



Zealand advances its proprietary, long-acting GLP-2 analogue, ZP1848, into clinical Phase II development for the treatment of Short Bowel Syndrome

- **Short Bowel Syndrome (SBS) is a gastro-intestinal specialist care indication and a medical area of high unmet medical needs**
- **GLP-2 based therapy has demonstrated clinical benefits in patients with SBS, and ZP1848 has a unique stability profile in liquid formulation with potential for convenient administration**
- **Enrolment of the first patients into a Proof-of-Concept trial is planned for Q1 2016**
- **The start of Phase II development of ZP1848 for SBS is an important step in line with Zealand's strategic focus on increasing the value of the proprietary pipeline**
- **The ZP1848 program in SBS will be presented at Capital Markets Days in New York and Copenhagen in November 2015**

Copenhagen, 17 September 2015 - Zealand announces the initiation of a clinical Phase II development program for its proprietary peptide therapeutic, ZP1848, for the treatment of Short Bowel Syndrome (SBS). ZP1848 is a long-acting, stable and soluble GLP-2 receptor agonist invented and wholly owned by Zealand.

Professor, MD, Ph.D and lead study investigator, Palle Bekker Jeppesen, the Department of Medical Gastroenterology, University Hospital of Copenhagen, commented:

“Short Bowel Syndrome is a very serious condition affecting a growing number of patients who have had larger parts of their intestines removed. Patients with Short Bowel Syndrome have reduced ability to absorb nutrients and to maintain adequate fluid and electrolyte balance, which makes many of them dependent on regular access to parenteral (intravenous) nutritional support through a central catheter. This is associated with shortened life span, potentially life-threatening complications including sepsis, blood clots, liver or renal damage, and severely reduced quality-of-life. GLP-2 based therapy has demonstrated the ability to improve intestinal absorption with the potential to reduce the need for parenteral support and offer patients relief and flexibility.”

In preclinical studies, ZP1848 has shown efficacy on small intestine growth and demonstrated the physico-chemical properties of a long-acting, stable and soluble peptide therapeutic with the potential for convenient administration in liquid formulation. Zealand has also investigated ZP1848 in a combined single (SAD) and multiple (MAD) ascending dose Phase I trial. Results from this trial demonstrated that ZP1848 is



safe and well tolerated with a supportive effect on bowel function. The attractive potential identified for ZP1848 in Short Bowel Syndrome and the opportunity for Zealand to initiate a clinical Phase II development program in this specialist care indication is an important step in line with the company's strategic focus on increasing the value of its proprietary pipeline.

Commenting on the advance of ZP1848 into Phase II development, **Britt Meelby Jensen, President and Chief Executive Officer of Zealand** said:

“We have for some time been aware of the attractive opportunity for ZP1848 in SBS, and we are very pleased to be in a position to advance the product into Phase II development. It is our belief that this Zealand invented peptide therapeutic has high potential to help patients with SBS better manage their disease with fewer side effects. That we now advance ZP1848 into clinical Phase II Proof-of-Concept is an important step in the expansion of our pipeline of proprietary peptide medicines in alignment with our value growth strategy.”

The Phase II Proof-of-Concept trial is planned as a randomized, double-blind, dose-finding trial to investigate the clinical efficacy and safety of ZP1848 in patients with SBS. The primary objective of the trial will be to assess intestinal absorption. The first patients are planned to be enrolled and dosed in Q1 2016.



Capital Market Days in New York and Copenhagen in November 2015

Zealand will host Capital Market Days in November in New York (Tuesday 3 November) and at the company's address in Glostrup, Copenhagen later in November (date TBC). At these events, in addition to other pipeline updates, the new clinical program for ZP1848 in SBS will be presented. Final invitations with full agendas and speaker names are expected to be issued before the end of September.

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About Short Bowel Syndrome

Short Bowel Syndrome (SBS) is a complex chronic disease characterized by severe or complete loss of bowel 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, ischemia, radiation and colon cancer.

Patients with SBS have reduced intestinal absorption and ability to maintain protein-energy, fluid, electrolyte, or micronutrient balances when on a conventionally accepted, normal diet. Many are therefore dependent on constant



parenteral (intravenous) supplements in the form of fluids, salts and nutrition 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, via a catheter placed in a central vein close to the heart, has increased survival and life expectancy for patients with SBS, resulting in high prevalence growth. There are estimated 10-20,000 SBS patients in the US and a similar number in the EU

Patients dependent on regular parenteral support experience a number of serious and life-threatening complications associated with their disease and treatment including shortened life span, high risk of sepsis, blood clots or liver damage, and reduced quality-of-life due to the time required for and consequences of frequent access to an intravenous pump.

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

Zealand Pharma A/S (Nasdaq Copenhagen: ZEAL) ("Zealand") is a medicinal biotech company with leading expertise in the identification, design and development of novel peptide medicines. Zealand has a proprietary pipeline of novel drug candidates and a portfolio of products and projects under license collaborations with Sanofi, Helsinn Healthcare and Boehringer Ingelheim – primarily in the fields of cardio-metabolic diseases and acute care indications.

The proprietary pipeline includes; *danegaptide* for ischemic reperfusion Injuries in Phase II development, *ZP1848* for Short Bowel Syndrome in Phase II development and the stable glucagon analogue, *ZP4207 as a single-dose rescue pen* for severe hypoglycemia in preparation for Phase II, and *ZP4207 as multiple-dose use* for the correction of mild to moderate hypoglycemia in evaluation for the next clinical development step after Phase I, as well as *several preclinical peptide therapeutics*.

Zealand has invented lixisenatide, a once-daily prandial GLP-1 agonist, which is marketed globally (ex-US) by Sanofi for the treatment of Type 2 diabetes. Sanofi submitted lixisenatide for regulatory approval in the US in late July 2015, and has a combination of lixisenatide with insulin glargine (Lantus®) which is on track for regulatory submission in the US in Q4 2015 and in Europe in Q1 2016.

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