Risk Management for Corporate Leaders
Integrating Best Practices for Superior Strategy Execution

Scenario Analysis Workshop

February 9, 2012

WORKSHOP
READING MATERIALS
“Our food should be our medicine.  
Our medicine should be our food.”

-- Hippocrates  
Circa 460 – 370 BCE
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This briefing book on was prepared by Fuld & Company, a consulting firm based in Cambridge, Massachusetts with offices in London and Manila. The market summary and company-specific information was developed by Fuld & Company. Opinions expressed in these materials may be those of sources used to develop the information, or of Fuld.

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1. **Agenda**

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2. Introduction

Positioning itself as the world’s #1 food company, Nestlé has made a bet specifically on nutraceuticals and health nutrition, and has shifted the strategic focus of its company. Nestlé has a stated goal to be the global leader in health science nutrition by 2020.

The designer foods or functional foods market continues to be hot despite the recent global economic slowdown. In fact, some analysts argue that consumers are turning to nutritional products as a means of reducing their healthcare costs. The market, which includes nutritionally-enhanced foods and beverages as well as supplements, is expected to exceed $250 billion by 2015, driven by consumer demand, demographics, and health trends around the world. Functional food products are targeting heart disease, diabetes, Alzheimer’s, obesity, and other conditions that are increasing in the developed world.

This global opportunity is receiving considerable attention from multinational food companies and the drug industry. In October 2010, Swiss food giant Nestlé announced its plans to invest over half a billion dollars in the next decade towards creating a stand-alone health science business to “pioneer a new industry between food and Pharma.” Nestlé is looking to leverage its existing multi-billion dollar nutrition business which includes brands such as Gerber, PowerBar, and Jenny Craig. Similarly, over the last decade Danone has refocused its portfolio on nutrition, including its $17-billion purchase of Royal Numico, a leader in infant and clinical nutrition products. This deal, along with its blockbuster Activia probiotic yogurt, gives Danone a stronghold in the areas of health and nutrition.

But can the food companies such as Nestle compete against the pharmaceutical companies, some of which are moving back into the over-the-counter medicines market, including the nutraceutical business? Pharmaceutical companies, looking for growth opportunities as drug patents expire, may be better-equipped to endure the costly and time-consuming R&D for products. GSK Consumer Healthcare, a leader in vitamins and other nutritional supplements, has successfully launched several of its nutritional beverage products- including Lucozade and Horlicks’- in China and India, adding significant revenue growth to GSK’s consumer business. Other major Pharma players, such as Abbott Nutrition, which has leading nutrition brands including Similac, Ensure, Pedialyte, and ZonePerfect, are also likely to expand their consumer products portfolio.

With all this activity companies will need to be aware of the various regulatory bodies that monitor the healthcare marketplace, both in the U.S. and in Europe. Consumer package goods firms as well as pharmaceutical companies want to sell to the broadest markets possible – which means their products ideally need to remain prescription-free, finding shelf space in every grocery and retail store. This dynamic and rapidly emerging market provides an ideal backdrop against which to stress test Nestlé’s strategies through some alternative, plausible scenarios of the future.

Your team discussions today will build upon your identification of key drivers that will shape the evolution of this industry and the opportunities and challenges that Nestlé will have to anticipate in the pursuit of its 2020 ambition to expand its presence in this rapidly growing designer food industry. Your drivers and resulting scenarios will need to have a ten year horizon.

2.1 Objective

To use scenario analysis to define scenarios that describe the plausible boundaries of the functional foods market.

To identify the risks to Nestlé’s strategy from those scenarios and identify the contingencies Nestlé should therefore consider as it seeks to maximize its opportunities and mitigate its risks in the market.

The time horizon for the scenarios is ten years, so we will be looking out as far as 2020 for strategic implications that Nestlé needs to consider.
2.2 The Teams

Workshop attendees will work in small groups, and each will act as if it is the management team responsible for Nestlé’s functional foods marketplace strategy.

2.3 The Facilitators

Fuld & Company will facilitate the strategy game. Each team will have a facilitator. The facilitators will ensure that the scenario methodology is applied correctly and uniformly by the teams. The facilitators may also raise issues that might not otherwise have been considered by the various teams.

2.4 Methodology

Strategy helps us play the game under today’s rules. But the future is uncertain, and predicting it with any certainty is often an exercise in futility. Still, we have to understand what the future could look like in order to develop strategies and contingency plans that will be valid three, five or even ten years from now. Scenario analysis helps us answer the question, “What will the rules of the game be in 2015 or 2020?” The scenario analysis process defines the plausible boundaries of the future. Once we understand the plausible boundaries, we can focus on developing strategies and contingent strategies for an evolving market landscape.

The central concept of scenario analysis is that the future will be determined by a number of drivers – forces that are impactful, uncertain, causal, and relevant as agents of change. Often these forces come from currents in the broader ocean in which our organizations operate, an environment that goes beyond the immediate marketplace. The currents in that ocean are sometimes referred to as the PEST forces - the Political, Economic, Social and Technological forces that affect all industries.

For example, regulatory action may be pre-emptively taken as regulators become increasingly concerned about key societal public health issues. That regulatory force is quite unconnected to anything Nestlé or Danone may do in the ordinary course of business but may expand opportunities or constraint them. Thus the state of the regulatory framework could be a driver of the future business climate in which Nestlé operates.

No one driver determines what the future will look like. The drivers interact, and they interact in ways that have certain logic to them. Actions by any of the players toward embedding a drug into a food to create a functional food may trip regulatory alarm bells to be more restrictive. To understand these forces and how they will affect us we need to look outside our own organizations and outside our own industry or market.

A scenario analysis should highlight the strategic issues the firm will face in the future, no matter which way the industry evolves. It should also provide a clear set of external signals to monitor. A logical next step is to run a war game in which teams representing both the firm and key competitors develop strategies for each of the scenarios. The combined output gives executives a mechanism for putting manageable boundaries around what they need to do to defend against strategic risk – significant risk to the strategy that are external to the firm. In this workshop we will go through the steps of a scenario analysis together, and we will briefly explain how war games would fit into the task of managing risks that come from outside the company.
Scenario analysis in a business was pioneered by Shell in the 1970s. The history of scenario analysis is discussed in the Harvard Business School case “A Note on Scenario Planning” (HBS 9-306-003).

The complete scenario analysis process requires planning and execution by a small core team followed by two workshops involving the core team plus corporate leadership, and it takes three to four months to complete.

Figure 1: Scenario Analysis Process

We will compress the process into a five hour workshop in which you will be asked to:

1. Identify drivers – the impactful, uncertain, causal, and relevant agents of change that will affect the functional foods market for Nestlé’s products.

2. Decide which four drivers are the most important

3. Decide which combinations of those drivers represent plausible, challenging scenarios that define the plausible boundaries of the functional foods market

4. Take one of those scenarios, describe it in narrative form and explain its strategic implications for Nestlé
The full process will be explained in the classroom, and the facilitators will make sure each team can use the methodology.

The following material will give you the base of knowledge you need to understand the functional foods market and potential for companies like Nestlé, and a base of knowledge about Nestlé’s products, services and capabilities.
3. Market Overview: U.S. and Europe

3.1 Overview Introduction

For the purposes of this workshop, the terms “designer foods” and “functional foods” are interchangeable. Both describe foods that are fortified with nutritional ingredients to promote better health and/or reduce health risks. In Japan, the only country in the world with an established definition, functional foods are called Foods for Specified Health Use, or FOSHU – approved for maintaining or regulating specific health conditions, such as gastrointestinal health, blood pressure, and blood cholesterol levels. The U.S., Canada, and the European Union are in the process of drafting their own definitions. There is near universal agreement that functional foods are consumed as part of the normal diet, not in pill or capsule form, so dietary supplements are not included in the functional category. Nutritional/energy drinks can be viewed as part of the functional food industry, but they are not the subject of this game. Fortified infant formulas are also outside the scope, as are medical foods prescribed by a physician for an ill or recovering patient. The context of the workshop is the market for foods that can be widely marketed to consumers and provide specific health benefits based on new or emerging science.

In September 2010, when Nestlé announced plans to invest over half a billion dollars in the next decade towards creating a stand-alone health science business, the Swiss food giant said its intention was to “pioneer a new industry between food and pharma.”

In fact, the food industry has been eagerly cultivating the space between food and pharma for quite some time. Almost nine years ago, best-selling writer Michael Pollan (The Omnivore’s Dilemma) wrote a column called “The Futures of Food” for the New York Times Magazine (May 4, 2003) in which he described thumbing through the pages of a trade magazine for food scientists. “The first thing you notice when you look through it,” he wrote, “is that the word ‘food’ is about to be replaced by ‘food system.’….The other thing you notice is that those ‘food systems’ are rapidly merging with medical systems. The industry has evidently decided the future of food lies in so-called nutraceuticals and ‘functional foods’: nutritional products that claim to confer health benefits above and beyond those of ordinary foods.”

What Pollan was describing is now emerging as the next big trend in the global food industry: functional, or designer, food products engineered to provide specific health benefits or prevent specific disease conditions. Today, analysts estimate the U.S. market for functional foods to be the largest in the world, accounting for between 35% and 50% of global food sales. (Asia-Pacific is the second largest global market.) U.S. consumers are already spending between $20B and $30B a year on functional foods. And while today that represents only about 5% of the overall U.S. food market, growth in this market is projected to range anywhere from 8.5% to as much as 20% per year. Annual growth for the food industry overall is in the unappetizing single digits, between 1% and 4%.

Nestlé is hardly alone in targeting functional foods as the smart business move. In October 2010, PepsiCo announced plans to create a “global nutrition group” to “deliver breakthrough innovation” in fruit and vegetables, grains, dairy, and functional foods. The unit will allow the company to achieve its goal of tripling its sales, turning the current $10B company into a $30B nutrition business by 2020, according to chairman and CEO Indra Nooyi. “As we move more into nutrition, we have to think about products backed by science, and that is what we are focusing on,” Nooyi told analysts during the company’s Q3 earnings call.
Pollan, no doubt, views Nestlé’s and Pepsi’s announcements in a different context. As he wrote in 2003, “The growth of the American food industry will always bump up against a troublesome biological fact: try as we might, each of us can eat only about 1,500 pounds of food in a year....Unless agribusiness is content to limit its growth to the single-digit growth rate of the American population – something Wall Street would never abide – it needs to figure out ways to make us each spend more each year for the same three quarters of a ton of chow.”

According to a recent study by PricewaterhouseCoopers, the top 20 companies in the functional food business have about 70% of the U.S. market, with a small number of multinationals accounting for a significant share. Still, the study noted, smaller players are able to create niche markets – for example, Grupo Pascual produces milk drinks containing prebiotic fiber from chicory.

As food companies design foods to be even more functional, focused on addressing specific physical conditions and disease states, the boundary between foods and drugs has become more challenging to navigate. In the U.S., the Institute of Medicine (the health arm of the National Academy of Sciences) has already called for the Food and Drug Administration (FDA) to use “equal rigor in assessing food claims and drug approvals.” (According to current regulations, disease prevention claims cannot be made for food products unless they are framed as risk reduction claims that the FDA has approved under its pre-market clearance procedures for health claims.) However, voices from the business side urge caution. Peter Leighton, a principal at Natural Discoveries LLC, argued in *Nutrition Business Journal* (June 2010), “Consumer research shows that more than half of all U.S. households use foods or beverages to treat or manage specific health issues – and this behavior pattern carries with it potential health consequences....The reality is, however that functional foods are not medicine, and the nutrition industry has done a poor job marketing and communicating to consumers the limitations of our functional foods and beverages.”

### 3.2 What Makes Food Functional?

Nutritionists like to remind us that fruits and vegetables are the original functional foods, excellent sources of bioactive components like lycopene (tomatoes), ellagic acid (raspberries), lutein (kale), and sulforaphane (broccoli). There’s nothing new in any of this, they say. After all, Hippocrates was spreading this message more than 2,000 years ago when he wrote, “Our food should be our medicine. Our medicine should be our food.” Consumers clearly understand what Hippocrates was saying. In a 2006 survey by the International Food Information Council (IFIC), 85% of consumers agreed that certain foods have health benefits that may reduce the risk of chronic disease or other health concerns.

Stephen DeFelice, MD, founder and chairman of the Foundation for Innovation in Medicine (FIM), Cranford, NJ, took an early step in advancing the “food as medicine” concept in 1989 when he coined the term “nutraceuticals” from “nutrition” and “pharmaceutical.” DeFelice said, “A nutraceutical is any substance that is a food or a part of a food and provides medical or health benefits, including the prevention and treatment of disease.” In the U.S., nutraceuticals are considered part of the field of complementary and alternative medicine (CAM), a category that includes both dietary supplements and functional food.
In the U.S., oatmeal is considered the oldest nutraceutical in the book because it was the first food product to offer an explicit health claim on its label: lowering cholesterol and reducing the incidence of heart disease. Examples of nutraceutical categories currently sold in the U.S. include:

- Fortified cereals
- Vitamins and mineral supplements
- Other supplements (e.g., glucosamine, garlic)
- Energy drinks and tablets
- Cholesterol-reducing foods
- Probiotics (e.g., added to yogurt)

According to BCC Research, the nutraceuticals market has three principal segments: foods, supplements, and beverages. In 2007, foods were the largest, worth nearly $40B worldwide. It is expected to be worth $57B in 2013, CAGR of nearly 7%. Supplements have the second largest market share, generated $39B in 2007, and expected to reach nearly $49B in 2013, with CAGR of almost 4%. Beverages represent the fastest growing segment and are expected to have the largest share of the market by 2013. This segment was worth $38.4B in 2007 and is expected to increase to just over $71B in 2013 (CAGR 10.8%).

The American Dietetic Association (ADA), the largest organization of food and nutrition professionals in the U.S., sees several factors driving the current “food as medicine” paradigm:

- Increased consumer interest in managing their own health care and preventive care
- Epidemic of diet-related conditions: heart disease, diabetes, and obesity
- Growing focus on preventive care to counter escalating health care costs
- Changing demographics, notably the graying of the baby-boom generation
- Highly competitive food market with small profit margins
- Advances in technology, such as biotechnology and nutrigenomics
As a product category, however, functional foods remain the subject of debate. Today, the only country that recognizes functional foods as a distinct category is Japan, which is credited with developing the concept more than 20 years ago. In the late 1980s, the Japanese Ministry of Health and Welfare devised a regulatory framework for a category of foods that provides specific health benefits, clearly separating them from drugs. As a result, Japan has one of the most advanced functional food markets in the world. In the Japanese definition, Foods for Specified Health Use, or FOSHU, are composed of ingredients that affect the structure and/or function of the body and are used to maintain or regulate specific health conditions, such as gastrointestinal health, blood pressure, and blood cholesterol levels.

There is no corresponding framework in the U.S. or Europe on what defines a functional food. The ADA first published its position on functional foods in 1994 and has reaffirmed it three times (it remains in effect through the end of 2012). In the ADA’s view, “There is a difference between the Western and Eastern perspective on functional foods. In the West, functional foods are considered revolutionary and represent a rapidly growing segment of the food industry. Food and pharmaceutical companies alike are competing to bring functional foods into the mass market. On the other hand, functional foods have been a part of Eastern cultures for centuries. Foods were used for medicinal purposes in traditional Chinese medicine as early as 1000 B.C.E. From ancient times, the Chinese have used foods for both preventive and therapeutic health effects, a view that is now being increasingly recognized around the world.”

In the U.S., organizations like the American Diabetes Association (ADA), the International Food Information Council, and the Institute of Food Technologists all agree with the basic premise that functional foods – whether in their natural state or modified in some way – are defined by their ability to “provide a health benefit beyond basic nutrition.” And there is general agreement that functional foods range from fruits, vegetables, and whole grains, which are naturally high in phytochemicals, to products in which a specific ingredient is added, removed, increased, or decreased. Commonly cited examples of functional foods include soy, oats, flaxseed, grape juice, broccoli and other cruciferous vegetables, phytosterol/stanol-enriched margarine, and eggs enhanced with omega-3 fatty acids.

“Food as medicine” may be the emerging paradigm in the U.S., but industry analysts and researchers caution against taking the pharmaceutical analogy too far. The biggest challenge facing the functional food industry, in their opinion, will be assuring consumers of the safety and efficacy of functional foods that are already available, not designing a blockbuster product with some new component. Functional food research, they argue, should be focused on mechanisms by which food components such as phytochemicals affect health, and whether these components work independently or synergistically.

Pharmaceutical giant Pfizer provides an ironic case in point. The company recently acquired the consumer health care business of Danish firm Ferrosan for an undisclosed fee, saying the purchase “strengthens our presence in dietary supplements” and brings “a new set of compelling brands and product pipeline.” Pfizer is facing a precipitous drop in sales when its cash-cow cholesterol-lowering
drug, Lipitor, goes off patent this year. While Pfizer will certainly finance years of research and clinical trials to find a new blockbuster drug, the company sees the opportunity for a faster return on investment in the nutraceuticals market.

3.3 U.S. Market Primed by Diet-Related Diseases and Aging Population

As U.S. waistlines grow, along with the incidence of diet-related diseases like diabetes and heart disease, American consumers are a ready target for functional foods, especially the Baby Boomer generation born between 1946 and 1965. Nearly half of American consumers say they are actively managing their weight for appearance reasons, while one-third are say they do it for health reasons. Boomers, however, are significantly more likely than any other generation to be managing weight for health benefits (Nutraceuticals World, Sept. 1, 2009, “Business Insights: The Anti-Aging Market”). Boomers, whose oldest members are just turning 65, have both the time and money to focus on their health and wellness.

Overall, U.S. consumers are becoming more aware of what they are putting into their bodies. According to the most recent Health and Wellness Trends Survey by the Natural Marketing Institute (NMI), almost half of consumers (46%) indicate they look for foods and beverages with a short list of recognizable ingredients, and nearly two-thirds (64%) indicate they prefer foods that are “minimally processed.” As consumers become more knowledgeable about the health benefits of bioactive ingredients, they begin looking for products fortified with them. Consumer interest in simple, transparent, and nutritionally dense foods is driving demand for specific functional foods, foods that deliver – or are perceived to deliver – specific health advantages.

Older consumers put their focus on countering the effects of aging and disease prevention, while younger consumers are concerned about improving energy and performance. More boomers (57%) than any younger generation say they are very self-motivated about maintaining and improving their health. This self motivation is helping drive the functional food and beverage market.

According to current research, boomers are more likely to:

- Use functional/fortified foods to treat or manage health conditions
- Want their stores to carry foods with a specific health claim
- Want foods with less sugar and less sodium
- Want foods with fewer pesticides, preservatives, and hormones
- Want foods with more fiber, antioxidants, omega-3s, whole grains, vitamin D

3.4 Regulators Increase Oversight in the U.S. and Europe

In the U.S. and Europe, as functional food manufacturers step up promotion of their products’ health benefits, regulators are taking a more aggressive stance.

Nutraceuticals World editor Rebecca Wright noted in the January 2011 issue, “The industry is still in the unfortunate position of health claims limbo. In the U.S., agencies are taking a hard look at substantiation, with companies facing the potential of having to provide two good clinical trials to support product claims. In Europe, EFSA (European Food Safety Authority) is butchering the health claims system with its negative opinions. This means companies will likely pull back on claims and go for softer messaging, at least for now.”

Claims Rejected by the EU’s EFSA

- Apple cider vinegar can improve bowel function
- Green tea is good for blood pressure, cholesterol levels, bones, teeth, and eyesight, or that it works as an antioxidant
- Cranberry juice can reduce the risk of urinary tract infection in women
- Probiotic Lactobacillus plantarum supports the immune system
- Sugar-free chewing gum can reduce dental plaque
- Glucosamine can reduce the risk of osteoarthritis

Source: BBC, July 2010
In the U.S., functional foods are regulated by the FDA under the authority of two laws: the federal Food, Drug, and Cosmetic Act (FD&C) of 1938, which provides for the regulation of all foods and food additives; and the Dietary Supplement Health and Education Act of 1994, which amended the FD&C Act to cover dietary supplements and ingredients of dietary supplements. Labelling claims fall into two categories: 1) structure and function claims, which describe effects on normal functioning of the body, and 2) disease-risk reduction claims, which imply a relationship between dietary components and a disease or health condition.

Structure and function claims do not require pre-approval by the FDA, and they require much less stringent scientific consensus than disease-risk reduction claims. Disease-risk reduction claims, typically called health claims, do require FDA approval before they can be used in product labels and ads, and must reflect scientific consensus. For example, the health claim for soy protein and its relation to cardiovascular disease reads: “Diets low in saturated fat and cholesterol that include 25 grams of soy protein a day may reduce the risk of heart disease.” This claim may appear only on soy products that provide at least 6.25 grams of soy protein per serving. Other FDA-approved health claims include those related to fruits and vegetables and a reduced risk of cancer, saturated fat and an increased risk of heart disease, sodium and increased risk for hypertension, and folic acid-fortified foods and reduced risk of neural tube birth defects.

FDA regulations don’t stop food marketing from testing the limits of “scientific consensus.” At the height of the 2009 H1N1 pandemic, Kellogg’s sold boxes of Rice Krispies and Cocoa Krispies in the U.S. with labels claiming the cereals could “support your child’s immunity” because they contained antioxidants and nutrients. The company eventually bowed to FTC pressure to remove the claims. In August 2010, the U.S. FDA sent a warning letter to the makers of Canada Dry Sparkling Green Tea Ginger Ale for saying it has antioxidants from green tea and ginger ale. The FDA argued that the nutrients don’t have recognized antioxidant activity and, in any case, it’s inappropriate to fortify carbonated beverages or snack foods. The EU’s EFSA has already rejected several claims related to antioxidants, arguing that antioxidants have not been sufficiently characterized and their mechanism of action not well-enough understood.

Still, immunity remains one of the fastest growing markets for functional foods. In 2009, 72% of U.S. adults took a vitamin and/or other supplement to strengthen their ability to fight infection/illness – 61% a multivitamin, 41% an individual nutrient, and 16% a combination product (2009 Gallup Study of Nutrient Knowledge & Composition.) About half (52%) bought foods/drinks to boost their immune response, mostly those “naturally rich” in nutrients (46%) or fortified (32%). Sales of vitamin C supplements jumped 8% to $970M in 2009, while Echinacea increased 7% to $130M, according to Nutrition Business Journal.
Worldwide, products for digestive health are viewed as the biggest segment of the functional foods market, along with energy drinks. In a recent survey of consumers and their perspectives on health in 32 countries around the world, research group Health Focus found that digestive health ranks among consumers’ top-four health concerns. According to analysts, digestive health seems to offer the most potential for growth, driven by technological advances in both probiotics and fiber, and by consumer demand.

As demand for immunity-enhancing foods increases, so has scrutiny from FTC and the FDA, resulting in multimillion dollar fines. Airborne settled a lawsuit for more than $23M, CVS paid nearly $3M in refunds for misleading claims for AirShield, and the FDA warned more than 75 websites to stop selling 135 products using fraudulent H1N1 claims.

The EFSA has also become increasingly critical of the health claims made by food companies and is asking food producers to submit their claims to scientific scrutiny. The EFSA operates under the EU’s Nutrition and Health Claims Regulation, which was adopted in 2006 “to ensure that consumers are not misled by unsubstantiated, exaggerated, or untruthful claims about foodstuffs.” The regulation is “only now beginning to bite,” according to a July 2010 report by the BBC. Of around 900 functional food health claims so far examined, the EFSA has rejected a “massive 80%...leaving many health food manufacturers with a very bad case of indigestion,” the BBC reported.

Amid the new regulatory scrutiny in Europe, Danone has twice withdrawn health-claim applications for its Activia and Actimel yogurt-based products, which it had claimed aid digestion. In the U.S., regulators have asked Nestlé to drop advertising claims about alleged health benefits in its Boost Kid Essentials drink.

As food companies move beyond general health claims and move toward more serious medical conditions, they “will have to overcome a number of obstacles, from tighter health-claim regulations to consumer education, and require substantially high investments,” said Euromonitor analyst Ildiko Szalai.

Not content to wait for regulatory consensus, consumers continue to choose what they believe to be “proven” functional products for boosting immunity. According to Gallup, more than eight in 10 adults (85%) look for a specific ingredient: 67% vitamin C, 46% whole grains, 39% fiber, 37% superfruits, 35% omega-3s, 25% herbal ingredients, and 24% probiotics.

Julian Mellentin, editor of *Nutrition Business Journal* and an expert in the marketing of functional foods to consumers, expects tougher health claims regulation to make things much harder for companies operating in some areas. “The word ‘antioxidants,’ for example, will disappear from the European market,” he wrote in a September 2010 journal article. “One of the biggest marketing advantages a product can have – and the surest way to create loyalty for a brand – is to deliver a benefit that the consumer can quickly see or feel,” Mellentin wrote. To illustrate his point, Mellentin compared Danone’s Activia probiotic yogurt with healthful but non-functional fruit smoothies from Innocent Drinks, a brand that is majority-owned by Coca-Cola Co. Activia, which sells at a 25% premium to supermarket private-label alternatives, saw sales rise by one-third in 2009, Mellentin

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**What’s the Difference? Lovaza vs. Fish Oil**

What makes one natural health solution a dietary supplement while another is classified as a drug?

Take, for example, Lovaza, GSK’s new blockbuster omega-3 prescription for high triglycerides. It’s just fish oil, right? Not according to GSK. They go to great lengths to point out that “you can’t get it at a health food store” and that it’s “the only omega-3 medication that’s FDA-approved.” Notice the use of the term *medication*. Of course it’s the only omega-3 medication that’s FDA-approved. All other omega-3 supplements are... *supplements*.

So if Lovaza is a medicine, where does that put the supplement you’ve been taking? Is that medicine too? Or does a natural product become medicine only when subjected to intense scientific manipulation that qualifies it for patent protection, thereby making it worthwhile for a drug company to spend millions on clinical research and political maneuvering to obtain FDA approval?

It appears that with the growth of natural health options, the positive results of clinical research on health and nutrition supplements and the increasing amount of investment in such studies, Big Pharma may be slowly reversing their course of attack and adopting an ‘if you can’t beat ‘em, join ‘em’ approach.

Source: www.healthblog.swansonvitamins.com, Sept. 2, 2010
said. Innocent Drinks smoothies – also a premium-priced brand – saw sales fall by a third during this same period.

“Innocent’s decline is a symptom of failing to justify the price in the minds of consumers,” said Mellentin. “For all its great branding and skillful communications, it doesn’t offer a benefit you can feel. Sales of Activia continue to roar ahead because the product actually delivers a tangible benefit.”

Activia may deliver a benefit people can feel, but that didn’t satisfy the U.S. Federal Trade Commission. On December 15, 2010, Dannon, the U.S. unit of the French food giant, agreed to pay $21M to settle state and federal investigations into allegations that the company’s claims for the health benefits of foods containing probiotics were exaggerated, or not properly supported. According to the FTC, the company will drop claims that probiotics – bacterial cultures that are ingredients in Activia and other products – will help prevent colds or alleviate digestive problems.

The FTC’s action is a clear signal of regulatory trouble ahead for food and beverage companies seeking to capitalize on growing demand for products containing certain strains of live bacteria. According to a recent Wall Street Journal report, the total probiotics market in the U.S. has grown almost 9% over the past five years to about $5B a year. About 120 foods and beverages were introduced globally over the last year that included probiotics, according to market-research firm Datamonitor, bringing the total number to more than 400.

“The FTC is sending clear warnings that it will not tolerate unsubstantiated health claims and that it is going to require high-quality science as a basis for substantiation. Public beliefs have nothing to do with science, as food marketers know well,” said Marion Nestle, food critic and professor of nutrition, food studies, and public health at New York University. Nestle is not associated with the company Nestlé. While the FTC may be sending clear warnings, it doesn’t have the resources to review every new functional food claim.

Lawyers, however, often see the supplements and functional food industries as fair targets for consumer class action suits based on misleading health claims. “There’s been a wildness mentality about claims that are being made,” explained Denver-based attorney James Prochnow, in an interview with Nutrition Business Journal (June 2010). Prochnow, who focuses on food and drug law as well as advertising law, cites the 2008 Danone case in which consumers in California sued the company over claims it made on its Activia and DanActive lines of probiotic yogurts. “The plaintiffs thought Danone was making exaggerated claims toward probiotics, [that the company] didn’t have any support for how many bacteria were in the probiotics, and how many could actually survive to be absorbed,” Prochnow said. “You need to have competent and reliable scientific evidence for every health-related claim you make in the advertising or the labelling of your product. The plaintiffs said, "We know you don’t have evidence of many, many specific probiotic claims." Nearly two years later, Danone settled the class-action suit out of court for $35M.

**Class-Action Suits: Penalties for Misleading Claims**

“**You need to have competent and reliable scientific evidence for every health-related claim you make in the advertising or the labeling of your product.**”

Attorney James Prochnow, Denver-based attorney practicing food and drug law, June 2010
3.5 Who Will Win the Functional Food Fight?

Food giants Nestlé and Danone seem to be well-positioned to dominate the functional food industry. With the recent announcement of its new stand-alone health science unit, Nestlé is taking steps to leverage its existing multibillion dollar nutrition business, which includes such brands as Gerber, PowerBar, and Jenny Craig. Similarly, over the last decade Danone has refocused its portfolio on nutrition, including its $17B purchase of Royal Numico, a leader in infant and clinical nutrition products. This deal, along with its blockbuster Activia probiotic yogurt, makes Danone a formidable player in health and nutrition.

But pharma companies, looking for growth opportunities as drug patents expire, may be better equipped to compete in this market as the balance tips towards greater regulation, which could require time-consuming and expensive clinical trials. A major pharma player, Abbott Nutrition has a portfolio of leading nutrition brands, including Similac, Ensure, Pedialyte, and ZonePerfect. Analysts believe the company is likely to expand its consumer products portfolio. GSK Consumer Healthcare, already a leader in vitamins and other nutritional supplements, has successfully launched several of its nutritional beverage products, including Lucozade and Horlicks, in China and India, adding significant revenue growth to GSK’s consumer business.

Some analysts argue that neither industry – food or pharma – has a huge advantage over the other for nutraceuticals. Several expect to see shared investments, perhaps in specific functional food categories, between the food and pharma industries. To support their view, they point to Swiss pharmaceutical giant Novartis’ new CEO, Joe Jimenez, who has many years of experience at consumer goods companies, including Heinz. One of Jimenez’s aims in his new role, according to an analyst writing on seekingalpha.com (Oct. 19, 2010), is “to improve marketing, streamline distribution, and squeeze costs, just as he would if Novartis were in his previous businesses. If the two industries continue to cross-pollinate in such a way, each can learn a lot from the other.”

Other analysts side with John Tucker, a biomedical technology consultant who posted this response to the cross-pollination scenario: “The line that separates these two industries is the regulatory pathway that must be followed for products that claim to treat or prevent a specific disease. The pharmaceutical industry has thrived on one side of this line, specializing in getting products through a rigorous regulatory pathway and marketing to a relatively small number of gatekeepers (MDs). The nutraceuticals industry has thrived on the other side of the line, where the key core competency is consumer marketing. The food industry shares this core competency.”

Growth Opportunities for Functional Foods in the North American Market

- 8 out of 10 U.S. consumers plan to save on medical expenses by trying to stay healthy; 1 in 3 have cut back on MD visits in an effort to self-treat; 1 in 4 are replacing Rx meds with OTC options (IRISymphony, 2010).
- Americans average 1 billion colds per year, with 17% suffering from a virus/flu (Global Industry Analysts, 2010). To treat their colds, 45% said they used a fortified food/drink, 27% a supplement, and 27% an alternative remedy, compared to 41% who used an Rx drug and 34% an OTC (HealthFocus, 2009).
- 6 in 10 (60%) consumers want more immune-boosting foods/drinks (Mintel, 2009). Vitamins, whole grains, fiber, and superfruits top the list of ingredients consumers associate with immunity. Young adults aged 18-24 and those 55+ are the most concerned about immunity (Mintel, 2009).
- Superfruits like acai, pomegranates, blueberries, and cranberries represent another strong food-based immunity platform. In 2009, 45% of consumers drank orange juice to boost immunity, 34% ate yogurt, 32% cereal, 28% soup, 19% enhanced water, and 9% nutrition bars (Gallup).

Source: Dr. A. Elizabeth Sloan, president of Sloan Trends, Nutraceuticals World, October 2010
4. Nestlé S.A. Company Profile

4.1 Summary

Nestlé is the world’s largest food and beverage company by sales. Nestlé has a strong portfolio brands that are global leaders in their respective markets. The company also has a diverse brand portfolio, which allows it to address varied age groups and customer segments. In 2009, the company was ranked 25 among the top 100 best global brands, according to Interbrand, a brand management company.

In September 2010, Nestlé made headlines in at least three industries (food, pharma, and medicine) when it announced that would create a Nestlé Health Science subsidiary and invest 500M CHF ($534M) over 10 years in a sister research institute to focus on the development of “personalized health science nutrition.” According to Nestlé, this emerging field holds the promise of preventing and treating chronic health conditions such as diabetes, obesity, cardiovascular disease, and Alzheimer’s disease. The institute will be based in Lausanne, joining the multi-disciplinary scientific environment of the Swiss Federal Institute of Technology (EPFL), where Nestlé is already involved in two life science initiatives.

Luis Cantarell, the Nestlé executive VP tapped to lead the new subsidiary, said at the Sept. 27, 2010 announcement, “Over the next five years, we will build a leading ‘health science nutrition’ product portfolio and pipeline. How? The new Nestlé Institute of Health Sciences will enable a quantum leap in our understanding of the mechanisms behind these chronic medical conditions.”

In its report on the announcement, the Wall Street Journal observed that the move also positions Nestlé to make a “quantum leap” in a sector that it has been trying to crack at least since the late 1980s. Several analysts also saw Nestlé’s move into medical nutrition as a direct challenge to Abbott Laboratories, which has steadily increased its presence outside the pharmaceutical market.

Nestlé’s new Health Science subsidiary, which began operating on January 1, 2011, will remain at arm’s length from Nestlé’s main food, beverages, and nutrition activities, the company said. So far, much of Nestlé Health Science is made up of the medical-nutrition business acquired from Novartis AG for $2.5B in 2007. With the assets of Novartis Medical Nutrition, Nestlé launched its own HealthCare Nutrition business, which had revenue of 1.6B CHF ($1.65B) in 2009 from product sales to hospitals, long-term-care institutions, home-care services, and pharmacies. Based on the success of this foundation-building business, Nestlé already has strong relationships with health care professionals and key opinion leaders.

In ten years, Cantarell predicts, Nestlé “will be the undisputed leader in this new ‘health science nutrition’ business. We will have the science, the reputation, the products, the people, and the distribution necessary to be the leader. I am convinced this is a massive opportunity to create

<table>
<thead>
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<th>SIX Exchange</th>
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<td>Nutrition Rev (FY10)</td>
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<td>Total Employees</td>
<td>283,000</td>
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</tbody>
</table>

Over the next two years, Nestlé plans to build a leading “health science nutrition” organization and by 2020 become the global leader in the field.

Source: Nestle.com
shared value, both for Nestlé and for society, by successfully preventing, improving, and treating acute and chronic medical conditions.”

In a Dec. 19, 2010 interview with the Wall Street Journal, Nestlé CEO Paul Bulcke, emphasized the significance of this new venture to the company. “This has huge potential. It is going to be multi-billion,” said Bulcke in a wide-ranging interview that ran under the headline: “Nestlé chief looks to science to make healthier profits.”

Nestlé, which has been closing in on this opportunity for several decades now, may finally have the right plan: a separate company “armed with sufficient investment, talent, and regulatory know-how,” as one analyst noted. Given Nestlé’s ambitions, that last item – regulatory know-how – will be key. While the market for “medical food” products holds huge promise, food companies face a very challenging regulatory environment as a result of deceptive or overblown health claims they’ve made in the past. In July 2010, for example, an FTC complaint led Nestlé to drop a claim that its Boost Kid Essentials milk-shake drinks protected children’s immune systems. “With many of these food companies, the claims of managing illness, preventing illness, boosting immunity, boosting immune function – all of those things – are very difficult to prove using the standards that the FDA or similar agencies would use to judge safety and efficacy,” said Michael Starnbach, professor of microbiology and molecular genetics at Harvard Medical School. The new chief of Nestlé Health Science, Luis Cantarell, takes the point. “If there’s one important thing in anything that we’re doing,” he says, “it’s scientific credibility.”

Before Jan. 1, 2011, Nestlé already claimed that, with its Nutrition division, it was “the world leader in specialized nutrition and the only nutrition company that operates in four major nutrition segments: Infant, Health Care, Performance Nutrition, and Weight Management.” Together, the division’s four business segments have a portfolio of over 30 major brands sold worldwide. At the year’s end, Dec. 31, 2010, the Nestlé Nutrition division had 20,000 employees and sales of CHF 10.4B in four business areas:

- **Infant Nutrition**, the biggest Nutrition division, had a very positive year, particularly in infant formula and infant cereals. The division’s three biggest brands, Gerber, Cerelac, and Nestlé Nan (a hypoallergenic infant formula), all had double-digit growth.

- **Health Care Nutrition**, the medical-nutrition business Nestlé acquired from Novartis AG for $2.5B in 2007, markets nutrition solutions for disease management and recovery. Key brands include Boost, Clinutren, Nutren Junior, OptiFast, and Resource. The acquisition increased Nestlé’s share of the highly profitable and fast-growing nutritional foods market, boosting its sales by about 20%. The deal also brought the Boost brand, allowing Nestlé to compete with Abbott’s Ensure. Effective Jan 1, 2011, Nestlé separated this unit from the Nestlé Nutrition and made it the foundation of the new Nestlé Health Science subsidiary.

- **Performance Nutrition** includes the PowerBar brand, which Nestlé bought in 2000 from founder Brian Maxwell, an elite marathon runner who began making PowerBars in his kitchen in 1986.

- **Jenny Craig**, Nestlé’s weight management business, outperformed its market in 2010, which remained subdued by the tough economic environment in the U.S. According to Nestlé, growth...
in Jenny Craig At Home (the home-delivery business) compensated for the lower number of visitors to Jenny Craig Centers. Nestlé purchased Jenny Craig, Inc. in 2006 for $600M.

4.2 Research and Development

Nestlé invests CHF2B ($1.85B) in R&D annually. According to Datamonitor (Aug. 12, 2010), around 5,200 people work in food and beverage development and product testing centers. Nestlé also maintains around 300 external R&D relationships. The company organizes its R&D around three core functions: Product Technology Centers (PTCs), R&D Centers, and Application Groups. The PTCs are aligned with particular Nestlé businesses to provide expertise for specific product categories, forming a hub for global product and process development. The R&D Centers work with the PTCs to meet regional requirements and localize products as per consumer preferences. The Application Groups are located in Nestlé factories and ensure that products comply with local taste preferences.

Nestlé’s R&D activities are focused on renewing its portfolio at regular intervals – bringing innovative products in the market on a continuous basis and boosting revenue growth. In 2009, according to GlobalData research (Jan. 5, 2011), the company renovated 7,252 products for nutrition or health considerations. In 2009, the company generated 36% of its sales from new products that were launched between 2007 and 2009.

Nestlé Reports Strong 2010 Results

“In 2010, we delivered another year of strong top and bottom line growth, outperforming the market. We increased investment in our brands, our operations, and our people. We continued to drive efficiency and effectiveness in both developed and emerging markets while at the same time accelerating innovation, serving well over a billion consumers a day across the world. We are starting 2011 with continued momentum, well placed to face uncertainties ahead, including volatile raw material prices. We are therefore confident of achieving the Nestlé Model in 2011: organic growth between 5% and 6% and an EBIT margin improvement in constant currencies.”

– Paul Bulcke, Nestlé CEO, announcing FY2010 results on Feb. 17, 2011

4.3 Sales and Marketing

Apart from the Nestlé brand, the company also nurtures other strong brands across diverse product categories. According to Datamonitor research (Aug. 12, 2010), the company’s top 30 brands earn around CHF 80.7B ($74.5B) in annual sales, contributing approximately 75% of total sales.

One of Nestlé key strengths is its ability to customize global products according to consumer preferences in the local market. Nestlé subsidiaries are responsible for understanding consumer preferences in the local market and develop products that match them. For instance, its confectionery range sold in the U.K. is called Rolo, while it is known as Rossyia in Russia. The company’s coffee brand, Nescafe, comes in many variations adapted to local tastes and preferences. Customized products with the same underlying international quality standards ensure continued customer loyalty towards the brand and the company.
4.4 Acquisitions and Partnerships

Nestlé has numerous joint ventures with global leaders in other markets. The company holds 26.4% of the shares of cosmetics leader L’Oréal. The two have entered into a joint venture in nutritional cosmetics called Laboratoires Inneov and a joint venture in dermatology called Galderma. Other joint ventures include Cereal Partners Worldwide with General Mills, Beverage Partners Worldwide with Coca-Cola, and Dairy Partners Americas with Fonterra.

Nestlé has made numerous acquisitions over the years, including several recent deals for clinical nutrition products.

CM&D Pharma – On Feb. 2, 2011, Nestlé acquired U.K.-based CM&D Pharma, a “medical food” start-up testing a chewing gum to help kidney-disease sufferers. The deal was the first for the company’s new subsidiary, Nestlé Health Science SA. Terms of the deal were not disclosed. CM&D was started in 2007 by former Sinclair Pharma executive Danilo Massari and has yet to fully launch any products, although it has a number of medical foods in trials. The company’s Fostrap gum, whose active ingredient is a substance derived from crustacean exoskeletons, is designed to bind to phosphate in the saliva of people with kidney malfunction, helping to reduce the build-up in the patient’s system. While the gum won’t require FDA approval, for marketing purposes the company wants to have clinical proof that it works, said CM&D CEO Stephen Appelbee. An initial pilot test of Fostrap was done on 13 patients in Italy, with results published in the Journal of the American Society of Nephrology. Now, results from double-blind, placebo-controlled studies with over 60 patients in Japan and 120 patients in the U.S. are being analyzed. Other products in clinical trial at CM&D include Eviendep, a mix made from an extract of milk thistle and dietary fiber to slow the progression of colon polyps, and Recoclix, a medical food to relieve pain associated with Crohn’s disease and inflammatory bowel disease.

Vitaflgo – In August 2010, Nestlé acquired Vitaflgo, a U.K.-based global provider of clinical nutritional products that posted growth of about 30% over the past three years. This strategic acquisition would allow Nestlé to enter the fast-growing global market for clinical nutrition products that are tailored for people with inherited metabolic disorders. The market is ready to expand rapidly as improved diagnosis and screening allows more cases to be detected, analysts say. Vitaflgo’s products are designed for children and adults with genetic disorders that impact on the body’s ability to process food, including phenylketonuria (PKU), maple syrup urine disease (MSUD), and homocystinuria (HCU).

Novartis Medical Nutrition – This acquisition, completed in July 2007, launched Nestlé into the health care nutrition business and boosted it to a strong number-two position globally in the health care nutrition market. Reports at the time said the deal raised Nestlé’s share in the $6B global oral medical nutrition market from 7% to 25%, putting it just behind Abbott Laboratories, the U.S. market leader, which had 30%. Approximately 2,000 employees of Novartis Medical Nutrition, with their specific know-how and expertise, joined the Nestlé Group.

BLIS Technologies – In March 2007, Nestlé Nutrition signed an agreement with New Zealand-based BLIS Technologies to investigate the use of probiotics to combat upper respiratory tract infections in infants. Although probiotics have been used by infant formula makers for some time, most strains have addressed general immunity or gastrointestinal health. BLIS takes its name from Bacteriocin-Like Inhibitory Substances, (one example: Salivaricin B, an antibacterial protein produced by the probiotic strain Streptococcus salivarius K12). Nestlé has committed to funding BLIS’s development of suitable probiotics though a series of milestone and R&D expense payments. For its part, Nestlé will be responsible for the clinical studies (for which BLIS will supply the probiotics) and will commercialize the products under its license as part of its infant nutrition activities. The probiotic ingredient BLIS K12™ is distributed and marketed worldwide through a global marketing and distribution agreement with the international ingredient supplier, Frutarom USA.
4.5  Key Management

Peter Brabeck-Letmathe, Chairman, Nestlé S.A.
Brabeck-Letmathe, 67, was elected chairman of the board in 2005. Appointed CEO in 1997, he handed that title over Paul Bulcke in 2008. Previously, Brabeck-Letmathe was executive vice president of Nestlé S.A. with worldwide leadership of strategic business groups as well as responsibility for Marketing, Communications, and Public Affairs. In this role, he devised and implemented Nestlé’s brand strategy, consisting of a clear hierarchy of strategic brands on the global, regional, and local level. Prior to that, he was senior vice president in charge of the Culinary Products Division, with a worldwide responsibility for that sector. He also held CEO roles in Nestlé Venezuela and Nestlé Ecuador. He joined the Nestlé Group’s operating company in Austria as a salesman in 1968. Brabeck-Letmathe serves on several corporate boards: vice chairman of L’Oréal, vice chairman of Credit Suisse Group, and board member of Exxon.

Paul Bulcke, Nestlé Chief Executive Officer, Nestlé S.A.
Bulcke, 57, became CEO in 2008. He joined the company in 1979 as a marketing trainee and rose through the corporate ranks, taking on marketing roles with increasing responsibility. His previous position, from 2004-2008, was executive vice president, Nestlé S.A. zone director for Zone Americas, which includes U.S., Canada, Latin America, and the Caribbean. He is a board member and co-chair of the Governance Committee of the Consumer Goods Forum and co-chair of the Supervisory Board, Cereal Partners Worldwide.

Luis Cantarell, President and Chief Executive Officer, Nestlé Health Science S.A.
Luis Cantarell, 59, is the first president and CEO of Nestlé Health Science S.A., a wholly owned subsidiary of Nestlé S.A., which became operational Jan. 1, 2011. Since September 2008, Luis Cantarell has been executive vice president of Nestlé S.A., responsible for the Zone of the Americas. Prior to that, from 2005, he was heading Nestlé’s Zone Europe as executive vice president. Between 2001 and 2005 Luis Cantarell was senior vice president in charge of the Group’s Nutrition Strategic Business Division, a business he was instrumental in creating, and its first head. He took a central role in shaping Nestlé’s nutrition, health, and wellness vision, and in 2002 became the first co-chairman of Nestlé’s joint venture with L’Oréal in the field of nutri-cosmetics. He joined Nestlé Spain in 1996, where he ran the Coffee, Culinary and Food Services Division and was a member of the Nestlé Spain Management Committee.

Emmanuel E. Baetge, Head of Nestlé Institute of Health Sciences
Baetge is first to lead Nestlé’s newly formed health sciences institute. He reports to Nestlé Chief Technology Officer Werner Bauer and a Steering Committee composed of Nestlé and external members. Previously, he was chief scientific officer of ViaCyte, a biotech company based in San Diego, where he was one of the world’s leading scientists researching the use of stem cells to cure Type I diabetes. He has an international reputation in the fields of neuroscience, gene therapy and metabolic diseases. He joined ViaCyte, formerly known as Cythera/Novocell, in May 2001. In that time he has built a scientific and patent portfolio from the ground up, creating the foremost stem cell therapy company in diabetes. Previously, Baetge was chief scientific officer at Modex Therapeutics in Lausanne, where he worked between 1997 and 2001. Modex developed a personalized adult stem cell therapy product for the treatment of chronic ulcers. Baetge has also held management positions at CytoTherapeutics (1992-1997) and Bristol-Myers Squibb (1987-1992). He holds a Ph.D. in molecular neurobiology from Cornell University, where he also did postdoctoral work.

Nandu Nandkishore, Deputy Executive Vice President and Head of Nestlé Nutrition
Nandkishore, 53, assumed his current role in October 2010. He joined Nestlé India in 1989 and assumed increasing responsibilities in marketing. From 2005 to 2009, he was global business head of Infant Nutrition. Previously, he led marketing groups in the Philippines, Indonesia, and at Nestlé headquarters in Vevey.
4.6 Selected Financial Data

Nestlé 2010 Full-Year Sales and Annual Growth

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Food and Beverages</td>
<td>34,301</td>
<td>5.9</td>
</tr>
<tr>
<td>- Zone Americas</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Zone Europe</td>
<td>21,580</td>
<td>2.5</td>
</tr>
<tr>
<td>- Zone Asia, Oceania, Africa</td>
<td>17,409</td>
<td>8.7</td>
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<tr>
<td>Nestlé Waters</td>
<td>9,095</td>
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<tr>
<td>Nestlé Nutrition</td>
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</tr>
<tr>
<td>Other Food &amp; Beverages</td>
<td>10,971</td>
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<tr>
<td>Nestlé Food and Beverages</td>
<td>103,722</td>
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<tr>
<td>Pharma (incl. Alcon)</td>
<td>6,000</td>
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</tr>
<tr>
<td>Total Group</td>
<td>109,722</td>
<td>6.2</td>
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<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>Powdered and liquid beverages</td>
<td>20,612</td>
<td>8.5</td>
</tr>
<tr>
<td>Water</td>
<td>9,101</td>
<td>4.5</td>
</tr>
<tr>
<td>Milk products and ice cream</td>
<td>20,360</td>
<td>6.6</td>
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<tr>
<td>Nutrition</td>
<td>10,368</td>
<td>6.7</td>
</tr>
<tr>
<td>Prepared dishes and cooking aids</td>
<td>10,093</td>
<td>2.6</td>
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<tr>
<td>Confectionery</td>
<td>12,097</td>
<td>7.0</td>
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<tr>
<td>PetCare</td>
<td>13,091</td>
<td>4.9</td>
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<tr>
<td>Pharmaceutical products (incl. Alcon)</td>
<td>6,000</td>
<td>10.8</td>
</tr>
<tr>
<td>Total Group</td>
<td>109,722</td>
<td>6.2</td>
</tr>
</tbody>
</table>

Source: Nestle.com, Feb. 17, 2011

Nestlé Waters, Nestlé Nutrition, and Other Food & Beverages (including Nestlé Professional) are not included in the Zones. The slight difference in the figures for water and nutrition between the “Sales by operating segment” and “Sales by product” tables is due to the fact that some water and nutrition products are also sold by operating segments other than Nestlé Waters and Nestlé Nutrition.
### 2010/2009 Revenue Comparison by Product

#### 2009

*In millions of CHF*

<table>
<thead>
<tr>
<th>Product and Use Area</th>
<th>Beverages</th>
<th>Water</th>
<th>Milk products and ice cream</th>
<th>Nutrition</th>
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<tbody>
<tr>
<td>Sales</td>
<td>19,271</td>
<td>9,966</td>
<td>19,567</td>
<td>9,965</td>
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<td>EBIT Earnings Before Interest, Taxes, restructuring and Impairments</td>
<td>4,185</td>
<td>633</td>
<td>2,345</td>
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<tr>
<td>Impairment of assets</td>
<td>(8)</td>
<td>(97)</td>
<td>(59)</td>
<td>(5)</td>
</tr>
<tr>
<td>Restructuring costs</td>
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<td>(23)</td>
<td>(22)</td>
<td>(30)</td>
</tr>
<tr>
<td>Net other Income/(expenses) excluding restructuring and impairments</td>
<td>(44)</td>
<td>(83)</td>
<td>(69)</td>
<td>(35)</td>
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<tr>
<td>Profit before taxes and associates</td>
<td>8,861</td>
<td>2,652</td>
<td>13,269</td>
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<tr>
<td>of which goodwill and intangible assets</td>
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<td>2,226</td>
<td>4,619</td>
<td>9,790</td>
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<td>Losses</td>
<td>3,446</td>
<td>1,940</td>
<td>3,544</td>
<td>2,755</td>
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#### 2010

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<th>Milk products and ice cream</th>
<th>Nutrition</th>
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<tr>
<td>Sales</td>
<td>20,612</td>
<td>9,101</td>
<td>20,069</td>
<td>10,366</td>
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<tr>
<td>EBIT Earnings Before Interest, Taxes, restructuring and Impairments</td>
<td>4,569</td>
<td>670</td>
<td>2,623</td>
<td>1,974</td>
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<tr>
<td>Impairment of assets</td>
<td>(9)</td>
<td>(235)</td>
<td>(29)</td>
<td>(145)</td>
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<tr>
<td>Restructuring costs</td>
<td>(44)</td>
<td>(83)</td>
<td>(69)</td>
<td>(35)</td>
</tr>
<tr>
<td>Net other Income/(expenses) excluding restructuring and impairments</td>
<td>(44)</td>
<td>(83)</td>
<td>(69)</td>
<td>(35)</td>
</tr>
<tr>
<td>Profit before taxes and associates</td>
<td>9,219</td>
<td>7,477</td>
<td>13,333</td>
<td>18,946</td>
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<tr>
<td>of which goodwill and intangible assets</td>
<td>432</td>
<td>1,959</td>
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<tr>
<td>Losses</td>
<td>3,663</td>
<td>1,834</td>
<td>3,486</td>
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### Revenue Comparison by Top Ten Countries and Switzerland

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<th>Country</th>
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Source: Nestle.com, Feb. 17, 2011
Building a Healthcare Nutrition Portfolio and Pipeline
Disease Focus: The Metabolic Syndrome

Focus on the most common complex disorder, that accounts for the greatest mortality and morbidity worldwide

- Obesity (1 billion WW overweight)
- Diabetes (246 million WW)
- Cardiovascular disease
  - Atherosclerosis & Ischemic heart disease
  - Hypertension, Heart failure & Cardiomyopathy
- Chronic inflammation
  - Inflammatory bowel disease
  - Arthritis – Articular degeneration
  - Asthma – COPD

We will create:

- Molecular and cellular models for important disease related pathways
- In vitro and in vivo screens useful to predict beneficial nutritional intervention
- Enhanced understanding of human disease and aging in relation to genetics, environment and life style
- A new paradigm centred on personalised daily nourishment as the most important first step in disease prevention and treatment

Translating disease focused biomedical research into personalised health science nutrition
Appendix

Glossary of Terms

**Functional food** – The term “functional food” is commonly used in the marketplace to describe food products that provide health benefits beyond basic nutrition. The Food and Nutrition Board of the National Academy of Sciences has described a functional food as “any modified food or food ingredient that may provide a health benefit beyond that of the traditional nutrients it contains.” Such foods are regulated by FDA under the authority of the Federal Food Drug and Cosmetic Act, even though they are not specifically defined by law. Functional food derived from modern biotechnology is subject to the same FDA safety framework as other food, meaning that such products similarly must contain only components that are GRAS (see below). If a functional food product is marketed in the U.S. for a therapeutic purpose (e.g., to treat a disease), it will be subject to regulation as a “drug.” If a product is marketed as a “food,” it may be further classified as a conventional food, dietary supplement, food for special dietary use (including infant formula), or medical food – depending upon its intended use and other factors.

**GRAS** – The acronym for Generally Recognized as Safe, as defined under Federal Food, Drug, and Cosmetic Act. Any substance that is intentionally added to food is a food additive and is subject to pre-market review and approval by FDA, unless the substance is generally recognized, among qualified experts, as having been adequately shown to be safe under the conditions of its intended use.

**Health claim** – Conventional food is permitted to bear statements regarding the relationship between a food and disease only if such statements are an FDA-authorized “health claim.” The FDA may authorize health claims by issuing a health claim regulation, or by accepting a health claim “notification” based upon the authority of a scientific body. To date, FDA has approved 12 health claims by regulation and authorized additional claims through the statutory notification process. Food/health relationships currently approved by the FDA include:

- Calcium and osteoporosis
- Dietary lipids and cancer
- Sodium and hypertension
- Dietary saturated fat and cholesterol and coronary heart disease
- Fiber-containing grain products, fruits, and vegetables and cancer
- Folate and neural tube defects
- Soy protein and coronary heart disease
- Plant sterol/stanol esters and coronary heart disease
- Whole grains and coronary heart disease and cancer

If a statement does not identify both a specific food or substance and a disease or health-related condition, it is not a health claim. For example, the statement “5-a-Day for Better Health” as applied to fruits and vegetables is not a health claim because it does not reference a specific disease or health-related condition; the statement “diets rich in fruits and vegetables may reduce the risk of cancer” is not a health claim because it does not reference a specific food. FDA considers such claims to be in the nature of general dietary guidance, not health claims.

**Intended use** – The labelling claims made for a food product, instructions for use, advertising, and other materials determine the product’s classification as “food” or “drug.” Through labelling claims, manufacturers may exercise substantial control over “intended use.” The “food” and “drug” categories are not mutually exclusive: a product that appears to be a “food” but is promoted for therapeutic purposes can be regulated as a drug. However, because food affects bodily structures and functions through nutrition, a food product is not subject to regulation as a drug merely because it bears a structure/function claim (e.g., “Calcium builds strong bones”). The line between “disease claims” that render a food a drug and “structure/function claims” can be difficult to discern.
Nutraceutical – Any substance that is a food or part of a food and provides medical or health benefits, including the prevention and treatment of disease. In the U.S., nutraceuticals are considered part of the field of complementary and alternative medicine, a category that includes dietary supplements, beverages, and foods.

Nutrient content claim – Of particular importance to many functional food products, a nutrient generally may be the subject of a nutrient content claim only if the nutrient has an established reference intake, either in the form of a daily value that may be used in nutrition labelling, or a Dietary Reference Intake adopted by the Institute of Medicine or another authoritative body. For example, because FDA has established a daily value for vitamin E, a peanut that is enhanced to provide “more” vitamin E than conventional peanuts may be promoted on this basis if the increased vitamin E satisfies FDA’s regulation for the use of “more” claims. On the other hand, spinach that is enhanced to provide increased lutein, for which there is no reference value, cannot be claimed to be a “good source” of lutein, or to contain “more lutein than conventional spinach,” no matter how much lutein the finished food contains. The only nutrient content claim currently available to such a food would be a factual statement concerning the amount of lutein in the product (e.g., 2 mg of lutein per serving).

Qualified health claim – Authorized by the FDA when there is emerging evidence for a relationship between a food, food component, or dietary supplement and reduced risk of a disease or health-related condition. In this case, the evidence is not well enough established to meet the significant scientific agreement standard required for the FDA to issue an authorizing regulation for a health claim.