

Zealand sponsored educational symposium highlights the need for better medical treatment of short bowel syndrome

- **Short bowel syndrome is a serious and undertreated orphan disease of growing prevalence**
- **Patients with short bowel syndrome have a compromised intestinal function, and improving their capacity to absorb nutrients is the key to better treatment and health**

Copenhagen, 20 September 2016 – Zealand Pharma (Zealand) has sponsored an educational symposium on short bowel syndrome (SBS) to help increase awareness and understanding of the need for better care and treatment options for patients. Zealand has a proprietary GLP-2 peptide agonist, glepaglutide¹, in Phase II development for short bowel syndrome.

At the symposium, professor, MD, Dr. Sci., Ph.D., Palle Bekker Jeppesen, a leading SBS expert from the Department of Medical Gastroenterology at the University Hospital of Copenhagen (Rigshospitalet) in Denmark, gave a presentation entitled "Gaps and opportunities for the medical care of SBS patients". Highlights of the presentation included:

SBS is a serious and undertreated rare condition, of which prevalence is growing

SBS is a condition of compromised intestinal function. It is most often caused by surgical removal of the intestines to treat underlying diseases like Crohn's, cancer and ischemia, and trauma. Severity varies and SBS covers both patients with intestinal failure (SBS-IF) and patients with intestinal insufficiency (SBS-non IF). In Denmark, the establishment of a nationwide system to provide home parenteral care for SBS-IF patients has increased survival and doubled SBS prevalence over the past four decades to currently ~80 per one million inhabitants. Applying the same prevalence across the European Union would indicate ~50.000 SBS patients, of which about half dependent on parenteral support.

Better understanding and improvement of SBS patients' absorptive function is key

Key in the medical treatment of patients with SBS is to improve the absorptive capacity of their remaining gut. For the development of more targeted and effective therapies it is thus important to better understand and address the multiple pathophysiological changes occurring in patients' gastrointestinal function. Several native peptide hormones, including GLP-1 and GLP-2, play essential roles for nutrient absorption and may constitute a relevant basis for new medical therapies.

As concluding remarks, Dr. Palle Bekker Jeppesen stressed that many SBS patients have a very fragile health, an increased risk of organ failure and severe infections coupled with a significantly reduced quality of life due to constant diarrhea and the need for daily parenteral support. He praised close collaborations between clinical centers, caregivers, the pharmaceutical and biotechnology industries as well as patient organizations as the optimal path to provide better care and treatment for patients.

¹ Glepaglutide is a proposed International Nonproprietary Name (pINN).



For further information, please contact:

Britt Meelby Jensen, President and Chief Executive Officer

Tel: +45 51 67 61 28, email: bmj@zealandpharma.com

Hanne Leth Hillman, Senior Vice President, Investor Relations and Communications

Tel: +45 50 60 36 89, email: hlh@zealandpharma.com

About short bowel syndrome

Short bowel syndrome (SBS) is a complex chronic disease characterized by severe loss of intestinal function. SBS can result from either physical removal of portions of the small intestine and colon or from loss of function as a result of bowel damage. The primary underlying causes of SBS are Crohn's disease, colon cancer, ischemia, and radiation.

Patients with SBS have compromised intestinal absorptive capacity and lack the inability to maintain protein-energy, fluid, electrolyte, or nutrient balances, when they are on a conventionally accepted, normal diet. Many are therefore dependent on increased and frequent intake or/and parenteral (intravenous) supplements in the form of fluids, salts and nutrition delivered through a central catheter to maintain body homeostasis. Before the 1970s, this group of patients often died because of dehydration and malnutrition. Today, the implementation of parenteral support, including the possibility of home administration, has in some countries increased survival and life expectancy for patients with SBS, resulting in high prevalence growth. There are currently estimated to be 10-20,000 SBS patients in the EU and a similar number in the US.

Patients dependent on regular parenteral support experience a number of serious and life-threatening complications associated with their disease and treatment. These include shortened life expectancy, high risk of sepsis or other infections, blood clots, liver damage and renal impairment. In addition, patients have markedly reduced quality-of-life due to constant diarrhea and dependency on daily parenteral support, which can be up to 10-12 hours over-night causing sleep disturbance and restraining them in their daily activities.

Teduglutide (Gattex[®]/ Revestive[®]), a GLP-2 receptor agonist, was approved in 2012 and launched in 2014 in both the US and Europe as the first medicine indicated for the treatment of SBS.

About Zealand Pharma A/S

Zealand Pharma A/S (Nasdaq Copenhagen: ZEAL) ("Zealand") is a biotechnology company focused on the discovery, design and development of innovative peptide-based medicines. Zealand has a portfolio of medicines and product candidates under license collaborations with Sanofi, Boehringer Ingelheim and Helsinn and a pipeline of proprietary product candidates, which primarily target specialty diseases with significant unmet needs.

The company's first invented medicine, lixisenatide, a once-daily prandial GLP-1 analog for the treatment of type 2 diabetes, is licensed to Sanofi. Lixisenatide is marketed as Lyxumia[®] outside the United States and approved as Adlyxin[™] in the United States. Lixisenatide has been developed in a fixed-ratio combination with Lantus[®] (insulin glargine) which product is under regulatory review in the United States and in Europe.

Zealand's proprietary pipeline includes: *Dasiglucagon** (ZP4207) as *single-dose rescue treatment* for acute, severe hypoglycemia (Phase II); *Glepaglutide** (ZP1848) for treatment of short bowel syndrome (Phase II); *Dasiglucagon** (ZP4207) *multiple-dose version* intended for use in a dual-hormone artificial pancreas system for better hypoglycemia control and diabetes management (in preparation for Phase II); and other earlier stage clinical and preclinical peptide therapeutics.

Zealand is based in Copenhagen (Glostrup), Denmark. For further information about the company's business and activities, please visit www.zealandpharma.com or follow Zealand on Twitter @ZealandPharma.

* Dasiglucagon and glepaglutide are proposed International Nonproprietary Names (pINN)