

Case Study

Contract Research: Developing a Prebiotic product

Key Facts

- Some gut bacteria are associated with diarrhoea and other gut disorders while others, known as probiotics, can have positive effects.
- Prebiotics are non-digestible food ingredients that stimulate the growth or activity of bacteria in the digestive system which are beneficial to the host's health.
- The prebiotic functional foods market is now worth £59 million to the EU economy.
- Clasado Ltd develops prebiotic products for both the human and animal markets.
- Professor Glenn Gibson is the Head of the Food Microbial Sciences Unit at the University of Reading.
- The University of Reading has had a contract with Clasado for over 8 years to help develop a new product.
- The final product, Bimuno, a second-generation prebiotic, is now available from high street pharmacies.
- Clasado was awarded the Frost & Sullivan 2009 European Food & Beverage Award for New Production Innovation.

The Client

Clasado Ltd develops products directed towards 'healthy eating for all', working on the proven concept of general health being linked to the digestive system and diet.

Clasado has a long term research and development program focusing on further areas including food supplements, infant nutrition, livestock feed and pet nutrition.

The Challenge

The prebiotic functional foods market is now worth £59 million to the EU economy, with 60% of all functional foods being directed towards gut interventions. As digestive difficulties are extremely common place there is a need for efficacious intervention that reduces the risk of gastroenteritis, inflammatory conditions and disorders that may have a systemic effect.

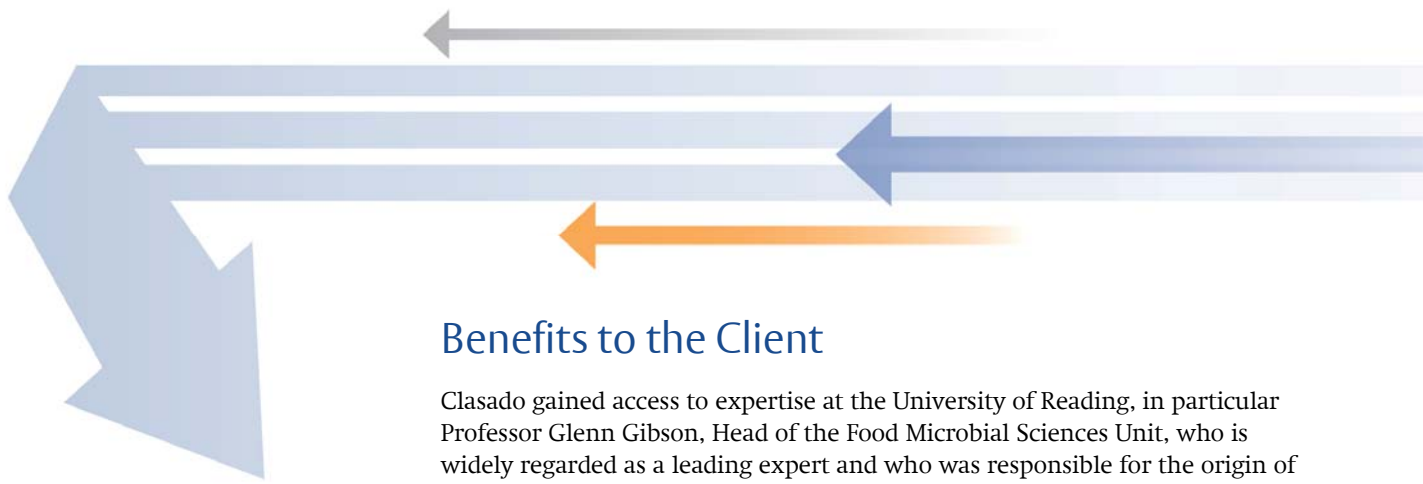
Solution

Clasado originally contacted the University of Reading regarding an assessment of the prebiotic potential of their pre-existing milk powders after hearing about the University's research into prebiotics in the 1990s.

Clasado approached Professor Glenn Gibson, Head of the Food Microbial Sciences Unit at the University of Reading where, using a laboratory model of the human gut and in vivo studies, they researched substrates for 'positive bacteria' of the gut. Prebiotics are non-digestible food ingredients that stimulate the growth of such bacteria indigenously.

A prebiotic product was created in the laboratory and subjected to a series of tests, including human studies, in collaboration with the University's agriculture department. Research was also undertaken in the University's pilot plant facility where the final product, Bimuno, was created.

Bimuno is a second-generation prebiotic that can alter people's gut flora and thereby positively affect gut bacteria. Launched as a health food supplement in Boots, Bimuno is available in white powder form and can be added to everyday foods and drinks. Bimuno is on sale in high street pharmacies.



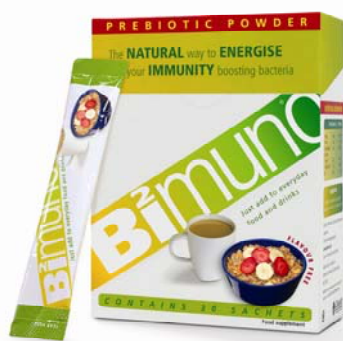
Benefits to the Client

Clasado gained access to expertise at the University of Reading, in particular Professor Glenn Gibson, Head of the Food Microbial Sciences Unit, who is widely regarded as a leading expert and who was responsible for the origin of the prebiotic concept in 1995.

Clasado also accessed the range of facilities necessary to progress prebiotic research through to saleable product.

The research, carried out specifically for their requirements, has opened up the possibility of new markets, including Irritable Bowel Syndrome and frequent travellers. Supplements for the general population with enhanced immunity for the over 65s have been tested and other areas are under investigation.

In December 2009 Clasado was awarded the Frost & Sullivan 2009 European Food & Beverage Award for New Production Innovation. The New Product Innovation Award is a prestigious recognition of Clasado's accomplishments in the digestive health ingredients market.



'During the last eight years we have enjoyed a fruitful collaboration which, based on the excellent facilities and expertise supplied by the University of Reading, has resulted in the development of a novel and efficacious prebiotic product.'

George Tzortzis
R&D Manager, Clasado

Benefits to the University

The University has welcomed its association with the development of a product from conception to market place and has gained publicity from the research.

The contract provides the University with an opportunity for cutting edge research and publication of papers in peer reviewed scientific journals, as well as presentations at international conferences.

The research has also opened up collaborations with other leading researchers and institutions.

Clasado has sponsored a research programme worth more than £1.5 million to date and this has allowed the career progression of several postdoctoral scientists and PhD students.

University of Reading

The University of Reading is a world-class research-intensive university covering a broad spectrum of disciplines across the Life and Physical Sciences, Arts and Humanities, Social Sciences and Henley Business School. Areas of particular strength include: Climate Systems Science, Preventative and Therapeutic Health Sciences, Sustainable Construction and Environments and Computational Science and Informatics.

The University works with businesses providing support for research and development, as well as access to expertise and equipment to solve business challenges. To find out how you can access the leading minds at the University of Reading please contact our Knowledge Transfer Centre.