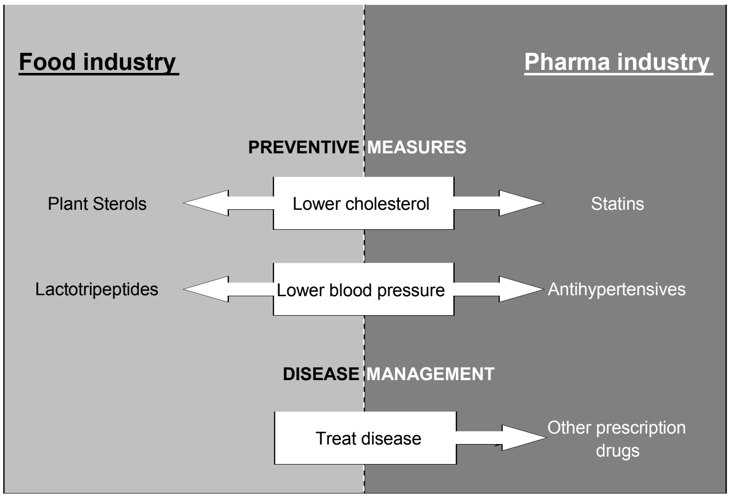
BUSINESS INSIGHTS

Next-Generation Nutraceuticals

Food and pharma convergence in disease prevention and personalized nutrition

Examples of food and pharma approaches to heart disease



Source: Next-Generation Nutraceuticals

"The discovery of ingredients with pharma-like properties, such as plant sterols that lower cholesterol, is opening up new markets for food products with added health benefits. The industry is now looking for new opportunities for value-added products to improve specific aspects of health and wellness as way to increase profit margins. The approaches of the food and pharma industries to chronic diseases such as heart disease are summarized above. While both industries are now aiming to provide products that prevent disease, treating disease remains the primary pursuit of the pharma industry..."

Identify new and emerging revenue opportunities in nutraceutical ingredients for food, drinks and pharmaceutical companies with this new report

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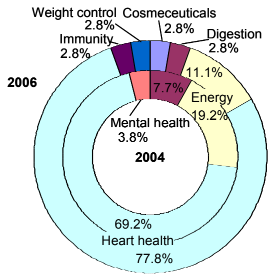
Unilever's products by functional category, 2004-2006



Source: Next-Generation Nutraceuticals

"Unilever is an innovative company, entering the market with novel food products that include new functional ingredients with increasingly pharma-like properties, such as blood pressure lowering and appetite suppression ingredients. One new ingredient, licensed from Japanese company Calpis in 2005, is a lactotripeptide (AmealPeptide) that has been proven to reduce blood pressure in clinical trials..."

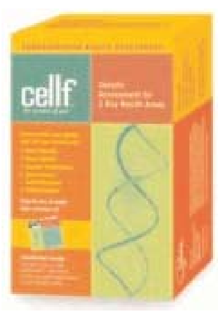
Today, consumers are taking a more proactive approach to managing their health and the prevention of diet-related diseases, such as obesity, diabetes, cardiovascular and bone and joint diseases. Many of these diseases are at epidemic levels, and this combined with increasing patient power makes the prevention of these lifestyle diseases attractive markets for both the food and pharmaceutical industries to exploit.

Next-Generation Nutraceuticals is a new report published by Business Insights that provides analysis of how the food and pharmaceutical industries are becoming more aligned in their approach to consumer health. This report assesses the changing regulatory landscape in addition to how the strategies of leading ingredients, food, drinks and pharmaceutical companies are evolving in the new consumer health marketplace.

Understand how food and drinks manufacturers are applying genomic and proteomic technologies that are widely used in the pharmaceutical industry in order to create increasingly sophisticated functional food products with this new report.

Some key findings from this report...

The Cellf Assessment Kit from Sciona



Source: Next-Generation Nutraceuticals

"The leader in the field of personalized nutritional advice based on genetics is Sciona Inc. Sciona sell genetic testing kits - Cellf Assessment Kits - online and in supermarket pharmacies in the US (above). Customers receive a personalized nutrition and health assessment based on the results of the cheek swab genetic test and a completed questionnaire giving information on diet, lifestyle and family history..."

- **The functional food and drinks market was worth $26.4bn in Europe and the US in 2005.** It continues to grow at a CAGR of 4.4%, driven by consumers' increasing acceptance of functional foods and a desire to self-medicate.
- **The food and drinks industry is adopting pharma technologies in order to create more sophisticated and personalized health products.** These technologies include genomics, transcriptomics, metabolomics and nanotechnology.
- **Labelling and health claim regulations are likely to change globally as a result of the evolution of functional food and drinks.** These changes are likely to include issues such as harmonization of regulatory guidelines and more extensive clinical trials.
- **A major growth area for Nestlé is heart health.** In 2004, of all the functional products launched by the company, only 6.5% were heart health products, but this share increased to 29.7% in 2006.

Your questions answered...

Examples of obesity drugs in development

Phase I	
Company	**Product**
Predix Pharma	PRX-07034
Nastech	Peptide YY (3-36)
Solvay	SLV319
Shionogi	S2367
Amgen	AMG-071/076
Amylin	AC162352
GSK	856464
GTx	Androgen receptor agonists
Peptimmune	GT-389255
Manhattan Pharma	Oleoyl-estrone

Phase II	
Company	**Product**
Pfizer	CP 945598
Amylin	AC137
Merck & Co	C-2624, MK-0364 C-5093, C-2735
Arena Pharma	APD356
Aeson	Fluasterone
Nisshin Kyorin Pharmaceutical	n5984
Spherix	tagatose
Alizyme/Takeda	ATL962
Sanofi-Aventis	SR-147778, AVE-1625
Servier	S-15261
GSK	Radafaxine
Metabolic	AOD9604
Vivus	Qnexa

Filed	
Company	**Product**
Sanofi-Aventis	Acomplia

Source: Next-Generation Nutraceuticals

"In contrast to the limited uptake of pharmaceutical products to treat obesity, $85bn was spent on food and drink products in the US and 5 major European markets that target obesity through 'low-in' or diet food and drinks. Sales of diet food and drink products are expect to reach $100.5bn by 2010 as companies actively research and develop alternative ways to modify calorific intake using functional ingredients..."

- In what ways are the food and pharma industries converging?
- How are the food and pharma industries tackling the prevention of lifestyle related health problems including obesity, diabetes and cardiovascular disease?
- How are functional food and drinks evolving to have qualities associated with pharma products?
- How are food and drinks companies applying the use of pharma technologies?
- How will regulatory changes affect the future of functional foods and drinks globally?
- Which companies are the leading innovators in nutrigenomics and with whom are they partnering?

This new report will enable you to...

Recent products launched that contain TEAVIGO™

Nestlé Jive for Life Sorbet
Launched in South Africa Apr 2005

Toni Adelgaza Te (Slimming tea)
Launched in Ecuador Oct 2006

Source: Next-Generation Nutraceuticals

"TEAVIGO™ is a green tea extract (epigallocatechin gallate) that is used widely in traditional Asian medicine and is marketed by DSM as having beneficial effects such as weight control, which has been demonstrated in animals, improved oral health and as being potentially beneficial for heart health. DSM believes the future is personalized nutrition and the company is likely to be a market leader in this field..."

- **Assess changing cross-market dynamics** using this report's analysis of convergence between companies including Chr. Hansen and BASF and the pharmaceutical industry and the innovative functional ingredients that this produces.
- **Understand how nutrigenomics will revolutionize the functional food and drinks market** through enabling a more personalized approach to the management of diet and health, mirroring pharmacogenomic and personalized medicine developments in the pharmaceutical industry.
- **Identify the opportunities and threats resulting from regulatory changes regarding health claims on food and drinks in Europe, the US and Japan**, and the prospect of a closer alignment with pharmaceutical regulation in the development of the next generation of functional food and drink products.
- **Predict future food and pharma product developments** using the report's critical evaluation of recent partnering activity between leading food and drinks companies and innovative biotechnology platform developers.

Business Insights

Chapter 1: Food and Pharmaceutical Disease Prevention

Cardiovascular Disease

Sales

Heart health, like obesity, offers attractively large and growing markets for food and drinks and pharma companies (Table 1.4). Heart health is also the US consumer's top health concern (International Food Information Council, 2006) providing a driving force for product development in both industries.

In 2005, $84bn was spent in the US and 5 major European markets on the pharmaceutical treatment of CVD conditions. By 2010 sales are expected to rise to $105bn. CVD product sales include some of the leading global pharmaceutical products such as the cholesterol lowering agents (statins) Lipitor (atorvastatin, Pfizer) and Zocor (simvastatin, Merck & Co.). Leading drug classes include the statins and triglyceride reducers, the blood pressure modulating agents (anti-hypertensives) which include angiotensin II antagonists (AIIA) and calcium channel blockers (CCB), anti-thrombotics and anti-coagulants.

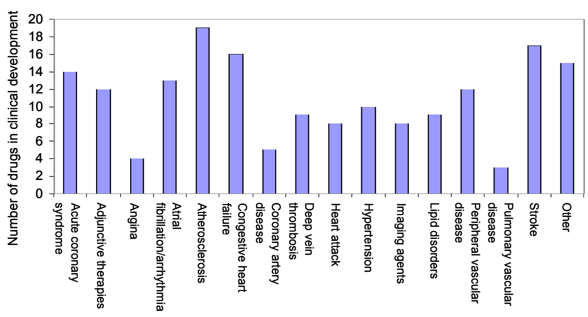
Table 1.4: Size of the food and drinks and pharmaceutical markets for heart health, (US$,m), 2005-2010

	Food and drinks		Pharmaceuticals	
	2005	**2010**	**2005**	**2010**
France	193	251	7889	10200
Germany	361	524	7132	7803
Italy	181	250	5116	5017
Spain	119	161	3467	4262
UK	214	293	4459	1554
US	4385	5952	56228	76376
Total	**5455**	**7433**	**84294**	**105214**

Source: Next-Generation Nutraceuticals

The cost of not treating CV disease is considerable and the American Heart Association estimates that in the US alone over $394bn per year is spent on both direct and indirect costs of CV disease. This is one of the major drivers of continued heavy investment by the pharmaceutical industry in R&D as there are still significant opportunities to develop drugs to treat and prevent CV diseases and greater emphasis is being placed on early and more aggressive treatment in patients who are at high risk. According to PhRMA there are around 150 medicines in clinical development to treat heart disease and stroke (Figure 1.7), highlighting the high level of research activity within this field.

Figure 1.7: Drugs in clinical development for CV disorders



Source: Next-Generation Nutraceuticals

Similarly, products for heart health are a major focus for many of the largest food companies including Nestlé, Unilever and Ajinomoto, with sales of heart health products reaching $5.5bn in 2005. The industry uses a range of functional ingredients in its products for heart health: ingredients with pharma-like properties (e.g. plant sterols that reduce cholesterol and lactotripeptides that reduce blood pressure); and ingredients that have been demonstrated, to differing extents, to reduce the risk of coronary heart disease (omega-3, additional fruit, vegetables and fiber, antioxidants). These ingredients are being introduced into everyday foods such as bread, milk, fruit juice, yogurt and margarine to give consumers a wide choice of products aimed at improving their health.

Order this report today to find out more...

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