



International Society for Cerebral Blood Flow & Metabolism

The ORGAN No. 31 (Nov. 06)

Dear ISCBFM Member,

As 2006 draws to a close, we must now draw our attention to BRAIN-07 in Osaka. One of the more immediate tasks is preparing our abstracts for submission. The deadline is January 1, 2007. The information regarding abstract submissions, as well as meeting registration and accommodations can be found at: <http://www.brain07.com/>.

In addition, there are a number of administrative issues that will need to be addressed in the coming months. The first is the election of 6 new members to the ISCBFM Board of Directors and a Treasurer; and the second involves the submission of bids for the 2011 meeting. Further details on these matters will appear in the January issue of The Organ.

Finally, I would like to persuade all of our members to encourage their colleagues, especially young investigators, to join the ICBFM. Of the many advantages associated with ISCBFM membership is the substantial discount in the registration fee for the biennial meeting. For further details, go to the ISCBFM website: <http://www.iscbfm.org/>.

Sincerely,

Dale Pelligrino

Secretary, International Society of Cerebral Blood Flow & Metabolism

▶ ▶ ▶ ▶ ▶ Gordon research Conference- Aug 2006, Oxford

From August 20 - 24, 2006 more than 130 scientists met at Magdalene College, University of Oxford, Oxford, UK for a Gordon Research Conference on 'Brain Energy Metabolism and Blood Flow'. Lively discussions surrounded topics such as ATP and oxygen consumption of the working brain during development and in relation to signalling between nerve cells; the importance of the turnover rates of neurotransmitters for brain's energy use; role of interneurons in neurovascular coupling, and the use of in vitro and in vivo techniques for the study of the interplay between astrocytes, neurons and blood vessels; the cellular underpinnings of BOLD and vascular signals in functional neuroimaging, and the changes in neurovascular and-metabolic coupling in disease states. More than 20 travel bursaries were sponsored by the

International Society for Cerebral Blood Flow and Metabolism, Sanofi-Aventis, Boehringer-Ingelheim, and Novartis.

The Gordon Conference format provided ample time and infrastructure for scientific and social interaction. Some issues were debated over a beer or a fine British cup of tea, during city walks, river punting or in the medieval dining hall with marvellous paintings dating back 4 or 5 centuries. The conference was concluded by a highly entertaining as well as thought provoking keynote lecture by Gyorgy Buzsaki. Four brilliant scientists received 'Roy and Sherrington Awards' for their excellent and lasting contributions to science: Maria Erecinska, Marianne Fillenz, Margaret Wong-Riley, and Astrid Nehlig. The participants voted to hold the next Gordon Conference on Brain Energy Metabolism and Blood Flow on the East coast of the USA, in August 2008. This conference will be chaired by Edith Hamel and Albert Gjedde. Further details will be posted soon on the webpages of the Society and in the newsletter.

Martin Lauritzen (Chairman) Edith Hamel (Vice-Chairman)

▶▶▶▶▶ Call for dues 2007

The year has passed rapidly and we are soon approaching 2007. By the end of November, you will be receiving invoices by e-mail or by post to pay the 2007 Membership.

If you have any questions please do not hesitate to contact:

ISCBFM Administrative Office:

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Email: info@iscbfm.org

▶▶▶▶▶ Call for Bid Brain/Brain PET 2011

The ISCBFM organizes the Biennial Brain and Brain PET symposia.

The 23rd International Symposium will be held in Osaka, Japan, May 20-24, 2007 and the 24th Congress will be held on the 15-29 June 2009, in Chicago, IL, USA .

In order to prepare the congress well in advance, we call for bids to host 4 years before the respective congress. Thus, the site of the 25th congress in 2011 will be selected at the Board meeting during The 2007 International Symposium that will be held in Osaka, Japan.

We encourage you to apply if you are interested in hosting the 25th International Symposium in 2011.

According to the usual rotation of Geographic sites, invitations for the 2011 congress should come from a European Country. The venue should be compatible with the size and type of the International Symposium.

► Bidding procedure

If you wish to apply, please contact the ISCBFM Administrative Office.
Please also visit our website www.iscbfm.org to view the “*Manual for the selection of future ISCBFM congress venue*” which includes policies and procedures for hosting a congress, including all the information regarding the basic needs for the congress (number of hotel rooms to accommodate participants, size of session rooms, size of public space for exhibition and poster area etc ...)

► Distribution of assignments

The agreement between ISCBFM and its PCO (Kenes International) will make it much easier for you to host an International Congress, as this arrangement removes all financial liability and risk from the hosting Member .

The Congress scientific program and scientific content of the Congress will be the joint responsibility of ISCBFM and the Programme committee. Much of the labor of soliciting and receiving abstracts, publishing programs and abstracts, and the major work of arranging hotels, meeting rooms, and so forth will be the responsibility of ISCBFM and its PCO. The distribution of assignments between ISCBFM, its PCO, and the local Organizing Committee are also described in the Manual.

► Deadlines for bidding:

If you are interested, send us your letter of intent and detailed bid for receipt before **March 12th 2007**.

Your proposals should be sent by e-mail or regular mail to the ISCBFM Administrative Office at: info@iscbfm.org

ISCBFM is happy to hear from any member who is interested in hosting what will be a great Congress in 2011! We will be happy to answer any questions or supply any additional information that you might need.

With kind regards to all,

ISCBFM Administrative Office

► ► ► ► ► Programme Committee – Brain 07

The scientific program Brain 07 (Osaka, Japan, May - 2007) is coming together nicely and the meeting promises to be both informative and exciting.

Bellow you will find scientific program.

For more information please visit the congress website: <http://www.brain07.com/>

Educational Courses

Educational course 1: Ischemic models and the limitation

Chair: T. Nowak (Tennessee) & T. Kirino (Tokyo)

I- Global Ischemia:

1. Gerbil model and introduction to key variables (Takaaki Kirino, Tokyo)
2. Rat models of 2-vessel and 4-vessel occlusion (Roland Auer, Calgary)
3. Cardiac arrest models and global ischemia in mice (Nobutaka Kawahara, Tokyo)

II- Focal Ischemia:

1. Surgical approaches to focal ischemia (Akira Tamura, Shizuoka)
2. Intravascular occlusions and magnetic resonance imaging (Michael Chopp, Detroit)
3. Perfusion monitoring and recent advances (Thad Nowak, Memphis)

Educational course 2: Functional brain imaging

Chair: F. Hyder (New Haven) & M. Tamura (Sapporo)

1. Multi-photon microscopy (Maiken Nedergaard, Rochester, NY)
2. Near-infra red spectroscopy (Mamoru Tamura, Sapporo)
3. Calibrated fMRI (Bojana Stefanovic, Bethesda, MD)
4. Perfusion MRI (Afonso Silva, Bethesda, MD)
5. High field and heteronuclear MRS (Douglas Rotheman, New Haven, CT)

Educational course 3: Anesthesia in stroke experiments

Chair: R. J. Trystman (Portland, OR) & T. Sakabe (Yamaguchi)

1. Introduction (Richard J. Trystman, Portland)
2. Are general and regional anesthetics neuroprotective (Hiroyuki Uchino, Tokyo)
3. Anesthetics in focal and global cerebral ischemia (D. Warner, Durham, NC)
4. Mechanisms of anesthetics on brain function (Takeshi Sakabe, Yamaguchi)
5. Inhalational anesthetics as preconditioning agents in ischemic brain (S. Murphy, Portland, OR)

Educational course 4: Proteomics in brain damage

Chair: E.H. Lo (Boston, MA) & M.M. Ning (Los Angeles, CA)

1. Introduction (Eng H. Lo, Boston, MA)
2. Proteomics of traumatic brain injury in animal models (Kevin Wang, Miami, FL)
3. Proteomics in Clinical Stroke (Edward C. Jauch, Cincinnati, OH)
4. Glycomics and the cell signaling in the brain: Proteomics of post-translational modification (Naoyuki Taniguchi, Osaka)
5. Bioinformatics for proteomic data repository and analysis (to be announced: Rolf Apweiler, Cambridge)
6. Organelle Proteomics and beyond, a look to the future of proteomics (Peipei Ping)

PET course 1: Imaging techniques in drug development

Chair: A. Lammertsma (Amsterdam) & H. Iida (Osaka)

1. Role of preclinical imaging studies (Don Burns, Rikki Waterhouse, Merck)
2. Role of MRI (Alan Evans, Montreal)
3. Ischemia imaging for therapeutic strategy (Jyoji Nakagawara, Sapporo)
4. Principles of micro dosing (Tony Gee, GSK)
5. Neuroreceptor imaging for dose optimization (Tetsuya Suhara, Osaka)
6. Imaging gene expression (Ron Blasberg, New York, NY)

PET course 2: Principles of PET including limitations

Chair: M. Senda (Kobe) & G.M. Knudsen (Copenhagen)

1. Instrumentation and reconstruction (Richard Carson, New Haven, CT)
2. Radiopharmacology (Christer Halldin, Stockholm)
3. Analysis of tracer kinetic data (Vincent Cunningham, GSK)
4. Flow and metabolism (Jun Hatazawa, Osaka)
5. Parametric receptor imaging (Gitte Moos Knudsen, Copenhagen)
6. Small animal PET imaging (Gary Hutchins, Indiana)

Presidential lecture

Chair: James McCulloch (Edinburgh)

Inflammation and Immunity in Stem Cell Therapies (**Theo D. Palmer**, Stanford, CA)

Regular symposia

Symposium 1: Regenerative therapy for ischemic injury

Chair: Frank Sharp (Sacramento, CA) and Nobutaka Kawahara (Tokyo)

#1: Introduction

Nobutaka Kawahara (Tokyo)

#2: Neurogenesis after focal ischemia, from rodent to human

Kunlin Jin (Novato, CA)

#3: Brain repair for stroke by hematopoietic progenitors

Akihiko Taguchi (Osaka)

#4: Brain and spinal cord remodeling after stroke with cell-based therapies

Michael Chopp (Detroit, MI)

#5: Transplantation of fetal neural stem cell for stroke

Byung-Woo Yoon (Seoul)

Symposium 2: Cellular mechanisms of neurovascular coupling

Chairs: Bruno Cauli (Paris) and Norihiro Suzuki (Tokyo)

#1: Introduction

Dale Pelligrino (Chicago, IL)

#2: Interneurons and microvascular regulation

Edith Hamel (Montreal)

#3: Astrocytic signaling and vascular regulation

Maiken Nedergaard (Rochester, NY)

#4: Vascular smooth muscle responses to neurovascular signals

Mark Nelson (Burlington, VT)

#5: In vivo vascular imaging

Chris Shaffer (Ithaca, NY)

Symposium 3: A fresh look at the blood brain barrier

Chair: Gregory del Zoppo (San Diego, CA) and N. Araki (Saitama)

#1: Introduction

Gregory del Zoppo (San Diego, CA)

#2: BBB and the neurovascular unit

Thomas Davis (Tucson, AZ)

#3: Aquaporin expression in the stroke and trauma

Kazuo Yamada (Nagoya)

#4: Matrix adhesion receptors and barrier integrity

Gregory del Zoppo (San Diego, CA)

#5: Pericytes interrogate the blood brain barrier

Paula Dore Duffy (Detroit, MI)

Symposium 4: Mechanism of ischemic brain damage and neuroprotection

Chair: H. Kinouchi (Kofu) and Anna Planas (Barcelona)

#1: Extra Mild hypothermia enhances neuroprotection and expands its therapeutic window following transient focal ischemia in rats

Tatsushi Kamiya (Okayama)

#2: Targeting the oxidative mechanism for reperfusion injury and neuroprotection after stroke

Pak H. Chan (Stanford, CA)

#3: Oestrogen and stroke: the potential for harm as well as benefit

Mhairi Macrae (Glasgow)

#4: Neuroprotection till 2006. What is next?

Anna Planas (Barcelona)

#5: Delayed and selective motor neuron death after spinal cord ischemia

Masahiro Sakurai (Sendai)

Symposium 5: Physiology of cerebrovascular endothelium and its role in brain pathology

Chair: Ute Lindauer (Berlin,) and Faraci F. (Iowa City, IA)

#1: Introduction

Ute Lindauer (Berlin)

#2: Regulation of cerebral blood flow by plasma purine and pyrimidine nucleotides: NO and EDHF-mediated dilations

Robert M. Bryan (Houston, TX)

#3: Regulation of calcium in cerebrovascular endothelium by TRP channels

S.P. Marrelli (Houston, TX)

#4: Angiotensin II –induced endothelial dysfunction in cerebral vessels during systemic hypertension

Sean P. Didion (Iowa City, IA)

#5: Role of endothelial dysfunction in the pathogenesis of ischemic stroke
Massimo Volpe (Rome)

Symposium 6: Molecular mechanism, evaluation, and therapy for aging and dementia

Chair: Peter St. George-Hyslop (Toronto) and Mikio Shoji (Hirosaki)

#1: Clues to mechanisms and treatment of Alzheimer's Disease from molecular biology and genetics.

Peter St. George Hyslop (Toronto)

#2: A β oligomer: Essential therapeutic target for Alzheimer's disease.

M. Shoji (Hirosaki)

#3: Two faces of activated glia: its deleterious and beneficial effects on Alzheimer's disease captured by noninvasive imaging of amyloidosis and gliosis.

Makoto Higuchi (Chiba)

#4: Apolipoprotein E has a critical influence on neural stem cell efficacy

Karen Horsburgh (Edinburgh)

Symposium 7: Advanced imaging in stroke, dementia and psychiatric conditions

Chair: Karl Herholz (Manchester) and N. Saito (Tokyo)

#1: Imaging of acute stroke with PET

Jean-Claude Baron (Cambridge)

#2: Diagnosis of acute stroke using MRI

Yasuo Katayama (Tokyo)

#3: Imaging of dementia

Karl Herholz (Manchester)

#4: Imaging of psychiatric conditions and genetic risk

Jarmo Hietala (Turku)

Symposium 8: Novel concepts in brain energy metabolism

Chair: Vannucci S.J. (NY) and Hyder F. (New Haven)

#1: New and old concepts in energy metabolism

Susan J. Vannucci (Columbia University, New York, U.S.A. sv2020@columbia.edu)

#2: Condition-dependent usage of energy substrates in human brain

Douglas Rothman (Yale University, New Haven, U.S.A. douglas.rothman@yale.edu)

#3: Role of the glucose transporters in delivering the fuel

Ian A. Simpson (Pennsylvania State U., Hershey, PA, U.S.A. iasimpson@psu.edu)

#4: MCTs and the importance of lactate as a fuel

Luc Pellerin (University of Lausanne, Lausanne, Switzerland. luc.pellerin@unil.ch)

#5: Metabolic imaging of brain activation: Where has the glucose carbon gone?

Gerry Dienel (Department of Neurology, University of Arkansas for Medical Sciences, Little Rock, Arkansas, U.S.A. gadienel@uams.edu)

Symposium 9: Mechanism and repair of neonatal brain damage

Chair: T. Ikeda (Osaka) and Henrik Hagberg (Göteborg)

#1: Brain injury in term and preterm infants: role of immuno-inflammatory mechanisms
Henrik Hagberg (Göteborg)

#2: White matter injury and the innate immune system
Timothy Vartanian (Boston, MA)

#3: Neonatal hypoxia-ischemia: participation of mast cells
Susan Vannucci (New York, NY)

#4: Clinical Aspects of White matter injury in developmental period
Hajime Togari (Nagoya)

Symposium 10: Brain lipids: role in cerebrovascular regulation and ischemic brain injury

Chair: Nabil Alkayed (Portland, OR) and Esther Shohami (Jerusalem)

#1: Reappraisal of the role of ROS and lipid mediators in the occurrence of chronic vasospasm following subarachnoid hemorrhage
Takao Asano (Kawagoe)

#2: In vivo imaging of brain lipid metabolism with PET
Giampiero Giovacchini (Milano)

#3: Role of prostanoids in neurovascular coupling and ischemic brain injury
Costantino Iadecola (New York, NY)

#4: Role of epoxyeicosanoids in cerebrovascular regulation and ischemic brain injury
Nabil J. Alkayed (Portland, OR)

Symposium 11: Neurophysiologic investigations of baseline activity: Implications for functional imaging

Chair: Richard Traystman (Portland, OR) and Fahmeed Hyder (New Haven, CT)

#1: Alteration of baseline activity by adaptation
Kang Cheng (Saitama)

#2: The negative BOLD response and baseline activity
Ralph Freeman (Berkeley, CA)

#3: The physiological basis of baseline activity
Robert G. Shulman (New Haven, CT)

Symposium 12: Crosstalk of the supersystems: brain-immune interactions in stroke

Chair: Ulrich Dirnagl (Berlin) and K. Kitagawa (Osaka)

#1: Introduction
Ulrich Dirnagl (Berlin)

#2: Changes in peripheral immunity after stroke

Patricia Hurn (Portland, OR)

#3: Autoreactive immune responses after stroke: Effect of infection
Kyra Becker (Seattle, WA)

#4: Stroke induced immunodepression
Andreas Meisel (Berlin)

#5: Clinical stroke: Inflammation, immunity, infection
A. Chamorro (Barcelona)