

Business Opportunities

# Oxford Nutrascience offers better taste

Oxford Nutrascience is seeking brand-owners worldwide to license its delivery systems that use prebiotic soluble fibres to make medicines and food supplements more pleasant to take.

Chief executive officer Nigel Theobald said the company's chewy confectionery, chewable tablets and liquid suspensions could "improve taste, mouth feel and active ingredient dispersability". They could also add prebiotic health benefits to products, he remarked.

The UK-based company also wants to find business partners around the world for its Ellactiva Calcium Chews brand. Ellactiva is currently available in the UK through retailer Alliance Boots and in the Middle East through Hauora Products.

Theobald pointed out that "taking calcium supplements can often be difficult due to the unpleasant chalky taste of the supplement". For this reason, he added, Ellactiva had been developed with a "unique blend of calcium carbonate and milk minerals to create better-tasting chews".

Oxford Nutrascience plans to expand beyond calcium chews this year. Theobald said the company had developed a range of fortified confectionery containing omega-3, glucosamine, cranberry extract and other ingredients. These had previously been difficult to deliver in this way, he added, due to taste issues and degradation of the ingredient in the cooking process. Each chew had the required dose to make it an effective supplement, he noted.

It is still early days for Oxford Nutrascience, which through the Ellactiva brand had sales of £43,000 (€49,000) in the year ended 31 December 2008 and £36,000 in the eight months ended 31 August 2009. The company's operating loss increased from £120,000 in 2008 to £174,000 in the first eight months of 2009.

It was founded in February 2008 by Theo-



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bald and another ex-Boots man, Marcelo Bravo. Theobald was involved with OTC medicines and healthcare product development at Boots, while Bravo worked in new business development for the company. Bravo also worked in research and development at Procter & Gamble.

Oxford Nutrascience has just raised £1.1 million before expenses through an initial public offering on London's Alternative Investment Market (AIM). The company now has cash resources of approximately £1.5 million, which it plans to use to "develop the business and fund further research and development".

According to Oxford Nutrascience, its delivery systems based on prebiotic soluble fibres:

- Disperse and solubilise medicines
- Improve taste and mouth feel
- Simplify processing and eliminate additives
- Incorporate prebiotic health benefits

In terms of intellectual-property protection, the company said its technology was the subject of two patent applications, both initially filed in the UK. One covers the confectionery composition while the other involves the delivery systems.

Theobald maintained Oxford Nutrascience's chewy confectionery was a "great format for unpleasant-to-take supplements, such as large calcium tablets, or children's supplements". "Anyone with young children will know how much easier it is to get kids to take supplements if they enjoy them," he observed.

### Could lead to a gritty texture

Traditional confectionery chews were made soft, Theobald noted, by balancing the use of crystallising sugars (sucrose) with reducing sugars (glucose syrup). Adding minerals to traditional confectionery chews could lead to a gritty texture, he added, as the minerals could change the balance and promote crystallisation.

The taste benefits of using traditional confectionery chews could also be outweighed by the high sugar content, he said, but reducing the sugar and fat content of a traditional confectionery chew could compromise both taste and texture.

Oxford Nutrascience uses a blend of prebiotic soluble fibres to reduce the sugars and fat traditionally used to make chews and to provide favourable organoleptic properties. "Our fortified chew is reduced in sugar and fat, and high in prebiotic fibre," claimed Theobald, "but with the same soft texture as traditional confectionery chews."

Moving on to the company's Chewitab and



Nigel Theobald, chief executive officer of Oxford Nutrascience, says the company's new delivery systems can improve the taste and feel in the mouth of food supplements and OTC medicines

liquid suspensions, Theobald said these were suitable for OTC medicines, particularly for patients and consumers with swallowing difficulties. "This is a common problem among the elderly and children, but also all age groups who are ill, in bed or on the go," he added.

Theobald noted that the company's medicines development work was focused on chewable allergy tablets containing the active ingredient loratadine, as well as suspensions containing ibuprofen.

Chewitabs chewable tablets produce a light 'crunch' when bitten and then form a soft chew that dissolves quickly in the mouth. This meant that they could be taken without water, Theobald noted.

Chewitabs are claimed to be suitable for convenience-driven OTC medicines – such as analgesics, allergy treatments and digestive aids – and medicines for the elderly.

They could be manufactured using standard tablet-compression equipment and pressures, said Theobald, and came in a range of sizes to allow for different doses of ingredients to be incorporated.

Commenting on its liquid suspensions, Oxford Nutrascience notes that gels, syrups and suspensions are widely used delivery systems for a range of medicines and nutraceuticals, and are generally used for children's analgesics and cough and cold medicines. "However, the for-

mulation of these medicines poses a number of challenges including dispersing hydrophobic ingredients, maintaining stability and providing for acceptable organoleptic properties,” the company says. “Typically, formulations use a range of dispersants and stabilisers and also tend to have sugars or sweeteners added to them for flavour enhancement.”

The company claims it has developed a suspension system for delivering medicines and nutraceuticals without the need for traditional surfactant and stabiliser ingredients. “Our suspension system not only remains stable over time but is also adequately preserved,” says the company. “It is based on soluble fibres that are naturally sweet, so the need for extra sweeteners is minimised or, in some instances, can be avoided altogether.”

“Moreover, given the ability of our delivery system to effectively wet and disperse hydrophobic ingredients,” adds the firm, “it could be manufactured via a one-step mixing process which is simpler and may offer cost savings relative to a multistep process.”

■ For more information contact Nigel Theobald, chief executive officer, Oxford Nutrascience Group, Centre for Innovation & Enterprise, Oxford University, Begbroke Science Park, Sandly Lane, Yarnton, Oxfordshire OX5 1PF, UK (Tel: +44 1865 854874; Email: [n.theobald@nutrascience.co.uk](mailto:n.theobald@nutrascience.co.uk)).

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