"METHOD FOR TREATING OR PREVENTING A PANCREATIC DYSFUNCTION"

FIELD OF THE INVENTION

The present invention relates to a method for improving pancreatic function in a subject in need thereof. The method may be used for treating and/or preventing and/or delaying the onset or progression of a disorder resulting from or associated with pancreatic dysfunction, e.g., resulting from abnormal endocrine or exocrine function of the pancreas.

BACKGROUND OF THE INVENTION

The pancreas is a multifunctional gland organ in the digestive and endocrine system of vertebrates. It is both an endocrine gland (producing several hormones including insulin, glucagon, and somatostatin), and an exocrine gland (secreting pancreatic juice containing digestive enzymes that pass to the small intestine). The enzymes in the pancreatic juice help in the further breakdown of the carbohydrates, protein, and fat in the chyme.

The part of the pancreas with endocrine function is made up of numerous cell clusters called islets of Langerhans. There are four main cell types in the islets classified by their secretion: α cells secrete glucagon, β cells secrete insulin, δ cells secrete somatostatin, and PP cells secrete pancreatic polypeptide. The islets are a compact collection of endocrine cells arranged in clusters and cords and also contain a network of capillaries. The capillaries of the islets are lined by layers of endocrine cells in direct contact with vessels, and most endocrine cells are in direct contact with blood vessels, by either cytoplasmic processes or by direct apposition.

In contrast to the endocrine pancreas, which secretes hormones into the blood, the exocrine pancreas produces digestive enzymes (e.g., trypsinogen, chymotrypsinogen, elastase, carboxypeptidase, pancreatic lipase, and amylase) and an alkaline fluid, and secretes these into the small intestine through a system of exocrine ducts in response to the small intestine hormones secretin and cholecystokinin. Digestive enzymes are produced and secreted by acinar cells of the exocrine pancreas. Specific cells that line the pancreatic ducts, called centroacinar cells, secrete a bicarbonate- and salt-rich solution into the small intestine.

Pancreatic dysfunction can lead to overproduction or underproduction of hormones and/or enzymes produced by the pancreas. Conditions associated with or