

May 2013

**Scientific study confirms the safety and prebiotic effect
of BENEEO's Orafti®Synergy1 in infants**

A recent scientific study has provided further evidence that the use of BENEEO's Orafti®Synergy1 (oligofructose-enriched inulin) in infant formula is safe, well-tolerated and demonstrates a prebiotic effect in infants during the first four months after birth.

The study was led by Prof. Dr. Ricardo Closa Monasterolo, Director of the Neonatal Unit, Hospital University Joan XXIII of Tarragona, Spain and conducted at the university hospitals of Tarragona and Sant Joan de Reus in Spain.

The findings of the study proved that neonates receiving a formula supplemented with BENEEO's prebiotic fibre showed a microflora composition close to that of breast-fed infants, with a higher proportion of bifidobacteria, softer stools and a higher deposition frequency compared to the control group receiving maltodextrin.

Ricardo Closa Monasterolo: "Breast-fed babies have a different microflora that is mainly composed of bifidobacteria and lactobacilli compared to bottle-fed infants that display a more complex flora with a predominance of clostridia, bacteroides and streptococci. It has also been observed that breast-fed infants grow and develop differently with reduced incidence of infections, allergy and childhood obesity. Whereas human milk contains about 8% of total carbohydrates in the form of prebiotic oligosaccharides, infant milk formulas do not contain such prebiotics unless they are enriched. With the study we were able to demonstrate that the supplementation with 0.8g/dL Orafti®Synergy1 to formula milk during the first four months of life is safe and effective in terms of gut health."

Study confirms beneficial effects found in newborns to infants of four months

The results follow a previous study published by Veereman-Wauters et al. in 2011 that proved the physiological benefits and prebiotic effect of Orafti®Synergy1 in newborns during a period of four weeks after birth. The objective of this new study was to demonstrate safety, tolerance and

efficacy of Orafti[®]Synergy1 in new-born babies over a longer period of time, during the first four months of life.

The study was set up in a large randomised, double-blind, placebo-controlled design including 252 formula-fed, healthy infants recruited within the first four weeks of life and 131 breast-fed infants. The infant formula was supplemented with 0.8g/100ml of Orafti[®]Synergy1 or with maltodextrin in the control group. Formulas were provided until the age of four months. During the intervention period, measurements included normal growth, formula intake and acceptance, water balance, blood and urine biochemical parameters to confirm the safety of the Orafti[®]Synergy1 supplementation.

The results of this new study demonstrate that Orafti[®]Synergy1 added to infant formula at a level of 0.8g/dL is well-tolerated and supports the normal growth of a baby. Water balance as well as blood and urine biochemical parameters were similar in both formula groups. Stool frequency increased and stool consistency was softer in the Orafti[®]Synergy1 supplemented group, in comparison to the typical hard stool of standard formula babies. These results of the Orafti[®]Synergy1 group were closer to the breast-fed group and following microflora analysis, confirmed the prebiotic effect of Orafti[®]Synergy1.

Orafti[®]Synergy1 brings infant formula effect one step closer to breast feeding

Within infant nutrition, breastfeeding is considered the gold standard of nutrition and is strongly recommended as the preferred mode of feeding. As infant formulae (as well as breast milk), represent the sole source of nutrients during the first few months of a baby's life, it's crucial that these formulae are of the highest standards possible. Infant formulae must be safe, promote normal growth and development, and their composition, as well as functional and physiological benefits, should come as close as possible to those of human milk. Among other compounds, mother's milk contains a substantial amount of oligosaccharides that may account for the bifidobacteria-predominant colonization observed in the microflora of breast-fed versus formula-fed infants.

Anke Sentko, Vice President Regulatory Affairs and Nutrition Communication BENEEO: "This major study demonstrated the safe use of our ingredient in infant feeding. Infants receiving the Orafti[®]Synergy1 formula showed a microbiota composition closer to that of breast-fed infants,

compared to those receiving the non-supplemented infant formula. These results confirm and extend the existing broad scientific knowledge of prebiotic inulin-type ingredients from chicory in infant and small children nutrition. We're confident that this additional scientific data will give confidence and inspiration to manufacturers that are looking to improve their baby-food products."

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The BENEО-Institute is an organisation which brings together BENEО'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 **BENEО-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 **BENEО-Institute** facilitates access to the latest scientific research and knowledge throughout all nutritional and regulatory topics related to BENEО ingredients. It provides BENEО customers and partners with substantiated guidance for some of the most critical questions in the food industry. BENEО 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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