

Hepatic encephalopathy: an enigma from patient to enzyme and back

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This special issue represents the proceedings of the latest meeting of the International Symposia on Hepatic Encephalopathy and Nitrogen Metabolism (ISHEN) held in Denmark, May 2012. The meeting was sponsored by Salix, Alfa-Wassermann, Norgine, Aarhus University Hospital, Merz, Otsuka, Ferring, Ocera, Fresenius-Kabi, Gambro, Hyperion, ToftCare, and Springer Verlag. The historical background was the growing understanding of the importance of ammonia, where progress was hindered by analytical difficulties. Therefore, in 1972 laboratory and clinical ammonia researchers decided to meet to solve these problems. That done, the focus gradually shifted towards hepatic encephalopathy (HE). The historical link to ammonia is still present: hyperammonemia, virtually always due to disturbed liver function, is now considered to be ‘the first hit’ in the pathogenesis. The focus on HE gave name to the International Society in 2005. The ISHEN gathers about 200 active HE researchers and the idea is to bring together basic scientists and clinical hepatologists (and others taking care of HE patients) to span the gap between the detailed mechanistic research and the clinical management and trials. This

is a highly needed endeavour, because HE remains a biomedical enigma – and an enigma that has proved remarkably resistant to systematic research for nearly a century. HE is a frequent complication to severe liver disease and while the cause of HE, thus, is self-evident, the pathogenic mechanisms are not lucid. Besides liver transplantation there is often no treatment for the failing liver and in the same line usually no causal treatment option for HE. HE now is the most debilitating symptom of liver disease, severely compromising the lives of the patients and their caregivers. Furthermore, HE is that manifestation of liver disease that occupies most resources in the health care system. Progress is needed and the multidisciplinary approach of the ISHEN meetings seems to be a promising way forward. The work of the researchers meeting in ISHEN is driven by the challenge of the disturbed brain function of HE but it also gives rise to new insight in brain function associated with other pathological conditions as well as the normal state. An open-minded approach to all aspects of HE is needed, as reflected in this special issue. Some of the papers report original data ranging from molecular events to human behaviour, others are mini-reviews that provide research-based state-of-the-art opinions. As a slogan for this special issue we could have used a slight paraphrasing of Virchow’s saying: ‘In our special issue anyone can make a fool of himself’. As Editors we feel that no one actually did so, despite the open approach – but read and judge for yourself! Happy reading – go botanizing – whatever your interest in HE you will find something valuable to you – and it was a pleasure to prepare it for you.

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