Clasado and University of Reading demonstrate effect of advanced prebiotics on the immune system of the elderly in human study

Jersey and Reading, UK, July 28, 2015 - Clasado Biosciences Limited, the producers and suppliers of the second generation prebiotic Bimuno® (B-GOS), a unique trans-galactooligosaccharide, and the Department of Food and Nutritional Sciences, The University of Reading, UK, today announce the results of human research demonstrating the positive effects of an advanced prebiotic (Bimuno) on the immune system of the elderly. The study also produced further evidence of the interrelationship between the microbiota in the human gut, specifically bifidobacteria, and the immune system. B-GOS (Bimuno) is the only prebiotic to have demonstrated an immune modulating effect on the immune system of healthy elderly subjects.

The results of the study are published in the British Journal of Nutrition in a paper entitled “Influence of galactooligosaccharide mixture (B-GOS) on gut microbiota, immune parameters and metabonomics in elderly persons”. The study confirms the results of a separate study published by Clasado and the University of Reading in the American Journal of Clinical Nutrition.

The combined study results showed that the consumption of B-GOS (Bimuno) produced a very positive effect on both gut microbiota and the immune systems of the elderly. In the elderly, both the immune system and the gut microbiota weaken and deteriorate with age. Reversing those changes in gut microbiota can therefore support the immune system and boost gut health. The results are also applicable to other groups that are affected by immune system deterioration, including those that have used antibiotics, or experienced high levels of stress.

“Whilst advances in global healthcare have led to increased life expectancy, this in turn has led to an increase in the elderly population, one that is vulnerable to a range of health related disorders. Increasing the effectiveness of the immune system in these individuals is therefore an important aid in counteracting the health concerns they can face,” said Graham Waters, CEO of Clasado. “This trial is part of a wider program of clinical research in which we are currently engaged, investigating the central role of the gut in a range of health concerns. By investigating the axes between the gut, the brain, and the immune system, Clasado hopes to contribute to future options for patients with under-served medical needs.”
The randomised, double-blind, placebo controlled cross-over study tested the effect of a GOS mixture (Bimuno B-GOS) on gut microbiota, markers of immune function and metabolites in 40 elderly volunteers with an age range of 65 to 80. B-GOS consumption led to a significant increase in bifidobacteria. In addition, higher IL-10 (interleukin-10), IL-8, NK (natural killer) cell activity and lower IL-1β levels were also observed.

Additional trials are planned by Clasado and the University of Reading studying the effects of B-GOS on the immune system, where further positive outcomes are expected. It is specifically hoped that the second generation prebiotic B-GOS (Bimuno) would be able to act as an adjunct to existing therapies for inflammatory diseases, for example rheumatoid arthritis or Inflammatory Bowel Disease (IBD) including Crohn’s disease and ulcerative colitis.

The human study is the latest in an on-going research programme of randomised controlled intervention trials and clinical trials being undertaken by Clasado in collaboration with Oxford University, the University of Reading and other internationally recognised research institutes. This study followed a recent human trial by Clasado and Oxford University, published in the journal Psychopharmacology, which showed for the first time that the advanced prebiotic (Bimuno) has the potential to reduce anxiety. Additional studies have demonstrated that modulation of the gut microbiota with Bimuno can lead to changes in brain biochemistry as well being able to target conditions such as metabolic syndrome and obesity.

“There is a substantial body of evidence linking the brain, the gut microbiota and the immune system. This research provides additional confirmation that the immune system can be modulated through the gut microbiota,” said Dr Jelena Vulevic, Research and Development Manager, Clasado. “Further research is needed to ascertain the potential for gut bacteria modulation to provide additional therapies for conditions that have immune or inflammatory components.”

“In our research investigating the advanced prebiotic Bimuno, we have demonstrated excellent results with the ability to enhance the immune system through altering the gut microbiota,” said Professor Glenn Gibson, Professor of Food Microbiology, Head of Food Microbial Sciences, University of Reading.

About the Clinical Study
In this study, 40 elderly (aged 65 – 80 years) volunteers received both B-GOS (Bimuno-galactooligosaccharides) and placebo (maltodextrin) in a cross-over manner for 10 weeks with a 4 week wash out period in between. Gut microbiota, markers of the immune function and metabolites were assessed in stools and blood respectively. B-GOS consumption led to a significant increase in beneficial bifidobacteria and had a positive effect upon the immune response as evidenced by an improvement in NK cell activity, increased anti-inflammatory IL-10 and decreased pro-inflammatory IL-1β cytokines. The link to the study is here: http://journals.cambridge.org/bjn/5989.
About Clasado Biosciences

Clasado are manufacturers and suppliers of a unique patent protected trans-galactooligosaccharide called Bimuno which exhibits a range of clinically proven health benefits in the areas of digestive and immune health. Clasado is committed to discovering, developing and harnessing the latest ground breaking prebiotic technology, providing clinically proven solutions which improve and enrich the quality of people’s lives.

Bimuno is the result of intensive research & development dating back to 2000 and conducted in collaboration with the University of Reading’s Food Microbial Sciences Unit and other globally recognized research institutes.