Editorial

Glucagon-Like Peptide-1 and Diabetes 2012

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The present special issue was aimed at elucidating the role and the effects of glucagon-like peptide-1 (GLP-1) in type 2 diabetes. GLP-1 is a gastrointestinal hormone, mainly secreted after meals, capable of increasing glucose-stimulated insulin release and inhibits food intake. The physiological activity of this hormone has been demonstrated to be impaired in obese subjects and in patients with type 2 diabetes in comparison with healthy subjects.

Available data suggest that GLP-1 plays a relevant role in the regulation of postprandial glucose metabolism in physiological conditions. Several new drugs act through the GLP-1 signaling system to stimulate insulin release and regulate blood glucose levels in patients with diabetes. Therefore, a special issue exploring the physiological properties of GLP-1 and the possible applications in several clinical settings is particularly warranted.

This special issue is composed of 5 articles: two mechanistic studies and three systematic reviews and meta-analyses, exploring GLP-1-induced signaling mechanisms and molecular identification and cloning of the GLP-1 receptor. The reviews and meta-analyses are focused on the promising beneficial extraglycaemic effects of the incretin-based therapy, including those on lipid profile and cardiovascular risk.

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