

PROGRAM

MONDAY JULY 29, 2002

9:00 AM – 4:00 PM	Registration
5:00 PM – 7:00 PM	OPENING CEREMONIES Hall A: Montreal Grand Ballroom
7:15 PM – 8:15 PM	Keynote Presentation 1 Hall A: Montreal Grand Ballroom Karl Pribram Georgetown University, Washington DC, USA Forebrain Psychophysiology of Interest
8:15 PM – 9:30 PM	WELCOME RECEPTION Hall H: Promenade

TUESDAY JULY 30, 2002 9:00 AM – 11:00 AM

Hall:C Verdun/Lachine

SYMPOSIUM 1: Vector Code and Brain Waves

Symposium Organisers: Evgeni N. Sokolov (Russia) and Wolfram Boucsein (Germany)

Symposium Chair: John A. Stern (USA)

Vector code, evoked potentials and spike discharges

Evgeni N. Sokolov

Department of Psychophysiology, Moscow State University, Moscow, Russia

The use of cortical evoked potentials to determine the vector-coded space for facial emotional expressions

Andreas Krombholz

University of Wuppertal, Germany

Pacemaker activity as a frequency filter

Anna Sheviakova*, Tatiana Palikhova

Department of Psychophysiology, Moscow Lomonosov State University, Moscow, Russia

Vectorial model for stereovision

Henrikas Vaitkevicius^{1*}, Rytis Stanikunas¹, E. N. Sokolov²

¹Vilnius University, Lithuania, ²Moscow State University, Russia

Towards an integrative neuroscience of orienting and emotion

Leanne M. Williams

The Brain Dynamics Centre and Department of Psychology, University of Sydney, Australia

TUESDAY JULY 30, 2002 9:00 AM – 11:00 AM

Hall D: Mont-Royal/Hampstead

SYMPOSIUM 2: Sleep and alertness: from oscillations to rhythms

Symposium Chair: Diane Boivin (Canada)

Shifts of the sleep schedule and mood impairment

*Boivin, D.B., James, F.O.

Douglas Hospital Research Centre, McGill University, Verdun (Qc), Canada

A comparison of cortical responses during sleep and wakefulness in normal and pathological aging

Dominique Lorrain* and Denis Bélisle

Laboratoire de vigilance, Centre de recherche sur le vieillissement, Institut universitaire de gériatrie de Sherbrooke, Canada

Cognitive performance and sleep: Differences between men and women suffering of chronic insomnia

Bastien, C. H.*, Fortier-Brochu, É., Rioux, I., Belleville, G., LeBlanc, M., & Charles M. Morin, Université Laval, Ste-Foy, Québec, Canada

Quantified analysis of sleep EEG and the pathophysiology of psychiatric disorders: Focus on schizophrenia

Roger Godbout

Centre de Recherche Fernand-Seguin; Hôpital Louis-H.-Lafontaine & Hôpital Rivière-des-Prairies; Département de Psychiatrie, Université de Montréal, Canada

Hall E: Cote-St-Luc

SYMPOSIUM 3: Altered States of Consciousness

Symposium Chair: U. Ott (Germany)

Co-Chair: D. Vaitl (Germany)

Altered States of Consciousness– Introduction

Vaitl, D., Ott, U.* & Sammer, G.

Department of Clinical and Physiological Psychology, University of Giessen, Germany

Baroreflex Responsiveness Correlates with the Trait of Absorption

Ott, U.*, Sammer, G. & Vaitl, D.

Center for Psychobiology and Behavioral Medicine, University of Giessen, Germany

Cortical mechanisms of hypnotic pain control

Wolfgang H. R. Miltner, Ralf Trippe*, Holger Hecht, Thomas Weiss

Biological and Clinical Psychology, Friedrich-Schiller-University of Jena, Germany

EEG Correlates of Ganzfeld-Induced Hallucinatory Experience

Jiri Wackermann*, Peter Pütz, Matthias Braeunig

Institut für Grenzgebiete der Psychologie, Freiburg, Germany

TUESDAY JULY 30, 2002 9:00 AM – 11:00 AM

Hypnosis and pain control: Why can highly hypnotizable individuals control pain?

Helen J. Crawford*, James E. Horton, Dennis McClain-Furmanski

Virginia Polytechnic Institute & State University (HJC DM), University of Virginia's College at Wise (JEH)

Changes in Gamma Band Cortical Functional Connectivity During Hypnosis

J.H. Gruzelier*, G.A. Jamieson, T. Zech, H. Hasegawa, A.P. Burgess, A. Bennion,

Imperial College of Science, Technology and Medicine, London, UK

**ORAL PAPER PRESENTATIONS
ORAL SESSION 1**

Hall F: Lasalle

Session Chair: E. Van Hoof

Correlation of Immunologic Parameters to Psychological variables in Chronic Fatigue Syndrome

E. Van Hoof*, D. Coomans, R. Cluydts, K. De Meirleir

Department of Human Physiology, Vrije Universiteit Brussels, Belgium.

Altered Circadian Rhythms of Heart Rate Variability in Patients With Environmental Intolerance -“Sensitivity to Electromagnetic Fields”

E. Lyskov*, M. Sandström, K. Hansson Mild, V. Klucharev.

Center for Musculo-skeletal Research, Umeå University, Umeå, Sweden.

Breathing Responses to Music and Noises

Patrick Gomez*, Ronny Ott, Brigitta Danuser*

Institute for Hygiene and Applied Physiology, Swiss federal Institute of Technology, Zurich, Switzerland

Influence of Cardiac Afferent Input on Heart-Brain Synchronization and Cognitive Performance

Rollin McCraty

Institute of HeartMath, Boulder Creek, California, USA

Respiratory Responses during Affective Picture Viewing

Patrick Gomez and Brigitta Danuser

Institute for Hygiene and Applied Physiology, Swiss federal Institute of Technology, Zurich, Switzerland

TUESDAY JULY 30, 2002 9:00 AM – 11:00 AM

Heart Rate Variability Biofeedback: A Novel Procedure to Enhance Vagal Recovery from Acute Stress

Robert P. Nolan¹, Markad Kamath², Quincy R. Young³, Clement Pang⁴, John S. Floras⁵

¹University Health Network, Toronto, Ontario; ²McMaster University, Hamilton Ontario;

³St. Paul's Hospital, Vancouver British Columbia; ⁴McMaster University, Hamilton Ontario;

⁵University Health Network, Toronto, Ontario, Canada

Hypoglycemia and Personality Profile in Man

Vahabzadeh, A.*, Godarzi, G. and Mohseni, M.

The Neuroscience Division, Tehran Psychiatric and WHO cc, Iran University of Medical Sciences (IUMS), Tehran-Iran

11:00 AM – 11:30 AM

Coffee Break

11:30 AM – 1:30 PM

Hall C: Verdun/Lachine

SYMPOSIUM 4: Psychophysiology of individual differences in personality: Stimulus processing and response organization

Symposium Chair: Vilfredo De Pascalis (Italy)

Co-chair: R.M. Stelmack (Canada)

Personality, Emotion, and Attention: Electrocortical and Autonomic Correlates

Vilfredo De Pascalis

Department of Psychology, University of Rome "La Sapienza", Rome, Italy

Extraversion and Individual Differences in Response Time, Movement Time and P3 Latency

Robert M. Stelmack

School of Psychology, University of Ottawa, Canada

Extraversion-related differences in motor activation as revealed by lateralized readiness potentials (LRPs)

Thomas H. Rammsayer* and Jutta Stahl

Institute for Psychology, University of Goettingen, Germany

Does motor activity in a reaction time task differentiate extravert from introverts: An event-related potential investigation

Michael E. Houlihan

Department of Psychology, Acadia University, Wolfville, NS, Canada

TUESDAY JULY 30, 2002 11:30 AM – 1:30 AM

Hall D: Mont-Royal/Hampstead

SYMPOSIUM 5: Clinical Psychophysiology of Cognitive and Memory Disorders

Symposium Chair: J. Helen Beuzeron-Mangina (Canada)

Clinical Psychophysiology of Memory Disorders and of Early Alzheimer's Disease: Electrophysiological Markers for Normals and Patients and Cholinergic Medication Effects

J. Helen Beuzeron-Mangina* and Constantine A. Mangina

Montreal Research and Treatment Center, Memory Clinic, Neurophysiology Section, World Health Organization, Douglas Hospital, Faculty of Medicine, McGill University Montreal, Quebec, Canada

“Paradigm-Specific” Differences in Event-Related Brain Potentials, Bilateral Electrodermal Activity and Mangina-Test Performance in Normal and Learning Disabled/ADHD Subjects and Psychophysiological Treatment Effects

C.A. Mangina* and J. H. Beuzeron-Mangina

Montreal Research and Treatment Center, Memory Clinic, Neurophysiology Section, World Health Organization, Douglas Hospital, Faculty of Medicine, McGill University, Montreal, Quebec, Canada

Combined neurophysiological and neuropsychometric evaluation of children with developmental dyslexia

Giuseppe A. Chiarenza*, Daniela Bindelli, Laura Colombo, Igor De Marchi and Giulia Frasson, Paola Magugliani, Paola Martini

Department of Child and Adolescent Neuropsychiatry, Az. Osp. G. Salvini, Rho Hospital, Milan, Italy

Monitoring Problem Readers during Remediation Procedures

John F. Connolly* & Randy Lynn Newman

Cognitive/Clinical Neuroscience Unit, Department of Psychology, Dalhousie University Halifax, NS, Canada

Short term memory, learning deficits and functional connectivity damage in girls treated for Acute Lymphoblastic Leukemia with brain irradiation

Philippe Robaey, Albert Moghrabi, Isabelle Lamothe and Simon Précourt

Research Center of Ste. Justine Hospital, University of Montreal, Montreal, Quebec, Canada

TUESDAY JULY 30, 2002 11:30 AM – 1:30 PM

**ORAL PAPER PRESENTATIONS
ORAL SESSION 2**

Hall E: Cote-St-Luc

Session Chair: David Robinson

The Excitation-Inhibition Theory of Oscillating Brain Potentials

David L. Robinson, Faculty of Medicine
University of Kuwait, Kuwait

The Human Brain as a “complex open physical system”: theoretical and experimental evidences

E. Pettinelli*, L.L. Papeschi and M. Trimarchi
Brain Health Centre – Rome. Italy

Neurochemical Mechanisms of Theta, P2 & P3 Abnormalities in Attention Deficit Hyperactivity Disorder (ADHD)

D. L. Rowe*,^{1,2}, C. J. Rennie,^{1,2,3}, J. J. Wright,⁴, P. A. Robinson,^{1,2} & E. Gordon,¹
¹ Brain Dynamics Centre, Department of Psychological Medicine,
Westmead Hospital & University of Sydney, Westmead, Australia
² School of Physics, University of Sydney, Sydney, Australia
³ Department of Medical Physics, Westmead Hospital, Westmead, Australia
⁴ Liggins Institute, University of Auckland, Auckland, New Zealand

Modelling Global Brain Dynamics in Sleep & Waking

D. L. Rowe*,^{1,2} P. A. Robinson,^{1,2} C. J. Rennie,^{1,2,3} and E. Gordon²
¹ Brain Dynamics Centre, Department of Psychological Medicine,
Westmead Hospital & University of Sydney, Westmead, Australia
² School of Physics, University of Sydney, Sydney, Australia
³ Department of Medical Physics, Westmead Hospital, Westmead, Australia

The Generality of Theta Rhythm Properties

G. Ballester, L.V. Venturini, E.T. Fonoff*, R. Zigaib, M.V. Zanetti, F.I.S. Ewerton
Laboratory of Functional Neurosurgery, University of São Paulo – School of Medicine,
Brazil

A comparison of four EOG correction methods

Rodney J. Croft*^{1,2}, Jody S. Chandler¹, Robert J. Barry¹, Nicholas R. Cooper³ & Adam R. Clarke¹
¹ Brain & Behaviour Research Institute, University of Wollongong, Australia
² Neuropsychopharmacology, Swinburne University of Technology, Australia
³ Cognitive Neuroscience & Behaviour, Imperial College, U.K.

1:30 PM – 3:00 PM

Lunch Break

TUESDAY JULY 30, 2002 3:00 PM – 5:00 PM
--

HALL C: Verdun/Lachine

SYMPOSIUM 6: Electrophysiological Correlates of Normal and Abnormal Development in Infants

Symposium Chair: Franco Lepore (Canada)

Development of the visual system in the first year of life

Maryse Lassonde, Sarah Lippé*, Benoit Hammarenger, Marie-Sylvie Roy, Jean-Paul Guillemot and Franco Lepore

Groupe de Recherche en Neuropsychologie expérimentale, Université de Montréal and Research Center, Sainte-Justine Hospital, Montreal, Qc. Canada

EEG/fMRI studies in normal children and after early-onset cortical pathologies

Maria G. Knyazeva

IBCM, University of Lausanne and Department of Radiology, Centre Hospitalier Universitaire Vaudois (CHUV), Lausanne, Switzerland

Electrophysiological evidence for specialized networks in the infants' brain

G. Dehaene-Lambertz

Centre National de la Recherche Scientifique (CNRS), Paris, France

Neonatal Brain Responses As Predictors of Later Developmental Outcomes

Dennis L. Molfese & Victoria J. Molfese,

University of Louisville, USA

Hall D: Mont-Royal/Hampstead

SYMPOSIUM 7: Event-Related Desynchronization/Synchronization: a New Tool to Evaluate Brain Functions

Symposium Chair: Christa Neuper (Austria)

Co-Chair: Nathan E. Crone (USA)

ERD/ERS basic principles: evidence for resonance-like frequencies in sensorimotor areas

Neuper, C.*, Pfurtscheller, G.

*Department of Medical Informatics, Institute for Biomedical Engineering, University of Technology Graz, Austria

Electrocorticographic studies of ERD/ERS

Nathan E. Crone*, Piotr Franaszczuk, Rafael Irizarry

The Johns Hopkins University, School of Medicine, Baltimore, Maryland, USA

Upper alpha ERD and long-term memory

Wolfgang Klimesch,

Department of Physiological Psychology, University of Salzburg, Salzburg, Austria

TUESDAY JULY 30, 2002 3:00 PM – 5:00 PM
--

Clinical applications of Movement-related desynchronization and synchronization

*Letizia Leocani¹, Giuseppe Magnani², Marco Corsi¹, Alberto Inuggi¹, Giancarlo Comi^{1,2}.

¹Department of Clinical Neurophysiology and ²Department of Neurology, University Vita-Salute San Raffaele, Scientific Institute Hospital San Raffaele, Milan, Italy.

Cortical activation improvement obtained by subthalamic nucleus and pallidal stimulation in Parkinson's disease

Devos David*, Labyt Etienne, Derambure Philippe, Bourriez Jean Louis, Guieu Jean-Daniel, Defebvre Luc et al

* Neurological department, CHRU-LILLE-France

Hall E: Cote-St-Luc

SYMPOSIUM 8: Multistable visual Perception and Brain Electrophysiology in Humans

Symposium Chair: Walter G. Sannita (Italy/USA)

Co-Chair: Canan Basar-Eroglu (Germany)

Toward a Hybrid Model of Reversible Figures: Sensory and Cognitive Contributions

Gerald M. Long, Ph.D.*, and Thomas C. Toppino, Ph.D.

Villanova University, Villanova, Pennsylvania USA

Event related oscillations during multistable visual perception

Canan Basar-Eroglu*, Michael Stadler, Daniel Strüber

University Bremen, Institute of Psychology and Cognition Research, Bremen (FRG)

Stochastic aspects of the phenomenon of perceptual alternation

Massimo Riani^{1*}, Francesco Masulli¹ and Enrico Simonotto²

¹INFM Unit and University of Genoa, Italy; ²University of Edinburgh, UK.

**ORAL PAPER PRESENTATIONS
ORAL SESSION 3**

Hall F: Lasalle

Session Chair: Pierre Flor-Henry

Differences in EEG Organization in Men and Women

Flor-Henry, P*, Lind, J.^{1*}, and Koles, Z.J.²

Alberta Hospital Edmonton*¹, Department of Biomedical Engineering, University of Alberta², Canada

Effects of rTMS upon lateralized emotional picture processing and visual discrimination: a test of the valence hypothesis

Colin Robertson* and Kathrine Roberts

Department of Psychology, University of Lincoln, UK

TUESDAY JULY 30, 2002 3:00 PM – 5:00 PM
--

Time deficit of verbal processing changes the hemispheric asymmetry of the temporal-occipital N1 component: an ERP study

Daniel S. Kislyuk*¹, Tatiana K. Tanguisheva¹, Aleksander A. Aleksandrov¹, Vladimir B. Nechaev^{2,3}

¹Saint-Petersburg State University, Russia; ²Institute of the Human Brain, Russian Academy of Science, Russia; ³ National Institute on Deafness and other communicational disorders, USA

Principal Component Analysis of Narrow Bband EEG Power During Emotional States

Erzsébet Marosi*, Guillermina Yañez, Belén Prieto, Mario Rodríguez, Jorge Bernal
Nacional University of Mexico, FES Iztacala, Laboratory of Neurosciences, Mexico

EEG During Affective Picture Viewing by Young and Old Adults

Richard W. Backs* and Sergio P. da Silva

Department: Psychology, Central Michigan University, Mount Pleasant, MI USA

EEG-Rhythms and Information Processing Disturbances in Schizophrenics

Strelets V.B.

Institute of Higher Nervous Activity and Neurophysiology Russian Academy of Science, Moscow, Russia

Cortical habituation of schizotypal individuals: A differential pattern for Unreality subtypes

Gruzelier, J.*, Vernon, D., Haenschel, C., & Dwivedi. P. Imperial College of Science Technology & Medicine, London, UK

5:00 PM – 5:30 PM Coffee Break

Hall C: Verdun/Lachine

SYMPOSIUM 9: The Use of Different Neuroimaging Modalities to Understand Language and Brain Plasticity

Symposium Chair: Andrew C. Papanicolaou (USA)

MEG Mapping of the Brain Mechanisms of Language

Andrew C. Papanicolaou

Department of Neurosurgery and the Vivian L. Smith Center for Neurologic Research, The University of Texas - Houston Medical School, USA

How language experience shapes the brain: Functional neuroimaging of language in bilingual and monolingual volunteers and patients

Denise Klein

Cognitive Neuroscience Unit, Montreal Neurological Institute, McGill University, Montreal, Canada

TUESDAY JULY 30, 2002 5:30 PM – 7:30 PM
--

Functional MRI of Phonological Skills in Neurofibromatosis, Type I

Rebecca L. Billingsley* Edward F. Jackson, Bartlett D. Moore
Department of Pediatrics, University of Texas Medical School, Anderson Cancer Center,
Houston, TX, USA

Stimulating and imaging the human brain

Tomáš Paus
Montreal Neurological Institute, McGill University, Montreal, Canada

Functional Mapping of Semantic Processes with fMRI

M.P. McAndrews
Toronto Western Hospital & University of Toronto, Canada

Hall D: Mont-Royal/Hampstead

SYMPOSIUM 10: Emerging Technologies in Credibility Assessment

Symposium Chair: Andrew H. Ryan, Jr. (USA)

Ability of the Vericator™ to Detect Smugglers at a Mock Security Checkpoint

T. E. Brown*, S. M. Senter, and A. H. Ryan, Jr.
Department of Defense Polygraph Institute, Ft. Jackson, SC, USA

Evaluating the Reliability and Validity of Vericator as a Voice-Based Measure of Deception

Mitchell S. FT*, Dept. of Psychology, Washington University, Troy Brown, Stuart Senter,
and Andrew Ryan, Jr., Department of Defense Polygraph Institute, Ft. Jackson, SC, USA

Deception and Response Congruity in Visual Two-Stimulus Paradigms Involving Motor Response

Jennifer M. C. Vendemia* ,Robert F. Buzan
University of South Carolina, USA

Regional Brain Correlates of Deception: a functional Magnetic Resonance Imaging Study in Healthy Young Men

FA Kozel*, LJ Revell, JP Lorberbaum, A Shastri, JD Elhai, MS George, et al.
Center for Advanced Imaging Research, Medical University of South Carolina, USA

Thermal Image Analysis for Polygraph Testing

Ioannis Pavlidis*, James Levine
Honeywell Laboratories, Minneapolis, MN, Mayo Clinic, Rochester, MN, USA

Noncontact Sensing of the Physiological Signs of Stress and Emotion Using Laser Doppler Vibrometry

J. W. Rohrbaugh¹, E. J. Sirevaag¹, R. R. Rice², A. H. Ryan³
¹Washington University School of Medicine, ²The Boeing Company, ³Department of
Defense Polygraph Institute

TUESDAY JULY 30, 2002 5:30 PM – 7:30 PM
--

**ORAL PAPER PRESENTATIONS
ORAL SESSION 4**

Hall E: Cote-St-Luc

Session Chair: Nadia Gosselin

Deficits in auditory information processing in symptomatic and asymptomatic concussed athletes

Nadia Gosselin^{1,2*}, Karen Johnston³, Suzanne Leclerc³, Évelyne Touchette^{1,2}, Jacques Montplaisir¹ and Maryse Lassonde²

¹ Centre d'étude du sommeil et des rythmes biologiques, hôpital du Sacré-Cœur de Montréal, Montréal, Canada

² Département de Psychologie, Université de Montréal, Montréal, Canada

³ Department of Neurosurgery, McGill University, Montréal, Canada

Timing and properties of neural mechanisms for mental hand rotation

Blake W. Johnson* and Zoe C. Thayer

Department of Psychology, University of Auckland, Auckland, New Zealand

Event-related potentials as a function of alpha phase at stimulus onset

Jacqueline A. Rushby*, Robert J. Barry and Troy J. Lever

Brain & Behaviour Research Institute and Department of Psychology, University of Wollongong, Wollongong, Australia

Human event-related potentials to visual changes at different stimulus-onset-asynchronies

Piia Astikainen^{1,*}, Timo Ruusuvirta², Jan Wikgren¹ and Tapani Korhonen¹

¹Department of Psychology, University of Jyväskylä, Finland;

²Cognitive Brain Research Unit and Helsinki Brain Research Center, Department of Psychology, University of Helsinki, Finland.

EEG, ERP, Gamma Synchrony and SCL: Towards an integrative approach to ADHD and Schizophrenia

Daniel Hermens^{*125}, Leanne M. Williams¹², Ilario Lazzaro¹³, Simon Clarke¹⁴, Anthony Harris¹³, Evian Gordon¹³⁶ et al.

¹. The Brain Dynamics Centre, Westmead Hospital, Australia; ². Department of Psychology, University of Sydney; ³. Department of Psychological Medicine, Westmead Hospital;

⁴. Adolescent Medicine Unit, Westmead Hospital; ⁵. Research Fellow, the NSW Institute of Psychiatry; ⁶. The Brain Resource Company, Australia

Electrophysiology of attention and cognition in patients with neck dystonia

Zvezdan Pirtosek*, Maja Radobuljac, Klemen Rogelj

Institute of Clinical Neurophysiology, University Clinical Centre, Ljubljana, Slovenia

Event-related Potentials during Imitated Natural Reading

Ying Xie* Zhongle Yang

Cognitive Science Laboratory, Department of Biomedical Engineering, South-central University for Nationalities, Wuhan P.R. China

TUESDAY JULY 30, 2002 7:30 PM – 9:00 PM

**POSTER PRESENTATIONS
SCIENCE FAIR SESSION 1**

Hall G: Fontaine Exhibition Hall

**Hall P: Portage
8:30 PM – 11:00 PM**

I.O.P. Board of Directors Meeting

WEDNESDAY JULY 31, 2002 9:00 AM – 11:00 AM

Hall C: Verdun/Lachine

SYMPOSIUM 11: Inattention and impulsiveness during development: brain mechanisms, environmental and genetic influences

Symposium Chair: Philippe Robaey (Canada)

Co-Chair: Maurits W. van der Molen (The Netherlands)

ERPs as intermediate markers between genetic polymorphisms in the dopamine system and ADHD behavioural phenotypic expressions

Philippe Robaey*, Isabel Fortier, Louise Simard and Ala Birca.

Research Center of Ste. Justine Hospital, University of Montreal, Montreal, Quebec, Canada

Multi-level Analysis of Attention Deficit/Hyperactivity Disorder

Maurits W. van der Molen

Department of Psychology, University of Amsterdam, Amsterdam, The Netherlands

Neuromagnetic Imaging of Human Motor Function

Douglas Cheyne

Neuromagnetic Imaging Laboratory, Hospital for Sick Children Research Institute, Toronto, Ontario, Canada

Inhibitory control: Psychopathology, genetics and physiology

Russell Schachar*, Bob Mehta, Michael Noseworthy, Jing Xiang, Gordon Logan,

The Hospital for Sick Children, University of Toronto, Toronto, Ontario, Canada

Genetic-environmental etiology of information processing precursors of later attentional problems: a study of infant twins

Daniel Pérusse^{1*}, David P. Laplante², Richard E. Tremblay¹, & Michel Boivin³

¹. Research Unit on Children's Psychosocial Maladjustment and St.-Justine Hospital, University of Montreal, Montreal, Quebec, Canada; ². Douglas Hospital and Montreal Children's Hospital, McGill University, Montreal, Quebec, Canada;

³. Research Unit on Children's Psychosocial Maladjustment, Laval University, Quebec City, Canada

Hall D: Mont-Royal/Hampstead

SYMPOSIUM 12: Modern Evoked Potential Analysis Methods

Symposium Chairs: Cristoph M. Michel (Switzerland)

Co-Chair: John Connolly (Canada)

Integrating high-density electrophysiology and functional imaging in humans with intracranial recordings from non-human primates

John J. Foxe* and Charles E. Schroeder

Nathan S. Kline Research Institute, New York / Albert Einstein College of Medicine, New York, USA

WEDNESDAY JULY 31, 2002 9:00 AM – 11:00 AM

Spatiotemporal analysis of event related potential data reveals aspects of cognitive processing

Nancy J. Lobaugh^{1*}, Roxane J. Itier² & Margot J. Taylor²

¹Imaging Research & Cognitive Neurology, Sunnybrook & Women's College Health Sciences Centre, University of Toronto; ²Centre de Recherche Cerveau et Cognition, Université Paul Sabatier, Toulouse, FRANCE

Spatio-temporal analysis of evoked potentials

Christoph M. Michel

Functional Brain Mapping Laboratory, Neurology Clinic, University Hospital, Geneva, Switzerland

Electrical Neuropsychology – Methods of Linking ERP and Neuropsychological Test Performance

John F. Connolly, Yannick Marchand, Celeste Lefebvre, & Ryan D'Arcy

Cognitive/Clinical Neuroscience Unit, Department of Psychology, Dalhousie University Halifax, NS, Canada, *MR Technology Group, Institute for Biodiagnostics, National Research Council of Canada, Winnipeg, MB, Canada

Hall E: Cote-St-Luc

SYMPOSIUM 13: Psychopharmacological Influences on Sensory Gating

Symposium Chair: Helen J. Crawford (USA)

Effects of tobacco smoking and abstaining on sensory gating and gamma activity

Helen J. Crawford*, Dennis McClain-Furmanski, Neal Castagnoli, Kay Castagnoli
Virginia Polytechnic Institute and State University, Blacksburg, Virginia USA.

Effects of cocaine on midlatency auditory evoked responses and sensory-gating.

Nashaat N. Boutros

Yale University School of Medicine, USA

Reduced P50 Sensory Gating in Heavy Marijuana Users

Gloria Patrick, Frederick Struve

LSU School of Medicine, Shreveport, Louisiana, USA

Donepezil Does Not Improve P50 Sensory Gating in Patients With Alzheimer's Disease

Frederick Struve, Roy Reeves, Gloria Patrick

LSU School of Medicine, Shreveport, LA, USA (FS & GP); VA Medical Center, Jackson, MS, USA

WEDNESDAY JULY 31, 2002 9:00 AM – 11:00 AM

**ORAL PAPER PRESENTATIONS
ORAL SESSION 5**

Hall F: Lasalle

Session Chair: Stefanos Kaprinis

**Changes in the non-verbal elements of speech in Alzheimer's disease patients:
Preliminary findings**

Kaprinis St, Fountoulakis KN, Kaprinis G.

Laboratory of Psychophysiology, 3rd Department of Psychiatry, Aristotle University of Thessaloniki Greece

Impact of a Workplace Psychophysiological Intervention on Blood Pressure and Emotional Health in Hypertensive Employees

Rollin McCraty

Institute of HeartMath, Boulder Creek, California, USA

Effects of an Emotional Restructuring Program on Psychological Functioning and Functional Capacity in Patients with Congestive Heart Failure

Rollin McCraty

Institute of HeartMath, Boulder Creek, California, USA

Hyperbaric Oxygen Therapy (HBOT) for chronic systemic infections in Chronic Fatigue Syndrome

E. Van Hoof*, D. Coomans, P. De Becker, K., De Meirleir, R. Cluydts

Department of Human Physiology, Vrije Universiteit Brussels, Belgium

Psychophysiological Evaluation Of Palliative Care

K. Nagata*, K. Morishita, T. Hasegawa, K. Okano, C. Ohtsuki

Health Administration Center and Psychosomatic Medicine, Hamamatsu University, School of Medicine, Japan

Psychophysiology Of The Personality Profile And Thalamocortical Perception

Asghar-nejad,A, Karbalaeei,D.and Vahabzadeh,A.

The Neuroscience Division, Tehran Psychiatric Institute and WHO cc,Iran

University of Medical Sciences (IUMS), Tehran-Iran

11:00 AM – 11:30 AM

Coffee Break

WEDNESDAY JULY 31, 2002 11:30 AM – 1:30 PM

Hall C: Verdun/Lachine

SYMPOSIUM 14: Neurophysiological correlates of cognitive impairment

Symposium Chair: Giancarlo Comi, Co-Chair (Italy)

Co-Chair: Giuseppe Chiarenza (Italy)

Coherence analysis in Alzheimer's disease

*Giancarlo Comi^{1,2}, Letizia Leocani², Marco Corsi².

Dept. of Neurology¹ and Clinical Neurophysiology², University Vita-Salute S. Raffaele, Milan, Italy

Evaluating language function in brain injured populations

John F. Connolly*, Yannick Marchand

Cognitive/Clinical Neuroscience Unit, Department of Psychology, Dalhousie University
Halifax, NS, Canada

Event-related Potentials in Mild Cognitive Impairment

A Starr and EJ Golob

Institute for Brain Aging and Dementia, and Department of Neurology, University of California, Irvine.

EEG in executive dysfunction

*Letizia Leocani¹, Giancarlo Comi^{1,2}.

Clinical Neurophysiology¹ and Neurology², Scientific Institute Hospital San Raffaele, Milan, ITALY.

Hall D: Mont-Royal/Hampstead

SYMPOSIUM 15: Oscillatory brain dynamics in information processing

Symposium Chair: S. Karakaş (Turkey)

From time-domain waveforms to oscillatory dynamics: An evolving approach to brain's electrical activity (General Summary)

S. Karakaş

Cognitive Psychophysiology Research Unit, Hacettepe University Ankara, Turkey

Early 'sensory' gamma represents the integration of bottom-up and top-down processing

*S. Karakaş, H. Kafadar, Ö.U. Erzençin

Cognitive Psychophysiology Research Unit, Hacettepe University Ankara, Turkey

Phase locked theta and alpha oscillations reflect access to different memory systems

W. Klimesch

Department of Physiological Psychology, University of Salzburg, Salzburg, Austria

WEDNESDAY JULY 31, 2002 11:30 AM – 1:30 PM

Brain oscillations in working memory*C. Basar-Eroglu¹, A. Brand², H. Hildebrandt²¹University of Bremen Institute of Psychology and Cognition Research; ²General Hospital Bremen Ost Center for Psychiathrie and Clinic for Neurology, Bremen, Germany**Audio-visual sensory integration is manifested in evoked gamma- and theta-responses of the human brain**

*O.W. Sakowitz, R. Quian Quiroga, M. Schürmann, E. Başar

Institute of Physiology, Medical University Lübeck, Lübeck, Germany

Supersynergy and superbinding in integrative brain functions*Erol Başar^{1,3}, Murat Özgören^{1,3} and Sirel Karakaş^{2,3}¹ Department of Biophysics, Dokuz Eylül University, Medical School, Balçova Izmir, Turkey; ² Hacettepe University, Department of Experimental Psychology, Ankara; ³ Brain Dynamics Multidisciplinary Research Network of TÜBİTAK, Ankara, Turkey**Hall E: Cote-St-Luc****SYMPOSIUM 16: Positron Emission Tomography (PET) in Cognition, Movement, Pain and Personality****Symposium Chair: Svyatoslav Medvedev (Russia)****PET in study of cognition**

S.V. Medvedev

Institute of the Human Brain, St.Petersburg, Russia.

PET in studies of movement

Radovanovic S

Center for Musculoskeletal Research, Umea University, National Institute for Working Life, Umea, Sweden

PET in studies of brain processing of phasic and tonic pain

Thunberg J.

Center for Musculoskeletal Research, Umeå University, National, Institute for Working Life, Umeå, Sweden

Hall F: Lasalle**SYMPOSIUM 17 : PSYCHOPHYSIOLOGY OF AUTISM****Symposium Chair : Nicole Bruneau (France)****Sleep and EEG in Autistic Spectrum Disorders**

Roger Godbout

Centre de Recherche Fernand-Seguin; Hôpital Louis-H.-Lafontaine & Hôpital Rivière-des-Prairies; Département de psychiatrie, Université de Montréal, Canada

WEDNESDAY JULY 31, 2002 11:30 AM – 1:30 PM

Visual gating, -attention and -context in autism: A cognitive ERP study

Stauder J.E.A.^{1*}, Mottron L.²

¹Faculty of Psychology, Universiteit Maastricht, Maastricht, The Netherlands

²Clinique Spécialisée de l'Autisme, Hôpital Rivière-des-Prairies, Montréal, Canada

Auditory sensory processing in autism and Asperger's syndrome as reflected by event-related potentials

T. Lepistö* and T. Kujala

Cognitive Brain Research Unit, Department of Psychology, University of Helsinki, Finland

Brain processing of auditory stimulus deviance in children with autism: a topographic event-related potential study

Bruneau N *, Gomot M, Giard M-H §, Sylvie Roux, Catherine Barthélémy

INSERM U 316 – Neurophysiology in Child Psychiatry – University Hospital -37044 Tours Cedex – France; § INSERM U280 – Brain signals and Processes Laboratory – 69003 Lyon – France

France

Anticipatory postural adjustments during a bimanual load-lifting task:

Electrophysiological study in autism using event-related desynchronisation

Joëlle Martineau, Christina Schmitz¹, Christine Assaiante¹, Romuald Blanc and Catherine Barthélémy

INSERM U 316 – Neurophysiology in Child Psychiatry – Bretonneau University

Hospital - 37044 Tours Cedex – France; ¹CNRS UPR 9011 – 13402 Marseille Cedex

20 – France

1:30 PM – 3:00 PM

Lunch Break

3:00 PM – 4:00 PM

Keynote Presentation 2 Hall B: Westmount/Outremont

William G. Iacono

Minnesota Center for Twin and Family Research, University of Minnesota, USA

Psychophysiology, Behavior Genetics, and the Development of Psychopathology

4:00 PM – 5:00 PM

Didactic Presentation 1 Hall B: Westmount/Outremont

Risto Näätänen

Cognitive Brain Research Unit, University of Helsinki, Helsinki, Finland

Mismatch Negativity (MMN): Clinical Applications

5:00 PM – 5:30 PM

Coffee Break

WEDNESDAY JULY 31, 2002 5:30 PM – 7:00 PM

**POSTER PRESENTATIONS
SCIENCE FAIR SESSION 2**

Hall G: Fontaine Exhibition Hall

Hall A: Montreal Grand Ballroom

8:30 PM – 11:00 PM

20TH Anniversary of I.O.P. WORLD GALA CONCERT

THURSDAY AUGUST 1, 2002 9:00 AM – 11:00 AM

Hall C: Verdun/Lachine

SYMPOSIUM 18: Allostatic Load, Chronic Stress and Physiological Responsivity
Symposium Chair: Kathleen A Lawler (USA)

An Examination of the Allostatic Load Model of Stress and Health

K. A. Lawler* and Z. C. Wilcox

Department of Psychology, University of Tennessee, Knoxville, TN, USA

Interpersonal Stress Produces Homogeneous Adrenocortical and Sympathetic Responses in Hypertension-Prone Men and Women

M. al'Absi

Department of Behavioral Science, University of Minnesota School of Medicine, Duluth, MN, USA

Cardiovascular Risk and Stress in Adolescents

P. G. Saab*, J. R. McCalla, S. Spitzer, D. Falk, M. Davalos, K. Kline, et al.,

Department of Psychology, University of Miami, Coral Gables, FL, USA

Social Competence, Interpersonal Stress and Ambulatory Blood Pressure in Black and White Youth

C. K. Ewart

Center for Health and Behavior, Syracuse University, Syracuse, NY, USA.

Physiologic Markers of Chronic Stress in Premenopausal, Middle-aged Women

W. R. Lovallo^{1*}, L. H. Powell², K. A. Matthews³, P. Meyer, Rush⁴, A. R. Midgley⁵, A. Baum⁶

¹VA Medical Center, Oklahoma City, USA, ²Rush-Presbyterian-St. Luke's Medical Center, Chicago, USA, ³University of Pittsburgh, Pittsburgh, USA, ⁴Presbyterian-St. Luke's Medical Center, Chicago, USA, ⁵University of Michigan, Ann Arbor, USA and, ⁶University of Pittsburgh, Pittsburgh, USA,

Hall D: Mont-Royal/Hampstead

SYMPOSIUM 19: Pupillometry and Cognition in Schizophrenia

Symposium Chair: Eric Granholm (USA)

Pupillary Response Measures of Cognitive Overload and Attentional Filtering Deficits in Negative Symptom Patients with Schizophrenia

Eric Granholm*, Joel Ellwanger, Shaunna Morris, David Braff, Steven Verney & Dimitri Perivoliotis

VA San Diego Healthcare System and University of California, San Diego, US

Pupillary Responses Suggest Over-Allocation of Processing Resources to Masks on the Backward Masking Task in Older Patients with Schizophrenia

Steven P. Verney*, Eric Granholm

VA San Diego Healthcare System and University of California, San Diego, USA

THURSDAY AUGUST 1, 2002 9:00 AM – 11:00 AM

Visual Task-Evoked Pupil Dilation in Schizophrenia: Complex versus Simple Tasks and Relationship to Task Performance

Arpi Minassian*, Eric Granholm, & William Perry
Department of Psychiatry, University of California, San Diego, USA

Pupillary Dilation, Cognition, and Psychiatric Disorder: Insights to Brain Function

Stuart R. Steinhauer*, Greg J. Siegle, Ruth Condray, Cameron C. Carter, Michael E. Thase
VA Pittsburgh Healthcare System & University of Pittsburgh School of Medicine, USA

Hall E: Cote-St-Luc

SYMPOSIUM 20: Where and when in the developing brain: Neurophysiology of cognition in infants and children

Symposium Chair: Margot J. Taylor (France)

Early maturation of visual attentional processes in childhood

Margot J. Taylor
CerCo-CNRS UMR 5549, Université Paul Sabatier, Toulouse, France

Development of cortical representations of faces and objects during infancy

Michelle de Haan
Developmental Cognitive Neuroscience Unit, Institute of Child Health, University College London, London, England

Effects of brain development on auditory processing over the first year of life

Laurel J. Trainor* and Louis A. Schmidt
McMaster University, Hamilton, Ontario, Canada

Auditory ERP and MEG recordings in children

Elizabeth W. Pang
Division of Neurology, Hospital for Sick Children, Toronto, Canada

EEGq study of visual perception in children: human, animal and virtual movements activate different cortical areas.

Joëlle Martineau
INSERM U 316, Neurophysiology in Child Psychiatry, Bretonneau Hospital, 37044 Tours, France

THURSDAY AUGUST 1, 2002 9:00 AM – 11:00 AM

**ORAL PAPER PRESENTATIONS
ORAL SESSION 6**

Hall F: Lasalle

Session Chair: Richard B. Silberstein

Individual Differences in Steady State Visually Evoked Potential Synchronization During Mental Rotation

R.B. Silberstein*, F. M. Danieli and P. L. Nunez

Brain Sciences Institute Swinburne University of Technology, Melbourne Australia. Brain Physics Group, Tulane University, New Orleans, USA.

A late (> 1.5s) phase-locked gamma band response to choice inducing stimuli

Sven Braeutigam

Department of Physics & Astronomy, The Open University, Milton Keynes, UK.

Probability in auditory passive P300 habituation in young and old

Christel van Hintum^{1, 2*}, Judith Dunai² and Alex Sergejew^{2, 3}

National Ageing Research Institute¹ and Mental Health Research Institute³, University of Melbourne², Australia

The Quasi-Stationary Structure of the Human EEG Alpha-Activity in the Rest and During Different Cognitive Loads

Kaplan A.Y.*, Borisov S.V.

Moscow State University. Moscow, Russia.

Different Spatio-temporal dynamics for Amygdala and Hippocampus according to SCR in fMRI response to fear

Brown, K.J.*; Williams, L.M., Das, P., Liddell, B.J., Oliveri, G., Peduto, A, et al.

The Brain Dynamics Centre, Sydney, Australia.

The role of prefrontal cortex in modulating amygdala activation during emotion: an fMRI study

E. Pettinelli^{1*}, C. Persgani¹, M. Torlini¹, P.Russo, L.L. Papeschi¹ and M. Trimarchi¹ et al

¹Brain Health Centre - Rome. Italy; ²ITAB – Università di Chieti – Chieti, Italy

Differences in bandpowerchanges according to the performance in an intelligence test

M. Doppelmayr*, W. Klimesch, P. Sauseng & K. Hödlmoser

Department of Physiological Psychology, University of Salzburg, Austria

Thalamocortical Process, Stressful Life Events And Addiction

Vahabzadeh,A., Hajipor,H., and Asghar -Nejad, A.

The Neuroscience Division, Tehran Psychiatric Institute and WHO cc, Iran University of Medical Sciences (IUMS) ,Tehran -Iran

11:00 AM – 11:30 AM

Coffee Break

THURSDAY AUGUST 1, 2002 11:30 AM – 1:30 PM

Hall C: Verdun/Lachine

MEET THE CLINICAL EXPERTS SESSION
Moderator: J. Helen Beuzeron-Mangina, (Canada)

This special session is intended for clinical researchers, clinicians, medical specialty residents and graduate students. It is also part of the thirty-five (35) hours of Credits that will be provided to those who wish to obtain and are eligible to receive credits for Medical Licensing Boards and other Professional Bodies by the International Organization of Psychophysiology (IOP) World Congress. In this context, this session is dedicated to questions and answers pertaining to specific clinical issues and subjects. Questions will be asked directly to clinical experts by the audience.

The following Clinical Experts will receive questions on specific clinical issues pertaining to their specialty (in alphabetical order):

- ◆ **J. Helen Beuzeron-Mangina (Memory Disorders, Alzheimer's Disease and other Dementias)**
- ◆ **Diane Boivin (Circadian Rhythms and Sleep Disorders)**
- ◆ **Giancarlo Comi (Links between Neurological and Psychiatric Diseases)**
- ◆ **John Connolly (Aphasia and Communication Disorders)**
- ◆ **Hani Iskandar (Psychiatric Emergencies and Related Pharmacological Interventions)**
- ◆ **C.A. Mangina (Learning Disabilities and ADHD)**
- ◆ **Thomas Mulholland (Links between Basic Research and Clinical Applications)**
- ◆ **Karl Pribram (Links between Basic and Clinical Research)**
- ◆ **Philippe Robaey (Links between Childhood Pathologies, Leukemia and ADHD)**

Hall D: Mont-Royal/Hampstead

SYMPOSIUM 21: EEG Coherence Studies on Cognition and Working Memory.
Symposium Chair: Daniel S. Ruchkin (USA)

Coherence Studies on Cognition and Working Memory

D.S. Ruchkin

Department of Physiology, School of Medicine, University of Maryland, Baltimore, MD, USA

Neural Synchronization during Semantic Working Memory

Henk J. Haarmann^{1*}, Katherine Cameron², & Daniel S. Ruchkin³,

¹ Department of Hearing and Speech Sciences, University of Maryland, College Park, MD

² Department of Psychology, Washington College, Chestertown, MD, ³ Department of Physiology, School of Medicine, University of Maryland, Baltimore, MD, USA

THURSDAY AUGUST 1, 2002 11:30 AM – 1:30 PM

Theta and beta synchronization reflect different processes during sentence comprehension

Weiss, S.^{1*}, Mueller, H.M.², King, J.W.³, Kutas, M.⁴, Schack, B.⁵, Rappelsberger, P.¹

¹ Brain Research Institute, Cognitive Neuroscience Group, Vienna, Austria. ²Experimental Neurolinguistics Group, Faculty of Linguistics, University of Bielefeld, Germany.

³Department of Psychology, University of Missouri-Columbia, Columbia, USA.

⁴Department of Cognitive Science, University of California at San Diego, USA. ⁵Institute of Medical Statistics, Computer Science and Documentation, University of Jena, Germany

Temporal properties of instantaneous EEG coherence characterize human mathematical thinking

B. Schack^{1*}, G. Seidel², W. Krause², F. Heinrich³

¹Institute of Medical Statistics, Computer Science and Documentation, ²Institute of General Psychology, ³Department of Mathematics and Computer Science University of Jena, Germany

Examining the spatial phase synchrony of high frequency oscillations as a function of time in EEG

Albert R. Haig* and Evian Gordon

The Brain Dynamics Centre, Westmead Hospital, Sydney, Australia; Department of Psychological Medicine, University of Sydney, Australia

Brainstorms: Independent EEG processes transiently synchronize in response to cognitive challenges

Scott Makeig

Swartz Center for Neural Computation, Institute for Neural Computation, University of California San Diego, USA

Hall E: Cote-St-Luc

SYMPOSIUM 22: Functional significance of frontal theta: new developments.

Symposium Chair: Gina Rippon (United Kingdom)

Localisation of frontal theta: Synthetic Aperture Magnetometry (SAM) techniques applied to Magnetoencephalographic data

Gina Rippon*¹, Adrian Burgess², Krish Singh¹, Gareth Barnes¹

¹The Wellcome Trust Laboratory for MEG Studies, Neurosciences Research Institute, Aston University, Aston Triangle, Birmingham, B4 7ET, UK, ²Division of Neuroscience & Psychological Medicine, Imperial College Faculty of Medicine, London, UK

The functional meaning of theta oscillations for memory

W. Klimesch*¹, M. Doppelmayr¹, D. Röhm¹ and B. Schack²

¹Department of Physiological Psychology, University of Salzburg, Austria ²Institute of Medical Statistics, Computer Sciences and Documentation, Medical Faculty of the Friedrich Schiller University Jena, Jena, Germany

Grandmother percept is manifested by selectively distributed multiple oscillations in the whole brain

Erol Basar*^{1,2}, Murat Ozgoren² and Canan Basar-Eroglu³

¹Department of Biophysics, Medical School, Dokuz Eylül University, Balçova, Izmir, Turkey

²Brain Dynamics Multidisciplinary Research Network, TÜBITAK Ankara,

³Institute of Psychology and Cognition Research, University Bremen, Germany

THURSDAY AUGUST 1, 2002 11:30 AM – 1:30 PM

Frontal midline theta in patients with bipolar disorder during a recognition memory task in sad and neutral induced mood states

Adrian Burgess*, Amy Piasio, Steven Munns, David Barbenel and Christopher Bench
Division of Neuroscience & Psychological Medicine, Imperial College Faculty of Medicine, London, UK

Replicable evidence of the efficacy of neurofeedback theta training for music performance in conservatoire students

John H Gruzelier* and Tobias Enger
Department of Cognitive Neuroscience and Behaviour
Faculty of Medicine, Imperial College of Science, Technology and Medicine, London, UK.

Hall F: Lasalle

SYMPOSIUM 23: Psychophysiology of Attention Deficit Disorders I
Symposium Chair: Robert J. Barry (Australia)

EEG activity in Attention Deficit/Hyperactivity Disorder

Robert J. Barry*, Adam R. Clarke, and Stuart Johnstone
Brain & Behaviour Research Institute and Department of Psychology, University of Wollongong, Wollongong 2522, Australia

Executive Functioning in AD/HD and Associated Disorders

Joseph Sergeant
Clinical Neuropsychology, Vrije Universiteit, Amsterdam, The Netherlands

EEG changes with stimulant medication in children with AD/HD

Robert J. Barry*^a, Adam R. Clarke^a, Rory McCarthy^b, Mark Selikowitz^b, Dominique Bond^a, Christopher R. Brown^a and Rodney J. Croft^c. ^aDepartment of Psychology and Brain & Behaviour Research Institute, University of Wollongong, Wollongong 2522, Australia, ^bPrivate Pediatric practice, Sydney, Australia, ^cDepartment of Neuropsychopharmacology, Swinburne University of Technology, Melbourne, Australia

EEG-defined subtypes of AD/HD

Adam R. Clarke*^a, Robert J. Barry^a, Rory McCarthy^b, and Mark Selikowitz^b
^aDepartment of Psychology, and Brain & Behaviour Research Institute, University of Wollongong, Wollongong 2522, Australia, ^bPrivate Pediatric practice, Sydney, Australia.

EEG effects of Dexamphetamine in Adults with Attention Deficit Disorder

Susan M. Bresnahan and Robert J. Barry*
Brain & Behaviour Research Institute, and Department of Psychology, University of Wollongong, Wollongong, Australia

1:30 PM – 3:00 PM

Lunch Break

THURSDAY AUGUST 1, 2002

3:00 PM – 4:00 PM **Keynote Presentation 3 Hall B: Wesmount/Outremont**
Robert Galambos (USA)
University of California, School of Medicine, San Diego,
California, USA
Four Favorite Experiments And Why I Like Them

4:00 PM – 5:00 PM **Didactic Presentation 2 Hall B: Wesmount/Outremont**
John Connolly (Canada)
Dalhousie University, Halifax, Nova Scotia, Canada
**Multimodal Imaging in the Study of Normal and
Pathological Brain Function**

5:00 PM – 5:30 PM **Coffee Break**

5:30 PM – 6:30 PM **Didactic Presentation 3 Hall B: Wesmount/Outremont**
Roberto Zappoli (Italy)
Department of Neurological and Psychiatric Sciences,
University of Florence, Italy
**Permanent or Transitory Effects on Neurocognitive
Components of the CNV Complex Induced by Brain
Lesions and Ablations in Humans**

6:30 PM – 8:00 PM

**POSTER PRESENTATIONS
SCIENCE FAIR SESSION 3
Hall G: Fontaine Exhibition Hall**

Hall P: Portage

8:30 PM – 11:00 PM Joint Meeting of I.O.P. Board of Directors, Board of Governors
and Editorial Board

FRIDAY AUGUST 2, 2002 9:00 AM – 11:00 AM

Hall C: Verdun/Lachine

**SYMPOSIUM 24: Psychophysiological Markers of Risk of Schizophrenia Liability.
Symposium Chair: Gillian A. O'Driscoll (Canada)**

Eye-tracking deficits index frontal-striatal dysfunction in relatives of schizophrenic patients

G.A. O'Driscoll*, A-L.V. Holahan, M. Faubert

Departments of Psychology and Psychiatry and Douglas Hospital Research Center, McGill University Montreal, Quebec, Canada

Using animal models to map electrophysiological trait-markers for schizophrenia

Joober R* and Boksa P.

Douglas Hospital Research Centre, Department of Psychiatry, McGill University, Montreal, Quebec, Canada

Modulation of Behavioral Markers of Risk For Schizophrenia by Nicotine

Lana Dépatie*, Gillian A. O'Driscoll, Anne-Lise V. Holahan, Joseph Thavundayil, N Ng Ying Kin and Samarthji Lal

Departments of Psychology and Psychiatry and Douglas Hospital Research Centre, McGill University, Montreal, Canada

Psychometric Schizotypy and Motor Performance

Mark F. Lenzenweger*¹, Brendan A. Maher²

Department of Psychology, ¹ State University of New York at Binghamton and ²Harvard University, Boston, USA

Skeletomotor Deficits in Schizotypal Individuals

A-L.V. Holahan*, G.A. O'Driscoll, T. Savion-Lemieux, D. Shiller, B.J. Smith, D.J. Ostry
Department of Psychology, McGill University, Montreal, Quebec, Canada

Hall D: Mont-Royal/Hampstead

SYMPOSIUM 25: PSYCHOPHYSIOLOGY: A WINDOW TO THE MIND AND BRAIN

Symposium Chair: Daniel Tranel (USA)

Psychophysiological approaches to the study of decision making

Antoine Bechara*, Daniel Tranel, and Antonio R. Damasio

Department of Neurology, University of Iowa College of Medicine, USA

Discrimination of Patterns of Bodily Response Associated with Distinct Emotional States

Nasir Naqvi¹*, Pierre Rainville², and Antoine Bechara³

Department of ^{1,3} Neurology, University of Iowa College of Medicine, USA; Département de ²Stomatologie, Université de Montréal, Canada

FRIDAY AUGUST 2, 2002 9:00 AM – 11:00 AM

The central and peripheral correlates of the experience and the mental evocation of pain

Pierre Rainville*

Faculté de Médecine Dentaire, Université de Montréal, Canada

Psychophysiology and fMRI integrated in a time-aware processing environment

T.J. Grabowski*^{1,2}, C. Smyser¹, R.J. Frank³, B. Eaton¹, L. Bolinger²

Departments of ¹Neur-ology and ²Radiology, University of Iowa College of Medicine,

³Lawrence Livermore National Laboratory, Iowa, USA

Hall E: Cote-St-Luc

SYMPOSIUM 26: Psychophysiology of Associative Learning: Basic Aspects and Clinical Relevance

Symposium Chair: Peter Kirsch (Germany)

Co-Chair: Dieter Vaitl (Germany)

Activation of the brain reward system during non aversive differential conditioning: fMRI data from normal controls and subjects with schizotypal characteristics

Peter Kirsch*, Jessica Burkart, Sabine Herwig, & Dieter Vaitl

Bender Institute of Neuroimaging, University of Giessen, Germany

Tracking of aversive associative learning in the human brain: A neuropsychological approach

Martin Peper^{1*}, Martin Herpers¹, & Josef Zentner²

¹Department of Psychology, and ²Department of Neurosurgery, University of Freiburg, Germany

Coherence of Gamma-Band EEG Activity as a Basis for Associative Learning

Wolfgang H. R. Miltner, Christoph Braun, Matthias Arnold, Herbert Witte, & Edward Taub

Department Biological and Clinical Psychology, Friedrich-Schiller-University of Jena, Germany (Presented by Ralf Trippe*, Friedrich-Schiller-University of Jena, Germany)

The Role of Disgust Sensitivity and Disgust Learning in Blood Phobia

Anne Schienle*, Axel Schäfer, Rudolf Stark, & Dieter Vaitl

Clinical and Physiological Psychology, University of Giessen, Germany

FRIDAY AUGUST 2, 2002 9:00 AM – 11:00 AM

**ORAL PAPER PRESENTATIONS
ORAL SESSIONS 7**

Hall F: Lasalle

Session Chair: Valeria Csepe

Event-related potentials in a digit and letter comparison task

Dénes Szűcs¹, Valéria Csépe¹, Attila Márkus²

¹ Research Institute for Psychology, Hungarian Academy of Sciences, Budapest

²MÁV Hospital, Budapest, Hungary

Is the “mini-neglect” general? N1 to words, numbers and number-words

Valéria Csépe and Dénes Szűcs

Research Institute for Psychology, Hungarian Academy of Sciences, Budapest, Hungary

Sources Of EEG Activity In Learning Disabled Children

Thalía Fernández, Thalía Harmony*, Antonio Fernández-Bouzas, Juan Silva, Wendy Herrera, Efraín Santiago-Rodríguez and Liliana Sánchez.

Center of Neurobiology, National Autonomous University of Mexico, Campus UNAM-UAQ Juriquilla, Querétaro 76230, México

Frontal Lobe And Hippocampal Volume Relationships With Memory Tasks

Antonio Fernández-Bouzas*, Liliana Sánchez, Thalía Harmony, Thalía Fernández, Juan Silva and Manuel Martínez-López

Center of Neurobiology, National Autonomous University of Mexico, Campus UNAM-UAQ Juriquilla, Querétaro 76230, México and MRI Unit of Medica Sur Clinic, Mexico City.

Spectrotemporal window of integration of auditory information in the human brain

Naoko Shinozaki*, Hirooki Yabe, Yasuharu Sato, Tomiharu Hiruma, Takeyuki Sutoh, Takashi Matsuoka et al.

Department of Neuropsychiatry, Hirosaki University School of Medicine, Japan

Independent Coding of Motor Intention for Next Stimuli and Stimulus: Response Memory Trace of Previous Stimuli Indexed by LRP

Carlos M. Gómez*, Manuel Vazquez, E. Vaquero and M.J. Cardoso

Lab. Psicobiología. Dept. de Psicología Experimental, Univ. De Sevilla. Spain.

11:00 AM – 11:30 AM

Coffee Break

FRIDAY AUGUST 2, 2002 11:30 AM – 1:30 PM

Hall C: Verdun/Lachine

SYMPOSIUM 27: Seeking the Neural Bases of Emotion and Cognition: in vivo functional brain studies in humans

Symposium Chair: Cheryl L. Grady (Canada)

Co-Chair: Mario Guazzelli (Italy)

Brain Mechanisms Mediating Emotion and Self Reference

Cheryl L. Grady*, Michelle Keightley, Phillipe Fossati, Helen Mayberg, Gordon Winocur
Rotman Research Institute, Toronto, Ontario, Canada

Seeing with one's Hands: Supramodal Cortical Organization of Perception in the Human Brain revealed by fMRI

Pietrini P*, Furey ML, Ricciardi E, Gobbini MI, Guazzelli M, Haxby JV
NIMH, NIH, Bethesda MD (USA) and University of Pisa, Pisa (Italy)

Human neural systems for face perception and social communication

James V. Haxby*, M. Ida Gobbini
Laboratory of Brain and Cognition, NIMH, Bethesda, MD USA

Temporal Features of Selective Visual Attention

M.L. Furey
National Institute Mental Health/National Institute of Health, Bethesda MD USA; University of Pisa, Italy

Hall D: Mont-Royal/Hampstead

SYMPOSIUM 28: New advancements in nonlinear EEG analysis

Symposium Chair: Raffaele Ferri (Italy)

Co-Chair: Mark Molnar (Hungary)

Nonlinear Analysis of EEG During Sleep

Raffaele Ferri^{1*}, C.J. Stam²

¹Sleep Research Center, Department of Neurology, Oasi Institute for Research on Mental Retardation and Brain Aging (IRCCS), Troina, Italy; ²Department of Clinical Neurophysiology and MEG centre, VU University Medical Centre, Amsterdam, The Netherlands

EEG Complexity as Affected by Stimuli of Different Modality

M. Molnar^{1*}, I. Kondakor², J. Weisz³, E. Toth⁴

¹Institute for Psychology, Hungarian Academy of Sciences, Budapest; ²Department of Neurology, University Medical School, Pécs; ³Institute of Psychology, Eotvos University, Budapest; ⁴Department of Behavioral Sciences, University Medical School, Budapest, Hungary

FRIDAY AUGUST 2, 2002 11:30 AM – 1:30 PM

Nonlinear association analysis reveals cortical focus driving widespread corticothalamic networks during absence seizures

H.K.M. Meeren^{1*}, J.P.M. Pijn², E.L.J.M. Van Luijtelaar³, A.M.L. Coenen³, F.H. Lopes da Silva^{2,4}

¹MEG Centre, Vrije Universiteit Medical Centre, Amsterdam, The Netherlands

²Dutch Epilepsy Clinics Foundation, Heemstede, The Netherlands; ³Dep. of Biological Psychology, University of Nijmegen, The Netherlands; ⁴Section Neurobiology, Swammerdam Institute of Life Sciences, University of Amsterdam, The Netherlands

Synchronization likelihood as a tool to investigate interdependencies in multichannel EEG and MEG data

C.J. Stam*, B.W. van Dijk

Department of Clinical Neurophysiology and MEG centre, VU University Medical Centre, Amsterdam, The Netherlands

Investigation of Large-Scale Brain Dynamics Using Nonlinear Analysis of Multichannel Human EEG

M. Breakspear^{1,2*}, J. Terry³

¹School of Physics, University of Sydney, Australia, ²Brain Dynamics Centre, Westmead Hospital, Australia, ³Department of Mathematics, University of Queensland, Australia

Hall E: Cote-St-Luc

SYMPOSIUM 29: Attention and auditory perception: Cerebral mechanisms revealed by the mismatch negativity

Symposium Chair: Carles Escera (Spain)

Activation of cerebral networks underlying involuntary attention by neural mechanism in the auditory cortex

Carles Escera, Elena Yago, Ma. José Corral, Sílvia Corbera, and Vanessa Carral
Neurodynamics Laboratory, Department of Psychiatry and Clinical Psychobiology, University of Barcelona

Relationships between working memory, distraction, and pre-attentive deviancy detection

Erich Schröger* and Stefan Berti

Institut für Allgemeine Psychologie, Universität Leipzig, Germany

Additional presenters to be confirmed

Hall F: Lasalle

SYMPOSIUM 30: Stochastic Resonance in Sensory Information Processing

Symposium Chair: Walter G. Sannita (Italy/USA)

Co-Chair: Frank Moss (USA)

Human Perception of Stochastic Resonance and Stochastic Synchronization in Animal Sensory Systems

Frank Moss

Center for Neurodynamics, University of Missouri at St. Louis, USA

FRIDAY AUGUST 2, 2002

Noise-Enhanced Sensory Function

J.J. Collins

Center for BioDynamics and Department of Biomedical Engineering, Boston University,
Boston, MA, USA**Stochastic Synchronization and phase resetting in the human brain: Novel methods for the detection and manipulation of cerebral synchronization**

Peter A. Tass

Institute of Medicine, Research Centre Juelich, Germany

Stochastic resonance in vision: an electrophysiological and fMRI human study

Walter G Sannita

University of Genova, Italy; State University of New York, Stony Brook, New York, USA

1:30 PM – 3:00 PM Lunch Break**3:00 PM – 4:00 PM****Keynote Presentation 4 Hall B: Westmount/Outremont****George A. Ojemann**Department of Neurological Surgery, University of
Washington, Seattle, USA**The Neurobiology of Language and Verbal Memory:
Observations from Awake Neurosurgery****4:00 PM – 5:00 PM****Didactic Presentation 4 Hall B: Westmount/Outremont****John H. Gruzelier**Imperial College School of Medicine, Cognitive Neuroscience
London, (UK)**New Directions in the Psychophysiology of the
Schizophrenia Spectrum and Schizotypy****5:00 PM – 5:30 PM****Coffee Break****5:30 PM – 7:00 PM****POSTER PRESENTATIONS****SCIENCE FAIR SESSION 4****Hall G: Fontaine Exhibition Hall****7:30 PM – 11:00 PM****Hall W: Historic Windsor Station (A short walk from the Congress Site)****20TH ANNIVERSARY OF I.O.P. AWARDS GALA DINNER**

SATURDAY AUGUST 3, 2002 9:00 AM – 11:00 AM

Hall B: Westmount/Outremont

Workshop: Neurophysiology of Consciousness

E.Roy John (USA)

Karl Pribram (USA)

Moderator: C.A. Mangina, President IOP/UN (New York)

A Neurophysiological Model of Consciousness

E. Roy John

Brain Research Laboratories, NYU School of Medicine, New York, N.Y., USA

Brain and the Composition of Conscious Experience

Karl Pribram

Georgetown University, Washington DC, USA

Hall C: Verdun/Lachine

SYMPOSIUM 31: Psychophysiology of Attention Deficit Disorders II

Symposium Chair: Robert J. Barry (Australia)

ERP activity in Attention Deficit/Hyperactivity Disorder

Robert J. Barry*, Stuart Johnstone, and Adam R. Clarke

Brain & Behaviour Research Institute and Department of Psychology, University of Wollongong, Wollongong 2522, Australia

Event-related slow-wave activity in two DSM-IV subtypes of Attention-deficit/Hyperactivity Disorder

Stuart J. Johnstone*, Robert J. Barry and Aneta Dimoska

Brain & Behaviour Research Institute and Department of Psychology, University of Wollongong, Wollongong, Australia

A Historical Overview of ERP Research on Subgroups of AD/HD and Reading Disabled Children

Roscoe A. Dykman*

Departments of Psychiatry and Pediatrics, Arkansas Children's Hospital Nutrition Center, Little Rock, AR, USA

Adolescent AD/HD disturbances in preparatory EEG /post stimulus ERP processing, contrasted with delayed speed of processing in adult ADD

Evian Gordon*^{1,4,5}, Daniel Hermens^{1,2,7}, Ilario Lazarro¹, Stevie Whitmont³ and Simon Clarke⁶

¹The Brain Dynamics Centre, Westmead Hospital, ²Cognitive Neuroscience Unit, Dept. of Psychology, University of Sydney, ³Department of Psychology, University of Sydney, ⁴The Brain Resource Company Ltd., ⁵Department of Psychological Medicine, Westmead Hospital and the University of Sydney, ⁶Adolescent Medicine Unit, Westmead Hospital, ⁷NSW Institute of Psychiatry

The capacity allocation defect in AD/HD is not ameliorated by Methylphenidate

Marinus N. Verbaten*

Department of Psychopharmacology, Utrecht Institute for Pharmaceutical Studies, Utrecht University, The Netherlands

SATURDAY AUGUST 3, 2002 9:00 AM – 11:00 AM

**ORAL PAPER PRESENTATIONS
ORAL SESSION 8**

Hall F: Lasalle

Session Chair: Elisabeth Aardal-Eriksson

Salivary Cortisol and Posttraumatic Stress Reactions Methodological and Applied Studies Before and After Trauma

Elisabeth Aardal-Eriksson*, Ann-Charlotte Holm, Thomas E Eriksson, Tom Lundin, Lars-Håkan Thorell

*Department of Biomedicine and Surgery, Division of Clinical Chemistry, Faculty of Health Sciences, Linköping University, S-581 85 Linköping, Sweden

Autonomous Reactivity and Changes in Proprioception Following a Computerized Cognitive Task

E. Lyskov*, N. Kalezic, M. Heiden, H. Johansson.

Center for Musculo-skeletal Research, Umeå University, Umeå, Sweden.

Incremental Exercise, Plasma Concentrations of Catecholamines and Performance of a Psychomotor Skill

Terry McMorris*, Mark Tallon, Craig Williams, Neville Clayton, Jon Swain, and Julia Potter
University College Chichester, UK

Self-Mutilation: Temporal Stability of the Psychophysiological Tension Reduction Response

Cox, E.A.*, Haines, J., & Williams, C.L.

School of Psychology, University of Tasmania, Australia

The effect of video games on children's cortisol

Alipour*, J. Faraji, Y. Jafari, A. Mirrezaie

Department of Psychology, Payame Noor University, Tehran, Iran

A Prototype Emotion-Sensing Human-Computer Interface Device for PDAs

Collier K.L., Jovanov E*.

ECE Department, University of Alabama in Huntsville, USA

The application of event related potential measures for the analysis of a complex visuo-motor tracking task

Holger Hill^{1*}, Markus Raab²

¹Institute for Frontier Areas of Psychology and Psychohygiene, Freiburg, Germany

²Max-Planck-Institute for Human Development, Center for Adaptive Behavior and Cognition, Berlin, Germany

SATURDAY AUGUST 3, 2002

11:00 AM – 11:30 AM Coffee Break

11:30 AM – 12:30 PM Keynote Presentation 5 Hall B: Westmount/Outremont
Robert Malmo
Department of Psychiatry, Faculty of Medicine, McGill
University, Montreal, Canada
**On Reversible Deafness, Generalized Anxiety Disorder and
the Motoric Brain: A Psychophysiological Perspective**

12:30 AM – 1:30 PM CLOSING CEREMONIES
Hall A: Montreal Grand Ballroom

**6:00 PM – 12:00 AM POST-WORLD CONGRESS 20TH ANNIVERSARY OF
I.O.P. BOAT CRUISE WITH GALA DINNER (free of
charge) *Courtesy of the Presidency of I.O.P./UN***