam)

The role of 5-HT<sub>2a/c</sub> receptors in regulating the firing rate of A9 and A10 dopaminergic cell bodies (15)

**Samantha Smith** (Sheffield, UK)

The role of cannabinoids in regulating glutamate and GABA release from the prefrontal cortex (15)

## Session 34 (*Gelderland*)

### SPINAL CORD AND TREATMENT OF PAIN

Moderators: Maarten van Kleef and Bert Joosten (Maastricht)

**Marshall Devor** (Jerusalem, Israel)

Sensory neurons ring out pain (30)

**Jan van Zundert** (Diepenbeek, Belgium)

Pulsed radiofrequency treatment adjacent to the cervical dorsal root ganglion: effects on c-fos expression (15)

**Eline Pragt** (Maastricht)

Models for CRPS-I (15)

**Dorien Vrinten** (Utrecht)

Assessment of mechanical allodynia: a comparison of 'Catwalk' and von Frey measurements (15)

**Kris Vissers** (Beerse, Belgium)

Neuro-immunological changes in neuropathic pain and stress (15)

## Session 35 (*Patio*)

### TRYPTOPHAN, SEROTONIN AND COGNITION

Moderator: Jeroen Schmitt (Maastricht)

**Wim Riedel** (Cambridge, UK)

Tryptophan, mood and cognition (30)

**Cindy Lieben** (Maastricht)

Challenging the cognitive effects of acute tryptophan depletion in the rat (15)

**Lisbeth Evers** (Maastricht)

The effects of tryptophan depletion on cognitive flexibility in healthy volunteers (15)

**Sascha Russo** (Groningen)

Neuropsychological investigation into the carcinoid syndrome (15)

**Linda Booy** (Leiden)

The effects of rapid depletion of tryptophan on cognitive functions in depressive patients: dose-response relationship? (15)

21.15

## Session 36 (*Branding*)

### ELSEVIER LECTURE

chairperson: Peter Hagoort (Nijmegen)

**Christian Keijsers** (Parma, Italy)

From mirror neurons to action understanding



# PROGRAM THURSDAY 5 JUNE 2003 (1)

08.30

Parallel sessions 37-39

Session 37 (*Gelderland*)

## **PSYCHOSOMATICS OF CORTISOL AND TRYPTOPHAN**

Moderator: Jaap Korf (Groningen)

**Markus Schwarz** (Munich, Germany)

Evidence for an altered tryptophan metabolism in fibromyalgia (30)

**Sietse Jan Koopmans** (Lelystad)

Dietary rations of tryptophan to large neutral amino acids affect behaviour and plasma stress hormones in pigs exposed to social stress (15)

**Mattie Tops** (Groningen)

State-dependent regulation of cortical activation by cortisol (15)

**Arthur van Gool** (Rotterdam)

Depression induced by interferon-alpha as a research model on the pathophysiology of depression (15)

**Rob Markus** (Maastricht)

Effect of dietary-induced increases in brain tryptophan and 5-HT on stress and mental performance (15)

Session 38 (*Branding*)

## **MOTOR CONTROL (DISORDERS) AND THE BRAIN**

Moderator: Bert Steenbergen (Nijmegen)

**Yves Rossetti** (Lyon, France)

Mediate action versus here-and-now visuo-motor processing: evidence from optic ataxia (30)

**Ron Keulen** (Maastricht)

The influence of distractors on the control and execution of selective reaching (15)

**Amanda Kaas** (Maastricht)

Haptic processing of object orientation: an fMRI study (15)

**Dominique van Roon** (Nijmegen):

Reaching with a hand held spoon in tetraparesis: effects of perturbation of goal location (15)

**Koen van Braeckel** (Groningen)

Pointing and reaching-grasping behaviour in very pre-term born children (15)

Session 39 (*Doorwerth*)

## **AUDITORY PROCESSING IN THE BRAIN: FROM SOUND TO LANGUAGE**

Moderator: Miranda van Turenout (Nijmegen)

**Elia Formisano** (Maastricht)

Functional MRI of early auditory areas in humans: tonotopy and more (30)

**Michael Schulte** (Nijmegen)

Virtual pitch perception of non-successive harmonics (30)

**Nienke van Atteveldt** (Maastricht)

Graphemes modulate fMRI response to phonemes in auditory cortex (15)

**Frank Eisner** (Nijmegen)

Does perceptual learning in speech perception generalize across speakers? (15)

10.00

## **POSTER SESSION COGNITIVE AND BEHAVIORAL NEUROSCIENCE** (*Branding*)

**SATELLITE GpD** (*Patio*)

11.30

Session 40 (*Branding*)

## **PLENARY SESSION**

Chairperson: invited

**Michael Sullivan** (Montreal, Canada)

Psychological risk factors for pain and pain-related disability

**Philip McGuire** (London, UK)

Neuroimaging of cognitive (dys)functioning in schizophrenics

13.30

Parallel sessions 41-43

Session 41 (*Branding*)

## **FROM PERCEPTION TO ACTION**

Moderator: Peter Hagoort (Nijmegen)

**Ivan Toni** (Nijmegen)

Neural correlates of the perception-action cycle (30)

**Jiska Memelink** (Leiden)

Cognitive coding in action (15)

**Lorenza Colzato** (Leiden)

Feature integration between perception and action (15)

**Floris de Lange** (Nijmegen)

Imaging movement representations (15)

**Rogier Mars** (Nijmegen)

Error-related brain potentials and reward (15)

Session 42 (*Gelderland*)

## **BEHAVIOR MONITORING AND THE BRAIN**

Moderator: Richard Ridderinkhof (Amsterdam)

**Markus Ullsperger** (Leipzig, Germany)

Error monitoring and interference control (30)

**Ellen de Bruijn** (Nijmegen)

Error monitoring and pharmacological effects (15)

**Eveline Crone** (Amsterdam)

Error monitoring and feedback control (15)

**Sander Nieuwenhuis** (Princeton, NJ, USA / Amsterdam)

Error monitoring and reward prediction (15)

**Rob Hartsuiker** (Gent, Belgium)

Error monitoring and speech production (15)

Session 43 (*Doorwerth*)

## **SEX DIFFERENCES AND HORMONAL MECHANISMS IN SPATIAL ABILITY**

Moderator: Albert Postma (Utrecht)

**Daniel Voyer** (New Brunswick, Canada)

Influence of sex hormones and experience on sex differences in spatial abilities (45)

**Sander Zuidhoek** (Utrecht)

Sex differences in haptic spatial performance (15)

**Channa de Winter** (Utrecht)

Meta-analysis of testosterone effects on spatial cognition (15)

**Celina Cohen** (Utrecht)

Prenatal exposure to testosterone and spatial ability: a twin study (15)

# PROGRAM THURSDAY 5 JUNE 2003 (2)

15.30

Parallel sessions 44-46

Session 44 (*Gelderland*)

## **PREDICTORS AND COGNITIVE DEVELOPMENT IN ADHD**

Moderator: Hans Vles (Maastricht)

**Hans Vles** (Maastricht)

ADHD, chemistry between structure and function (30)

**Jos Hendriksen** (Maastricht)

Precursors of ADHD questionnaire: development and psychometric properties (15)

**Dorine Slaats-Willemse** (Utrecht)

Cognitive endophenotyping in ADHD (15)

**Anne-Claire Beernink** (Utrecht)

Predictors of externalizing problems in among 14 months old children (15)

**Petra Hurks** (Maastricht)

Cognitive profile of school-aged children suffering from ADHD (15)

Session 45 (*Doorwerth*)

## **COGNITIVE POTENTIALS IN HUMANS AND ANIMALS**

Moderator: Gilles van Luitelaar (Nijmegen)

**Jurij Brankack** (Prague, Czech Republic / Riken, Japan)

Oddball in rats: P300 and beyond (30)

**Arjan Blokland** (Maastricht)

Electrophysiological correlates of mismatch negativity in rats (15)

**Natasja de Bruin** (Beerse, Belgium)

The rat as an animal model to investigate the neural substrate of P50 gating in humans (15)

**Gilles van Luitelaar** (Nijmegen)

Discrimination learning and ERPs in the amygdala of rats (15)

**Anke Sambeth** (Nijmegen)

Occasion setting in humans and rats: an ERP study (15)

Session 46

## **SPATIAL COGNITION (*Branding*)**

Moderator: Miranda van Turenout (Nijmegen)

**Neil Burgess** (London, UK)

Spatial memory and the hippocampus (30)

**Gabriele Janzen** (Nijmegen)

Navigational relevance of object location encoded in parahippocampal gyrus: an fMRI study (15)

**Daniel Haun** (Nijmegen)

Cognitive maps of impossible spaces (15)

**Marieke Scholvinck** (Utrecht)

Knowing roughly where versus exactly where: an ERP study on categorical and coordinate spatial processing (15)

**Marieke van Asselen** (Utrecht)

Planning and remembering spatial searches in Korsakoff patients (15)

17.00

Closure