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## Oligosaccharides: An overview of beneficial sweeteners for food products

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Oligosaccharides are carbohydrates that have three to six units of simple sugars (monosaccharides). They are found in many plants with large amounts include Jerusalem artichokes from which most commercial inulin is extracted. They are also found in onions, garlic, legumes, wheat, asparagus and other plant foods. Most oligosaccharides have a mildly sweet taste and have certain other characteristics, such as mouth feel they lend to food. This mouth feels characteristic interest food industry to add oligosaccharides in some foods as a partial substitute for fat and sugars and to improve texture. Because 90% of oligosaccharides escapes digestion in small intestine and reach the colon where it perform a different function as a growth factor (prebiotics) that enhance the growth of beneficial bacteria (probiotics) in the colon. This recent benefit has increased the market for oligosaccharides. Properties, benefits, legal status and manufacturing process for oligosaccharides available in the market will be highlighted in this presentation.

## **Biography**

Osama Ibrahim is a highly experienced, principal research scientist with particular expertise in the field of microbiology, molecular biology, food safety, and bioprocessing for both pharmaceutical and food ingredients. He is knowledgeable in microbial screening /culture improvement; molecular biology and fermentation research for antibiotics, enzymes, therapeutic proteins, organic acids, food flavors, biochemistry for metabolic pathways and enzymes kinetics, enzymes immobilization, bio-conversion, and analytical biochemistry. He was external research liaison for Kraft Foods with Universities for research projects related to molecular biology and microbial screening and holds three bioprocessing patents. In January 2005, he accepted an early retirement offer from Kraft Foods and in the same year he formed his own biotechnology company providing technical and marketing consultation for new start up biotechnology and food companies.

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