# Preface

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The Sixth International Meeting on Brain Energy Metabolism continued the series of biennial discussions on highly relevant topics within this field of neurochemistry that began in France in 1993. The focus of the present meeting was "transporters, mitochondria, and neurodegeneration." Recent findings on neurodegenerative diseases have contributed to our understanding of how pathologic conditions resulting from deregulation of mitochondrial metabolism affect normal nervous system functions. Throughout the series of brain energy metabolism meetings, we have been able to investigate cell-specific processes involving mitochondria function and dysfunction, particularly with respect to the oxidation of energy substrates in the brain. Further elucidation of such cytologic relationships and chemical interactions, may prove crucial for understanding the pathogenesis of human neurodegenerative diseases.

The Sixth International Meeting for Brain Energy Metabolism was planned originally for August 2003 in Beijing, China. Unfortunately, on account of the well-known occurrence of Severe Acute Respiratory Syndrome (SARS) in Hong Kong and China in early 2003, the organizers of the Brain Energy meeting had no choice but to reschedule the meeting. After the global SARS outbreak subsided in the later part of 2003, Arne Schousboe suggested a nice resort on Crete for the venue of this meeting. The committee accepted his recommendation and the conference was held on Crete in May 2004.

The members of the executive committee were: Arne Schousboe, Denmark; Ursula Sonnewald, Norway; Mary McKenna, USA; Roger F. Butterworth, Canada; and Ralf Dringen, Germany. The program committee consisted of: Juan J. Bolanos, Spain; Susan M. Hutson, USA; Rolf Gruetter, USA; Stephen R. Robinson, Australia; Sebastian Cerdan, Spain; John R. Lowry, Peter Morris, and Michael D. Norenberg, USA; and Luc Pellerin, Switzerland. Special thanks to the honorary advisors Leif Herz, Canada, John Clark, UK, and John Edmond, USA, for their help in drawing up the scientific program of this conference. The members of the local organizing committee, Andreas Plaitakis, Ilias Kouvelas, Kyriaki Thermou, Cleanthe Spanaki, and Ioannis Zaganas, helped with all practical details and made special efforts to find local sponsors. The coordinating secretaries Terence Lok Ting Lau, Yin Wan Wendy Fung, Jean Young, Lisa Lo, Huili Li, and Zhen Gao did a superb job in bringing together the various activities of the meeting and in taking care many of its organizational aspects.

Participants from 16 countries and 4 continents attended this conference. Thirty-five speakers gave an update on the latest development in areas of energy metabolism, mitochondria, and neurodegeneration. The themes of the present meeting were: (1) transporters of glutamate, glutamine, and monocarboxylates, and metabolism of glial cells; (2) nitrosative stress, neurodegeneration and neuroprotection; (3) strategies and targets for neuroprotection in ischemia, oxidative stress, and glutamate excitotoxicity; (4) mitochondrial permeability transitions in metabolic insults and injury of the nerve tissue; and (5) measuring of bioenergetics. Bruce R. Ransom, an internationally recognized authority on physiology and function of glial cells and on pathophysiology of neural injury, gave the keynote speech, providing a comprehensive update on white matter energy metabolism under normal and pathologic conditions. The poster session included 32 posters from around the world. It provided the opportunity for lively discussions on topics related to cultured glial and neuronal cells, mitochondria, nitrosylation, oxidative stress, ischemia, inflammation, neurotoxicity, gliotoxicity, and metabolism of energy, glucose, lactate, glutamate, and glutamine.

The present special issue of *Journal of Neuroscience Research* captures the exciting findings and valuable discussions presented during the meeting. We are indebted to Arne Schousboe and Mary McKenna for collecting, reviewing, and editing the articles submitted by the speakers of the scientific sessions and the authors of selected posters. These represent the latest developments in the field of brain energy metabolism.

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The next International Meeting for Brain Energy Metabolism will take place in 2006 and will be organized by Dr. Rolf Gruetter in collaboration with Dr. Luc Pellerin and Dr. Pierre Magistretti. During the closing ceremony of the Crete meeting, Dr. Gruetter announced Lausanne, Switzerland as the next meeting venue. We hope to see you all again in Switzerland for another wonderful and insightful meeting.

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