Glucagon-Like Peptide 1: On Its Way to Clinical Application

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In May 1993, a first International Symposium on glucagon-like peptide 1 (GLP-1) has been held in Copenhagen (Denmark). While deciding to organize this meeting we were inspired by the imagination that a get-together (fig. 1) of all leading experts in the field could be a milestone in the history of GLP-1. GLP-1 is actually a gut hormone that has a good chance to make its way from the basic science experiment into the field of clinical usage which is the treatment of type II diabetes mellitus. This fact alone supports the scientific efforts gastrointestinal endocrinologists and others have undertaken to understand its meaning.

However, the meeting also showed that more work needs to be done before GLP-1 or a related synthetic analogue is ready for clinical applications.

The Copenhagen meeting became a milestone for GLP-1 research since it has provided the state of the art about this hormone, its biological actions and its possible therapeutic perspective in the treatment of non-insulin-dependent diabetics. This is documented by the short communications presented here.

One suggestion to simplify the nomenclature of the proglucagon-derived peptides, and here especially the GLPs, was approved by all participants. From now on the name GLP-1 should be reserved for the GLP-1(7-36)amide peptide, naturally occurring in the gut. Like other amidated peptides a Gly-extended form does also exist; this should be called Gly-extended GLP-1.

Furthermore, processing intermediates exist, e.g. N-terminally extended GLP-1, which may correspond to proglucagon 72-107 and may exist in a Gly-extended form and in an amidated form. In cases of doubt one should refer to the peptide according to the positions of its terminal residues in proglucagon, e.g. for the major proglucagon fragment: proglucagon 72-158. The organizers wish to express their warmest thanks to Novo Nordisk (Denmark) and Bayer AG (FRG) for their financial support.