

*Editorial***Diabetes and the Nervous System**

This special edition of *Diabetologia* contains the reports of a conference titled "The Neural Control of Metabolism" held at the Kroc Foundation Conference Center in The Santa Ynez Valley, California, in Spring, 1980.

The role of the nervous system in energy intake and utilization comes of age with this publication. Since diabetes mellitus and obesity are two major modern diseases of energy regulation, it is fitting that a diabetes-related journal support and participate in the publication of the conference proceedings. Historically, this field has been hindered by the disciplinary barriers that exist among clinical neurologists, endocrinologists, neurophysiologists and psychologists. The apparent anatomical separation of the endocrine and the nervous systems, as well as their apparent differences in chemical messengers, reinforced this separation. The Kroc Foundation had the foresight 5 years ago to sponsor the first conference in this area in an effort to assist investigators who did not often meet and discuss what to them were common problems. This meeting was summarized briefly and helped to alert the scientific community of the new opportunities available. In the intervening period a wealth of new information has resulted in the generation of many new concepts. In order to disseminate such information further and summarize the state of the art while it is still possible, the organizing committee solicited journal publication and requested the participants to summarize their work and put it into the context of the whole field at the present time. The international scope of science is well exemplified by broad representation of workers in this relatively new area, and therefore a journal with international scope and outlook was clearly needed. The organizing committee would like to thank both the Kroc Foundation and the Editors of *Diabetologia* for their support.

One theme stands out from the following papers. Metabolic processes are finely tuned by complementary actions within the neuroendocrine system. Many different chemical messages are used to communicate this information. Critical processes are characterized by apparent redundancy. If a process is regulated in such a way, there may be no answer to the question

of which regulatory system is most important. Therefore, there is still a large task before us in integrating physiology with disease. Most of the studies and reviews presented focus on the efferent operation of the neuroendocrine metabolic control system. This stems largely from greater knowledge in this area rather than greater importance. The central integration of information, and the afferent inputs, largely remain to be discovered and delineated. It is clear that the new information regarding neuropeptide regulation will be critical to further knowledge of energy metabolism, and therefore the explosion of information that is occurring in this area of the neurosciences will have a major impact on future developments.

In order to provide for simplicity of access to the reader, the entire conference was divided into six major sections. Additionally, four participants were asked to provide a broad overview of related areas to link the various sections with the others and to provide a focus to integrate with the central thrust of the conference. Therefore, we are particularly indebted to Drs. Pardridge, Fernstrom, Powley and Smith for their fine, topical reviews. Following each paper there was a lively discussion between participants. In order to focus for the reader those areas in which questions remain or in which controversy exists or in which supplemental information was available, Dr. Woods prepared a condensed version of the discussion which is included. Since the field is rapidly changing and developing, the reader would be well advised to be cautious in assuming that hard data underly the opinions expressed. We have asked the participants to leave as much of the discussion intact as possible so that contemporary thinking is reflected in the published document. As in the past, the organizers and the participants welcome comments, suggestions, criticisms and participation in this area of investigation from the scientific and clinical community.

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