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### **Two new scientific studies confirm benefits of Orafti®Synergy1 in reducing the risk of diabetes**

Two new research studies, conducted by Professor Gary Frost and his team from Imperial College London, and funded by Diabetes UK, have shown three major beneficial effects of BENEEO's chicory root fibre Orafti®Synergy1 (oligofructose-enriched inulin) in reducing the risk of diabetes<sup>i,ii</sup>. The first is in helping prediabetic people to lower energy intake and enhance weight loss. The second is in assisting prediabetic adults reduce fat content in their liver and muscle tissue and the third is in improving their insulin secretion after a meal. The researchers have concluded that (fermentable) chicory root fibres have unique metabolic effects that are of particular benefit to people at risk of diabetes.

With approximately 415 million diabetic people worldwide and predictions<sup>iii</sup> that these numbers will rise dramatically in the coming years, the new findings are of great relevance. Prevention strategies specifically targeted to people in a prediabetic state - thus at the onset of developing diabetes - are urgently needed. Diet and lifestyle changes aimed at weight loss are known to be effective but they are difficult to sustain over the long-term, due to a compensatory increase in appetite and food intake. With this in mind, Professor Frost and his team explored the potential of Orafti®Synergy1 in diabetes prevention (as these chicory root fibers have shown in earlier research to reduce appetite as well as food intake and to promote weight loss in overweight adults).

In the first parallel-design study, that took place over an 18 week time period, one group of 20 prediabetics consumed 30g of Orafti®Synergy1 daily and a control group of 19 prediabetics consumed a non-fermentable fibre. Both groups lost approximately 5% of their body weight during the first 9-week weight loss period (as anticipated and supported by regular dietary counselling), however the Orafti®Synergy1 group showed a sustained and significantly greater weight loss in the following 9-week weight-maintenance period (where no further support was given). This could have resulted from the significantly greater reduction in food intake observed: after 9 weeks of Orafti®Synergy1 supplementation, participants consumed about 270 kcal less in an ad libitum meal test.

## Press Release



This is the first time that regular Orafti<sup>®</sup>Synergy1 supplementation has been confirmed as enhancing a traditional calorie-restricted lifestyle programme, in the prediabetic population, leading to greater weight loss.

In addition, the results showed that Orafti<sup>®</sup>Synergy1 led to a greater reduction in body fat percentage, with significant reductions in liver fat and soleus muscle fat. Liver fat is known to be a risk factor in metabolic diseases like diabetes mellitus, thus the observed lowering effect of Orafti<sup>®</sup>Synergy1 on liver fat, independent of weight loss, in prediabetic people provides an additional benefit in diabetes prevention.

The second study confirms the beneficial effects of Orafti<sup>®</sup>Synergy1 on weight loss and energy intake in the prediabetic population. In addition, improvements in insulin response were observed with regular Orafti<sup>®</sup>Synergy1 supplementation over a six week period. In this cross-over design study, 34 participants with impaired fasting glucose (IFG) and/or impaired glucose tolerance (IGT) consumed up to 30g Orafti<sup>®</sup>Synergy1 daily, or a non-fermentable fibre as control. In prediabetic participants with impaired fasting glucose (IFG), Orafti<sup>®</sup>Synergy1 supplementation significantly reduced fasting insulin and insulin resistance. A meal tolerance test in a subgroup of 13 participants revealed further that the chicory root fibre enhanced early insulin secretion after a meal without changes in total insulin secretion, and increased early GLP-1 secretion in comparison with the control.

Anke Sentko, Vice President Regulatory Affairs and Nutrition Communication at BENE0: “The results of these studies is exciting news for prediabetics. We know that chicory root fibres help people eat less, naturally. These new results however stress the impressive potential of Orafti<sup>®</sup>Synergy1 as a tool in diabetes prevention strategies – moving it beyond just the realms of enhancing weight loss. With its mild, sweet taste chicory root fibre can be easily integrated into a person’s daily diet.”

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## Press Release



For further information on BENEEO and its ingredients, please visit: [www.beneo.com](http://www.beneo.com) and [www.beneonews.com](http://www.beneonews.com) or follow BENEEO on Twitter: @\_BENEEO or LinkedIn: [www.linkedin.com/company/beneo](http://www.linkedin.com/company/beneo)

**The BENEEO-Institute** is an organisation which brings together BENEEO's expertise from Nutrition Science, Nutrition Communication and Regulatory Affairs teams. It acts as an advisory body for customers and partners reaching from ingredient approval, physiological effects and nutritional composition to communication and labelling. The key nutritional topics that form the basis of the **BENEEO-Institute's** work include weight management, digestive health, bone health, physical and mental performance, the effects of a low glycaemic diet in the context of healthy eating and disease prevention, as well as dental health.

The **BENEEO-Institute** facilitates access to the latest scientific research and knowledge throughout all nutritional and regulatory topics related to BENEEO ingredients. It provides BENEEO customers and partners with substantiated guidance for some of the most critical questions in the food industry. BENEEO is a division of the Südzucker Group, employs almost 900 people and has production units in Belgium, Chile, Germany and Italy.

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<sup>i</sup> Guess et al (2015) A randomized controlled trial: the effect of inulin on weight management and ectopic fat in subjects with prediabetes. *Nutr Metab* 12:36.

<sup>ii</sup> Guess et al (2016) A randomized crossover trial: The effect of inulin on glucose homeostasis in subtypes of prediabetes. *Ann Nutr Metab* 68, 26-34.

<sup>iii</sup> Intern. Diabetes Federation (2015) Diabetes Atlas 7<sup>th</sup> ed, <http://www.diabetesatlas.org/>