Tenth Annual Meeting of the Organization for Human Brain Mapping

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NeuroImage
Special Issue

Tenth Annual Meeting of the Organization for Human Brain Mapping

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WELCOME REMARKS

Welcome to the Tenth Annual Meeting of the Organization for Human Brain Mapping (OHBM) in Budapest, Hungary. The venue of this meeting is the Budapest Congress Centre, which will provide enriching academic experiences combined with easy access to the cultural attractions of Budapest.

The OHBM has experienced explosive growth in the development of the field of functional neuroimaging. We hope that this meeting will provide the participants with a stimulating environment for an exchange of ideas on the workings of the human brain.

This year's scientific program reflects the burgeoning variety, steady increase, and strength of research into the functional organization of the human brain. This meeting retains the traditions of the OHBM by organizing single platform sessions throughout the whole event. In this way, the participants can attend all of the special lectures, symposia, and oral paper presentations. The poster sessions have been organized so that each poster will be displayed for 1 full day, and both the presenters and the interested researchers will have ample time to discuss the posters. The final poster reception on Thursday will include a wine and cheese party. This year's program features the Talairach lecture by Wolf Singer, Director of the Max-Planck-Institute in Frankfurt. The Keynote speakers are internationally recognized leaders in their field and represent a wide diversity of disciplines.

The Educational Program has been a great success at the past meetings and we will not only maintain this custom but also expand it: for the first time, two 1-day educational courses are offered. The popular fMRI course along with the Multireceptor Mapping with PET course will be held on Sunday, June 13. Following these courses will be the opening ceremonies and the Talairach lecture. Each day of the meeting will begin with three morning workshops from 8:00 to 9:20 am.

Also, be sure to visit the exhibits, which are located outside of the Room Pátria (Conference Level) and on the Gallery Level (Level 2) near the Cyber Café. This year, the OHBM will host a complimentary manufacturer's lunch, where sponsors will make brief presentations of their latest products, services, and activities. Space will be limited to 300 attendees. Tickets can be obtained at registration.

A Board of Councilors elected by its membership governs the OHBM. If you are not a member of the OHBM, we encourage you to become members of the organization and participate in its future growth. Please visit the Organization's website at www.humanbrainmapping.org.

We are glad that you have joined us in Budapest for what promises to be a uniquely exciting meeting in one of the most splendid cities in the world!

Balázs Gulyás
Chair, Local Organizing Committee

Marc Raichle
Chair, OHBM Council

Susan Bookheimer
Chair, Scientific Program Committee

GENERAL INFORMATION

Conference Venue
Budapest Congress Centre (BCC)
H-1123
Budapest, Jagelló út 1-3
Phone: +361-372-5400
Fax: +361-372-5735
All events take place in the BCC unless otherwise noted.

Hotels

Budapest Marriott Hotel	361-266-7000
City Hotel Matyas	361-338-4711
City Hotel Pilvax	361-266-7660
Congress Park Hotel Flamenco	361-889-5600
Hotel Bara	361-209-4905
Hotel Charles	361-212-9169
Hotel Classic	361-319-7222
Hotel Taverna	361-485-3100
Novotel Budapest Congress	361-372-5400
Mediterran	361-372-7020
Sofitel Atrium Budapest	361-266-1234

Registration Hours
Entrance Level
Sunday, June 13—7:00–18:00
Monday, June 14—7:30–18:00
Tuesday, June 15—7:30–18:00
Wednesday, June 16—7:30–18:00
Thursday, June 17—7:30–12:00

Exhibits
Exhibits will be held outside the Room Pátria on the Conference Level and also on the Gallery Level (Level-2).
Hours:
Monday, June 14—11:00–19:00
Tuesday, June 15—8:00–19:00
Wednesday, June 16—8:00–19:00
Thursday, June 17—8:00–14:00

Town Hall Meeting
Tuesday, June 15, 18:00–18:30
Room Pátria (Conference Level)

Manufacturer's Lunch
Tuesday, June 15, 12:00
Bartók (Conference Level)
This lunch will feature brief presentations of the latest products, services, and activities offered by exhibitors at the HBM 2004 meeting. **Lunch is complimentary but you must have a ticket**. Space is limited to 300 and will be granted on a first-come, first-serve basis. Tickets can be obtained at the Registration Desk.

Social Programs
All events require a ticket. Complimentary and prepaid tickets will be included in the attendee's materials. Additional tickets can be purchased at the registration desk on the Entrance Level (Level-1) of the Budapest Congress Centre.

Opening Reception
Sunday, June 13, 19:00
Budapest Congress Centre
Conference Level
Join us for an evening of authentic Hungarian food and wine. **Event is complimentary but a ticket is required**.

EUROPA Boat Cruise
Tuesday, June 15, The Opening Reception is sponsored in part by Siemens Aktiengesellschaft Medical Solutions.
Shuttle buses depart from BCC 19:30
Do not miss this special cruise and dinner on the River Danube, where you'll enjoy magnificent views of historical Budapest. Sailing downstream in the setting sun and back with sparkling lights, you will catch sight of Margaret Island, the Parliament, Hotel Gellért, the Liberation Monument, graceful bridges and a variety of stunning Budapest architecture—all this while tasting traditional Hungarian fare and other wonderful international specialties. Cost is 15.000 HUF and pre-registration is recommended. Tickets are on a first-come, first-serve basis.

Rock 'n' Roll Party
Wednesday, June 16, 21:00
Event is sponsored by Philips Medical Systems
Additional information is included in your registration packet.

Tours
If you purchased tickets in advance for tours (Budapest Sightseeing, Lake Balaton, Danube Band and Hortobagy) they will be included in the attendee's materials. Additional tickets can be purchased at the Registration Desk on a first-come, first-serve basis.

Speaker Ready Room/Cyber Café
Gallery Level (Level-2)
Hours:
Sunday, June 13 to Wednesday, 16—8:00–18:00
Thursday, June 17—8:00–17:00
Complimentary terminals and Internet connections will be available in the Cyber Café on the Gallery Level (Level-2) of the BCC for all presenters and attendees. Wireless Internet will also be available throughout the Cyber Café. The network will support both 802.11a and 802.11b cards. A limited number of wireless network cards will be available on-site for rent or purchase. Anyone interested in using the network will need a laptop and a wireless network card. On-site support will be very limited.

MEETING PROGRAM SCHEDULE

fMRI COURSE Sunday, June 13, 2004

Budapest Congress Centre
Room Pátria, Conference Level

The fMRI Course is incorporated formally as part of HBM 2004. This course immediately precedes the main conference. All members of the faculty of speakers and chairs are internationally leading fMRI scientists, with excellent reputations for clear teaching presentations. There will be opportunities to ask questions of the experts during the course.

There is an additional fee and registration is required. CME credit will be available for this activity only.

CME CREDIT: This activity has been planned and implemented in accordance with the Essential Areas and Policies of the Accreditation Council for Continuing Medical Education through the joint sponsorship of the Minnesota Medical Association and The Organization for Human Brain Mapping. The Minnesota Medical Association is accredited by the ACCME to provide continuing medical education for physicians.

The MMA designates this educational activity for a maximum of 8.0 category 1 credits toward the AMA Physician's Recognition Award. Each physician should claim only those credits that he/she actually spent in the activity.

fMRI Course Schedule

8:00–8:10	**Introduction to the course**	Jean-Baptiste Poline
8:10–8:45	**Motivation**	Marcus Raichle
8:45–11:00	**Biophysical signal and acquisition**	Chair: Mark Cohen
8:45–9:15	From neural events to BOLD	Arno Villringer
9:15–9:45	Acquisition and reconstruction: problems and solutions at low and high fields	Peter Jezzard
9:45–10:15	Biggest unknowns in BOLD contrast	Peter Bandettini
10:15–10:45	EEG/fMRI conjoint recordings: are they useful?	Helmut Laufs
10:45–10:55	The three best advances in terms of bio-physics and acquisition	Ravi Menon
10:55–11:00	**Discussion**	
11:00–11:30	**Break**	
11:30–12:30	**Data Analysis 1**	Chair: Frithjof Kruggel
11:30–12:00	Realignment/Normalization/Localization issues	Matthew Brett
12:00–12:25	Effect estimation and testing	Thomas Nichols
12:25–12:30	**Discussion**	
12:30–13:30	**Lunch on own**	
13:30–15:00	**Data Analysis 2**	Chair: Keith Worsley
13:30–13:55	HRF modeling and the Bayesian choice	Gabriele Lohmann
13:55–14:20	Beyond blobology—Multivariate analysis	Ed Bullmore
14:20–14:45	Computational aspect of data analysis	Kate Fissell
14:45–14:55	The three new methods that I liked best	Karl Friston
14:55–15:00	**Discussion**	

15:00–15:30	**Break**	
15:30–17:30	**Experimental design**	
15:30–16:00	Sensitivity in experimental designs: event, block, or mixed?	Rik Henson
16:00–16:30	Issues in factorial design, cognitive subtraction and the baseline problem	Christophe Pallier
16:30–17:00	Brain and behavior: data analysis that takes more than the paradigm	Lea Williams
17:00–17:30	Clinical fMRI: comparing patients and normals	Paul Matthews
17:30–17:45	The three paradigms that I liked best	Steven Petersen
17:45–18:00	**Discussion and questions**	Jean-Baptiste Poline

MULTIRECEPTOR MAPPING with PET Sunday, June 13, 2004

Budapest Congress Centre
Room Lehár, Conference Level

The objective of the course is to provide the audience with a state-of-the-art overview of:

(1) the main central neuroreceptor systems in primates, with special regard to the human brain;
(2) the radiochemical background and in vivo imaging techniques (with special regard to PET) used to map the central neuroreceptor systems in humans;
(3) multiligand receptor fingerprinting of the human brain under physiological conditions;
(4) the changes in normal receptor fingerprints in neurological and psychiatric diseases; and
(5) mathematical models and advanced image analysis techniques used/usable in multireceptor fingerprinting.

Multireceptor Mapping with PET Course Schedule

8:00–8:15	**Introduction to the course**	Balázs Gulyás
8:15–9:15	**Central neurotransmitter and neuroreceptor systems in primates**	
8:15–8:45	Neurotransmitters in the human brain	Miklós Palkovits
8:45–9:15	Synaptic versus non-synaptic neurotransmission	E. Sylvester Vizi
9:15–10:15	**Post-mortem mapping of the major neuroreceptor systems in humans**	
9:15–9:45	Post-mortem receptor mapping of the monkey and human brain	Håkan Hall
9:45–10:15	Receptor fingerprinting of cortical areas in the human brain	Karl Zilles
10:15–10:45	**Break**	
10:45–12:45	**Background for in vivo mapping of the major neuroreceptor systems in humans**	
10:45–11:15	Radioligands for multireceptor mapping of the human brain I	Vic Pike
11:15–11:45	Radioligands for multireceptor mapping of the human brain II	Christer Halldin
11:45–12:15	Modeling in multireceptor mapping	Albert Gjedde
12:15–12:45	Receptor parametric mapping	Roger N. Gunn
12:45–13:45	**Lunch on own**	
13:45–15:45	**Receptor fingerprinting of the human brain: normal situation**	
13:45–14:15	Psychobiology of human personality	Robert Cloninger
14:15–14:45	Neuroreceptor imaging provides a link between genetics and higher brain functions	Lars Farde
14:45–15:15	Receptor fingerprinting of the human brain in various challenge conditions with PET	Balázs Gulyás
15:15–15:45	Data-mining tools for the analysis of multireceptor data	Zsolt Cselényi
15:45–16:15	**Break**	
16:15–17:15	**Receptor fingerprinting of the human brain: neurological and psychiatric diseases**	
16:15–16:45	Multireceptor fingerprinting of schizophrenia	Tetsua Suhara
16:45–17:15	The glial response in neurological diseases	Richard Banati
17:15–17:30	General discussion. Closing remarks.	Balázs Gulyás

MEETING PROGRAM SCHEDULE

Sunday evening, June 13, 2004

Budapest Congress Centre
Room Pátria, Conference Level

18:00–19:00
OPENING CEREMONIES
Young Investigator Award

Talairach Lecture: Wolf Singer
"In Search of the Neural Code: Time as Coding Space in Cortical Processing"

19:00–20:00
OPENING RECEPTION
Budapest Congress Centre
Conference Level

This event is sponsored in part by
Siemens Aktiengesellschaft Medical Solutions.

MEETING PROGRAM SCHEDULE

MORNING WORKSHOPS Monday, June 14, 2004

8:00–9:20

Cutting edge of fMRI and high field fMRI — **Pátria, Conference Level**

Chair: Allen Song

BOLD imaging to probe fast neuronal events
Seiji Ogawa
BOLD imaging to investigate cortical columns
Dae-Shik Kim
Vascular space occupancy-dependent fMRI
Peter van Zijl
Apparent diffusion coefficient-dependent fMRI
Allen Song

Pharmacological fMRI — **Bartók, Conference Level**

Chair: Elliot Stein

Pharmacological MRI: issues and applications
Elliot A. Stein
Mapping dopamine receptor function using MRI
Bruce G. Jenkins
MR-Spectroscopy and monitoring of treatment effects in psychiatry
Dieter F. Braus

Permutation testing in functional brain imaging — **Brahms/Lehár, Conference Level**

Chair: Daniel Kimberg

Overview of permutation methods in fMRI
Geoffrey K. Aguirre
Powerful and valid cluster size inference with permutation methods
Satoru Hayasaka
Resampling fMRI data in time and wavelet domains
Ed Bullmore

Room Pátria

9:30–11:00
LOCAL ORGANIZING COMMITTEE CHAIR'S SYMPOSIUM
Chair: Balázs Gulyás

What do we measure?—The origins of the signal. . .
Per E. Roland—Cortical computations and cortical depolarization
György Buzsáki—The metabolic cost of maintaining the cortical GABAergic interneuron network
Martin Lauritzen—The neurophysiological correlates of neuroimaging signals
Albert Gjedde—Flow-metabolism coupling: the new synthesis

11:00–12:00
Poster Session/Coffee Break
Odd-Numbered Posters (MO 1–MO 384)
Language; Emotion & Motivation and Development & Aging
Coffee break sponsored by GE Healthcare

12:00–13:30
Lunch on own

13:30–15:00
Symposium:
Understanding Neuropsychological Deficits: Lesion Analysis and Functional Neuroimaging
Co-Chairs: Ferdinand Binkofski and Gereon Fink
John C. Marshall—Introduction
Gereon R. Fink—Visuo-spatial cognition/neglect
Cathy J. Price—Language/aphasia
F.C. Binkofski—Higher motor cognition/apraxia

15:00–16:30
Poster Session/Coffee Break
Even-Numbered Posters (MO 1–MO 384)
Language; Emotion & Motivation and Development & Aging

16:30–17:00
Keynote Lecture: Alex Martin
"Objects, Concepts, and the Brain"
Introduction: Kate Watkins

17:00–18:00
Oral Session: Language and Development
Co-Chairs: Kate Watkins and Jay Giedd

17:00–17:10	**A receptor- and cytoarchitectonic correlate of the functionally defined inferior-frontal junction area** Katrin Amunts, Institute of Medicine, Juelich, Germany	**Poster #TH 3**
17:10–17:20	**Learning to read a dialect: ER-fMRI evidence from Sudtirol** Jubin Abutalebi, Vita-Salute San Raffaele University & Scientific Institute, Milan, Italy	**Poster #MO 1**
17:20–17:30	**Fast visual brain specialization for print with learning to read** Daniel Brandeis, University of Zurich, Zurich, Switzerland	**Poster #MO 292**
17:30–17:40	**Double dissociation for irregular and pseudo word reading in semantic and phonological frontal areas** Andrea Mechelli, FIL, London, UK	**Poster #MO 64**

SCIENTIFIC PROGRAM CONTINUED

17:40–17:50 **Event-related fMRI reveals modality-independent repetition priming in object and spoken word naming after a 1-day delay.** **Poster #MO 154**
Miranda van Turennout, F.C. Donders Centre for Cognitive Neuroimaging, Nijmegen, The Netherlands

17:50–18:00 **Time course of use of semantic and syntactic context information during spoken-word processing** **Poster #MO 15**
Dannie Van den Brink, F.C. Donders Centre for Cognitive Neuroimaging, Nijmegen, The Netherlands

18:00–19:00
Poster Reception
All Posters (Odd and Even) (MO 1–MO 384)
Language; Emotion & Motivation and Development & Aging

MEETING PROGRAM SCHEDULE

MORNING WORKSHOPS Tuesday, June 15, 2004

8:00–9:20

Oscillations and synchrony **Pátria, Conference Level**

Chair: Pascal Fries

Tomographic mapping of functional connectivities from MEG recordings
Joachim Gross
Imaging of synchronous cortical networks during binocular rivalry
Olivier David
Functional roles of neuronal oscillatory synchronization in human cognition
Pascal Fries

DTI and tracking **Bartók, Conference Level**

Chair: Jean-Francois Mangin

Introduction to the DTI concepts
Dereck Jones
Fiber tracking and anatomical connectivity from diffusion MRI
Jean-Francois Mangin
Applications of DTI and tractography
Geoffrey Parker

Depression **Brahms/Lehár, Conference Level**

Chairs: Tomas Paus and Richard Davidson

Functional imaging of mood and depression
Richard Davidson
Imaging the serotonergic system in depression
Zubin Bhagwagar
Transcranial magnetic stimulation and treatment of depression
Armand Hausmann

Room Pátria

9:30–10:00
Keynote Lecture: Edmund Rolls
"Short Term Memory, Visual Attention and Emotion: From Synaptic Activity Through Neurophysiology and Computational Neuroscience to fMRI Signals"
Introduction: John Gabrieli

10:00–11:00
Oral Session: Memory and Emotion & Motivation
Chair: John Gabrieli

10:00–10:10	**Placebo in emotional processing in expectation of anxiety relief activates a generalized modulatory network** Predrag Petrovic, Karolinska Institute, Stockholm, Sweden	**Poster #MO 218**
10:10–10:20	**A deficient reward system in pathological gambling** Christian Buchel, Hamburg University, Hamburg, Germany	**Poster #MO 249**
10:20–10:30	**Psychogenic and somatic pain share overlapping cortical networks** Tuukka T. Raij, Athinoula A. Martinos Center for Biomedical Imaging, Charlestown, MA	**Poster #TH 126**
10:30–10:40	**Neural response to tryptophan depletion in remitted depression and serotonin transporter genotype** Allison Nugent, National Institute of Mental Health, Bethesda, MD	**Poster #TU 183**
10:40–10:50	**A combined fMRI and ERP study of facial emotion recognition deficits in schizophrenia** Patrick J. Johnston, University of Newcastle, Callaghan, NSW, Australia	**Poster #TH 205**
10:50–11:00	**Evidence for a sustained hippocampal response to fearful faces in schizophrenia** Daphne J. Holt, Massachusetts General Hospital, Charlestown, MA	**Poster #MO 260**

11:00–12:00
Poster Session/Coffee Break
Odd-Numbered Posters (TU 1–TU 378)
Memory & Learning; Physiology, Metabolism & Neurotransmission and Sensation & Perception

12:00–13:30
Manufacturer's Lunch (Tickets Required)
Bartók (Conference Level)
or lunch on your own

13:30–15:00
Symposium:
The Need to Feed is Food for Thought: What Food Reward Can Teach Us About Brain Function
Co-Chairs: Dana Small and Robert Zatorre
Dana Small—Primary sensory representation in limbic cortex: what's different about taste and smell?
David Zald—Beyond taste: the neural correlates of oral temperature and texture hedonics
Jay Gottfried—Great expectations: the neural substrates of predictive food reward
Alain Dagher—Feeding and drug addiction: convergence and departure

15:00–16:30
Poster Session/Coffee Break
Even-Numbered Posters (TU 1–TU 378)
Memory & Learning; Physiology, Metabolism & Neurotransmission and Sensation & Perception

SCIENTIFIC PROGRAM CONTINUED

16:30–17:00
Keynote Lecture: Ivanka Savic
"Imaging of Human Olfaction"
Introduction: Deb Hall

17:00–18:00
Oral Session: Sensation, Perception and Motor Behavior
Chair: Deb Hall

17:00–17:10	**In vivo structure—function studies of primary motor, premotor and somatosensory areas using high-resolution structural MR imaging** Nathan Walters, Howard Florey Institute, Melbourne, Parkville VIC, Australia	**Poster #WE 71**
17:10–17:20	**rTMS elicits tactile discrimination improvement and parallel plastic reorganization in human SI** Patrick Ragert, Ruhr-University, Bochum, Germany	**Poster #TU 287**
17:20–17:30	**That's my hand! Activity in the premotor cortex reflects the sense of ownership of a limb** H. Henrik Ehrsson, Wellcome Department of Cognitive Neurology, London, UK	**Poster #TU 222**
17:30–17:40	**The perception of horizontal apparent motion is accompanied by increased oscillatory coupling of the two hemispheres** Michael Rose, Hamburg University, Hamburg, Germany	**Poster #TU 291**
17:40–17:50	**Parallel imaging reveals patchy organization within the superior temporal sulcus multimodal region** Michael S. Beauchamp, National Institute of Mental Health, Bethesda, MD	**Poster #TU 198**
17:50–18:00	**When Maggy becomes Marilyn: neural correlates of physical and categorical aspects of face identity** Pia Rotshtein, Wellcome Department, London, UK	**Poster #TU 292**

18:00–18:30
Town Hall Meeting
Room Pátria

18:00–19:00
Poster Reception
All Posters (Odd and Even) TU 1–TU 378
Memory & Learning; Physiology, Metabolism & Neurotransmission and Sensation & Perception

19:30
Optional Boat Cruise (Tickets Required)
Shuttle buses depart from the Budapest Congress Centre at 19:30

MEETING PROGRAM SCHEDULE

MORNING WORKSHOPS Wednesday, June 16, 2004

8:00–9:20

The brain as a dynamical system?
Bridging the gap between modeling and the data — **Pátria, Conference Level**

Chair: Karl Friston

Coupled nonlinear dynamical systems as neuronal models
Michael Breakspear
Nonlinear dynamical systems as models for EEG
Viktor Jirsa
Bayesian selection of dynamic causal models for fMRI
Will Penny
Bayesian models for multimodal fusion
Pedro Valdes Sosa

Real-time fMRI — **Bartók, Conference Level**

Chair: Stefan Posse

Real-time analysis of the spatial boundaries of fMRI activation
James T. Voyvodic
Real-time fMRI used as a brain–computer interface: From research to teaching
Nikolaus Weiskopf
Real-time and near real-time fMRI: From workbench to clinical applications
Seung-Schik Yoo
Interactive real-time fMRI with TurboFIRE: Technical development and neuroscience applications
Stefan Posse

Brain mapping and drug discovery — **Brahms/Lehár, Conference Level**

Chair: Ed Bullmore

What does big pharma want from brain mapping?
Liqun Wang
Multicenter treatment trials using MRI
Alan Evans
Discovery and regulatory opportunities for biomarkers
Gregory A. Sorensen
Integrative biomarkers and international databases
Evian Gordon

Room Pátria

9:30–10:00
Keynote Lecture: Jon Driver
"Neural Correlates and Consequences of Visual and Crossmodal Spatial Attention in the Normal and Damaged Human Brain"
Introduction: Katsuyuki Sakai

10:00–11:00
Oral Session: Cognition
Chair: Katsuyuki Sakai

10:00–10:10	**The hippocampus and the surrounding cortex play different roles in memory** Elizabeth A. Buffalo, National Institute of Mental Health, Bethesda, MD	**Poster #TU 11**
10:10–10:20	**Distinct effects of selective attention on repetition priming: an event-related fMRI and intracranial ERP study** Peter Klaver, University of Bonn, Bonn, Germany	**Poster #TU 34**
10:20–10:30	**Functional changes in activation of retinotopic visual cortex in patients with right parietal damage and left visuospatial neglect** Patrik Vuilleumier, University Medical Center, Geneva, Switzerland	**Poster #TH 245**
10:30–10:40	**Modulation of long-range neural synchrony associated with changes in visual attention** Joachim Gross, Heinrich Heine University, Dusseldorf, Germany	**Poster #TH 35**
10:40–10:50	**Processing capacity in the FFA and PPA in a spatial working memory task** Kim M. Curby, Vanderbilt University, Nashville, Tennessee	**Poster #TH 26**
10:50–11:00	**Do conscious intentions cause actions?** Hakwan Lau, University of Oxford, Oxford, UK	**Poster #TH 73**

11:00–12:00
Poster Session/Coffee Break
Odd-Numbered Posters (WE 1–WE 395)
Motor Behavior and Modeling & Analysis

12:00–13:30
Lunch on own

13:30–15:00
Symposium:
Mapping Numbers in the Brain: From Number Neurons to Dyscalculia
Chair: Valéria Csépe
Andreas Nieder—Representation of numerical information by single neurons in non-human primates
Stanislas Dehaene and Manuela Piazza—Imaging the human parietal code for number
Dénes Szűcs and Valéria Csépe—Numerical distance effect in blind: evidence for the hardwiring of numerical abilities
Nicolas Molko—The cerebral basis of dyscalculias: anatomical, functional, and diffusion MRI

15:00–16:30
Poster Session/Coffee Break
Even-Numbered Posters (WE 1–WE 395)
Motor Behavior and Modeling & Analysis

SCIENTIFIC PROGRAM CONTINUED

16:30–17:00
Keynote Lecture: Colin Blakemore
"Brain Plasticity: When, Why, How?"
Introduction: Peter Jezzard

17:00–18:00
Oral Session: Physiology and Imaging Methods
Chair: Peter Jezzard

17:00–17:10	**Calibrating BOLD fMRI response latencies using Gd-DTPA bolus washout dynamics** Rasmus M. Birn, National Institute of Mental Health, Bethesda, MD	**Poster #WE 136**
17:10–17:20	**CBV-based fMRI has improved temporal resolution compared to BOLD fMRI** Afonso Silva, University of San Paulo Medical School, Sao Paulo, Brazil	**Poster #WE 305**
17:20–17:30	**MEG Correlates of the fMRI BOLD Response to Visual Stimulation** Matthew J. Brookes, University of Nottingham, Nottingham, UK	**Poster #TH 262**
17:30–17:40	**MRI Sensitivity and imaging speed improvements with a 16-channel receive-only brain coil array at 3.0 Tesla** Jacco A. de Zwart, National Institute of Neurological Disorders, Bethesda, MD	**Poster #TH 267**
17:40–17:50	**Subdivision of the human pallidum using diffusion tractography** Emma Sillery, University of Oxford, Oxford, UK	**Poster #TH 335**
17:50–18:00	**Interictal EEG-correlated functional MRI: a study of 62 patients with localization-related epilepsy** Afraim Salek-Haddadi, UCL Institute of Neurology, London, UK	**Poster #TH 386**

18:00–19:00
Poster Reception
All Posters (Odd and Even) WE 1–WE 395
Motor Behavior and Modeling & Analysis

21:00
Rock 'n' Roll Party (Tickets Required)

MEETING PROGRAM SCHEDULE

MORNING WORKSHOPS Thursday, June 17, 2004

8:00–9:20

Cognitive Modularity **Pátria, Conference Level**

Chair: Benjamin Martin Bly

Replicability and localization of function in neuroimaging
Stephen Strother
Systematic noise and the interpretation of spatial maps in fMRI
Benjamin Martin Bly
Distributed cortical representations and conceptual knowledge
James Haxby

Mixed effects modeling **Bartók, Conference Level**

Chairs: Steve Smith and Tom Nichols

Overview of hierarchical modeling
Tom Nichols
Empirical Bayes and posterior probability maps
Karl Friston
A fully Bayesian approach to hierarchical modeling
Mark Woolrich

Genetics **Brahms/Lehár, Conference Level**

Chair: Paul Matthews

Studies of brain development for understanding heritable neuropsychiatric disease
Sarah Durston
Using voxel-based morphometry to analyze structural images in a monogenic disorder of speech and language
Kate Watkins
New analytical approaches for examining brain structure using magnetic resonance imaging
Bruce Fischl
Mapping genetic influences on brain structure
Paul Thompson

Room Pátria

9:30–11:00
Symposium:
Decreases in Cerebral Blood Flow, BOLD Signals and Their Neuronal Correlates
Chair: Amir Shmuel
Marcus Raichle—The resting brain, baseline activity, and deactivations
Louis Lemieux—BOLD signal decreases observed with simultaneous EEG and fMRI
Arno Villringer—Near infrared spectroscopy and neuronal correlates of negative BOLD signal
Amir Shmuel—Sustained negative hemodynamic response in the human brain and its neuronal correlates in the monkey
On the interpretation of the negative hemodynamic and BOLD responses
Discussion Panel:
Nikos Logothetis, Marcus Raichle, Louis Lemieux, Arno Villringer, Amir Shmuel

11:00–12:00
Poster Session/Coffee Break
Odd-Numbered Posters (TH 1–TH 397)
Cognition & Attention and Imaging Techniques

12:00–13:00
Lunch on own

13:00–14:00
Poster Session/Coffee Break
Even-Numbered Posters (TH 1–TH 397)
Cognition & Attention and Imaging Techniques

14:00–14:30
Keynote Lecture: Arthur Toga
"Informatics, Modeling and Analysis"
Introduction: Frederico Turkheimer

14:30–15:30
Oral Session: Modeling and Analysis
Chair: Frederico Turkheimer

14:30–14:40	**3D structural parcellation of the human cerebral cortex using in vivo high-resolution MR images** Rhodri H. Davies, University of Melbourne, Melbourne, Australia	**Poster #WE 154**
14:40–14:50	**Connectivity-based anatomical parcellation of cortical grey matter** Heidi Johansen-Berg, University of Oxford, Oxford, UK	**Poster #WE 205**
14:50–15:00	**How functional connectivity is influenced by physiology** Silke Dodel, UNAF/SHFJ, Orsay, France	**Poster #WE 160**
15:00–15:10	**Quantitative comparison of function MRI and direct electro-cortical stimulation for functional mapping** Sara E. Larsen, Massachusetts Institute of Technology, Cambridge, MA	**Poster #WE 365**
15:10–15:20	**Fractal complexity of the human cortex is increased in Williams syndrome** Paul M. Thompson, UCLA School of Medicine, Los Angeles, CA	**Poster #WE 389**
15:20–15:30	**Guessing the sex from the shapes of cortical folds** E. Duchesnay, SHFJ/CEA, Orsay, France	**Poster #WE 164**

SCIENTIFIC PROGRAM CONTINUED

15:30–16:30
CLOSING COMMENTS: James Haxby, Past Chair of OHBM
"Ten Years of Human Brain Mapping: How Far Have We Come?"

16:30–17:30
POSTER RECEPTION
Wine and Cheese Party
All Posters (Odd and Even) TH 1–TH 397
Cognition & Attention and Imaging Techniques

SCHEDULE OF POSTER PRESENTATIONS

Language

Monday, June 14	11:00–12:00 (Odd—MO 1–MO 157)
	15:00–16:00 (Even—MO 1–MO 157)
	18:00–19:00 (All—MO 1–MO 157)

Emotion & Motivation

Monday, June 14	11:00–12:00 (Odd—MO 158–MO 287)
	15:00–16:00 (Even—MO 158–MO 287)
	18:00–19:00 (All—MO 158–MO 287)

Development & Aging

Monday, June 14	11:00–12:00 (Odd—MO 288–MO 384)
	15:00–16:00 (Even—MO 288–MO 384)
	18:00–19:00 (All—MO 288–MO 384)

Memory & Learning

Tuesday, June 15	11:00–12:00 (Odd—TU 1–TU 120)
	15:00–16:00 (Even—TU 1–TU 120)
	18:00–19:00 (All—TU 1–TU 120)

Physiology, Metabolism & Neurotransmission

Tuesday, June 15	11:00–12:00 (Odd—TU 121–TU 189)
	15:00–16:00 (Even—TU 121–TU 189)
	18:00–19:00 (All—TU 121–TU 189)

Sensation & Perception

Tuesday, June 15	11:00–12:00 (Odd—TU 190–TU 378)
	15:00–16:00 (Even—TU 190–TU 378)
	18:00–19:00 (All—TU 190–TU 378)

Motor Behavior

Wednesday, June 16	11:00–12:00 (Odd—WE 1–WE 121)
	15:00–16:00 (Even—WE 1–WE 121)
	18:00–19:00 (All—WE 1–WE 121)

Modeling & Analysis

Wednesday, June 16	11:00–12:00 (Odd—WE 122–WE 395)
	15:00–16:00 (Even—WE 122–WE 395)
	18:00–19:00 (All—WE 122–WE 395)

Cognition & Attention

Thursday, June 17	11:00–12:00 (Odd—TH 1–TH 247)
	13:00–14:00 (Even—TH 1–TH 247)
	16:30–17:30 (All—TH 1–TH 247)

Imaging Techniques

Thursday, June 17	11:00–12:00 (Odd—TH 248–TH 397)
	13:00–14:00 (Even—TH 248–TH 397)
	16:30–17:30 (All—TH 248–TH 397)

NOTE: Authors will be present during these times to engage in dialogue and answer questions about the work displayed.