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Food as pharma

As wellness products evolve, the distinction between food and medicine blurs

Over the past decade or so, consumer packaged goods companies have continuously tailored their product lines to meet consumers' desires for foods and beverages that fit into a healthy and active lifestyle.

The first attempts at those wellness products simply contained smaller portions and less fat content. Then came so-called functional foods, generally defined as foods with added components or ingredients containing specific medicinal or psychological benefits—yogurts with probiotics or enriched cornstarch, for example. More recently, companies have introduced nutraceuticals, which are products that most people would recognize as food supplements—vitamin pills, capsules, nutritional powders, liquids and the like—that contain nutritional or medicinal ingredients that come from foods but are more commonly sold in medicinal form.

And now, a movement toward the marketing of foods that specifically address long-term preventative health is afoot, suggesting a convergence of the food and pharmaceutical industries. Last year, for instance, Nestlé created two new entities—Nestlé Health Science S.A. and the Nestlé Institute of Health Sciences—in a move to, in the words of Nestlé chairman Peter Brabeck-Letmathe, “pioneer a new industry between food and pharma.”¹ Over the next decade, Nestlé S.A. plans to invest \$510 million in pharmafoods. “What you’re seeing in all of this,” says David Levy, M.D., PwC’s global healthcare leader, “is a food company now competing with the major pharmaceuticals.”² The clear trend is to develop food and beverage products that target specific diseases. Is your organization equipped to react to that trend, and if so, where do the opportunities lie?

Highlights

- Consumers are looking to functional foods and nutraceuticals as ways of targeting illness or the risk of disease.
- Food and beverage companies are attempting to establish themselves more solidly in the health and wellness market by producing new products and reengineering existing ones to cut sugar, fat and salt.
- More joint ventures and convergence between pharma and food are likely in the future.

In brief Marketing your ingredient

There may be some general lessons to learn about finding and triggering a market, according to Julian Mellentin of New Nutrition Business. “Succeeding in the business of food and health . . . is about how you wrap your ingredient up in a product that’s genuinely differentiated and how you take that product to market. And key to that is understanding what motivates consumers most.”³

- **Move first with a core market constituency** and only then move outward. “Begin by targeting the most-health-conscious early adopters,” says Mellentin, “and make these your beachhead into the market.”
- **Look to other strong economies**—like Brazil. Economic forecasts for Latin America—specifically Brazil—are robust, “and that’s what you want to look for in a new market,” says Peter Jones, director of the Richardson Centre for Functional

Foods and Nutraceuticals at the University of Manitoba.⁴ Brazil’s functional food and dietary supplement market will be fueled by an economy that is stable, a rate of inflation that is under control and wages that are on the increase, which all adds up to increased spending by a lower- and middle-class population of about 200 million people.

- **Consider the regulatory environment:** Other promising markets in Eastern Europe, Russia, Japan, India and Asia have in common a single feature: all of them have improved regulatory environments that will tend to favor the functional foods industry.

Doing well by doing good

It's not just developed countries that are overeating and then overspending on healthcare. Globally, nearly 1.5 billion people are overweight and more than 500 million people obese, 170 million of them children, according to a *Lancet* report.⁵ “Non-communicable diseases,” says *Lancet*, “are the dominant cause of preventable disease burden, even in many low-income countries,” with 2 to 6% of total healthcare costs in many countries attributable to noncommunicable diseases related to obesity.⁶

Major global food and beverage companies have taken to heart the health and health-related financial toll that obesity has taken on global consumers, and a recent industry study undertaken by the Hudson Institute shows that their actions are paying off: companies with higher percentages of sales coming from foods deemed “good for you” report stronger sales growth, greater profits, better shareholder returns and more-positive reputations. PepsiCo, for example, has a stated goal of globally growing its healthy-foods line from \$10 billion to \$30 billion⁷ and is investing heavily in developing nutritionally better products. CEO Indra Nooyi has even said she believes PepsiCo—and other companies like it—have a responsibility to do something about the obesity problem.⁸

The opportunities extend all the way through the value chain to retailers and agricultural companies that provide critical ingredients. According to consumer trends advisor Christine Dumas, for example, Whole Foods reported last year its first quarter of negative growth in its history, but “supplements performed better than the rest of the store.”⁹ Nutraceutical International Corp., a manufacturer and distributor of nutritional supplements, has seen its sales climb steadily despite the recession.¹⁰ The global nutraceutical market, estimated to be \$150 billion this year, is forecast to reach \$180 billion by 2017.¹¹ In the United States, the big beneficiaries of the pharmafood trend are giants like Archer Daniels Midland, Cargill, and Solae—a joint venture of chemical company DuPont and agribusiness company Bunge—as demand for nutraceutical ingredients alone is forecast to top \$4 billion by 2015.¹²

The boom is on in Asia, too, with India's \$1-billion to \$2-billion nutraceutical market projected to grow to \$5 billion by 2015.¹³ The total Asian functional food and beverage market is expected to reach \$48 billion by next year.¹⁴ Indeed, the Asia Pacific market, with its culture of non-Western healing remedies, is second only to the United States in global sales of all functional foods.

Making the link between functional foods, disease mitigation and self-care

It's against that backdrop of multiple layers of opportunity that the food-as-pharma trend is emerging—in part because of a steadily growing body of solid scientific evidence suggesting that certain functional foods and nutraceuticals could be used for long-term preventative treatment of many noncommunicable diseases.

A market study of functional foods last year specifically pointed to such a convergence of functional-food “clinical trials to demonstrate [health] benefits” . . . “and the increasing scientific evidence for a link between diet and the cause or treatment of a number of diseases.”¹⁵ It's here that industry observers have discerned the contours of a very powerful market opportunity for global food and beverage companies.

The potential value of functional foods and nutraceuticals becomes even greater when considered within the general shift toward consumer-oriented healthcare. That consumer-oriented shift has undergone a new and potent inflection, according to PwC's Dr. Levy.¹⁶ “What has changed,” says Dr. Levy, “is the movement in preventative medicine toward self-care.”

Others have noted the ascendancy of the self-care ethos. “As insurance deductibles go up,” noted Dumas last October, “as unemployment rates and bonuses fall, consumers will increasingly take matters into their own hands.”¹⁷ And what better way to seize control of one's health than purchasing food and beverage products and supplements that can help manage and/or prevent chronic conditions?

Case study: a “hot” ingredient

But where to look for opportunities? Some organizations have successfully developed and marketed specific ingredients that mitigate in some way the obesity and noncommunicable disease trends. Products with those ingredients must, of course, be the subjects of serious, bona fide, independent scientific clinical trials. They should also be packaged or delivered so they address the growing consumer trend toward self-care. One example of an ingredient that fits those criteria is digestive-resistant starch.

Digestive-resistant starch

“Of all health benefits,” wrote functional food industry observer Mellentin last year, “it is digestive health that offers the most potential for growth worldwide.”¹⁸ A study of health in 32 countries by research group HealthFocus found that digestive health ranks among consumers’ top four health concerns. No surprise, then, that products for digestive health remain the biggest segment of the functional foods market. An *American Journal of Clinical Nutrition* study last year found that people who ate resistant starch got fuller sooner and stayed full longer.¹⁹

A 2009 study in the *British Journal of Nutrition* reinforced what many other studies have found: that “resistant starch consumption could have beneficial implications in weight management and, potentially, weight loss.”²⁰ That’s a win for the fight against obesity. And a second attribute—again the product of extensive scientific research—strongly suggests that resistant starch helps keep blood sugar levels from spiking, which is an effect thought to play a key role in mitigating against the onset of diabetes, another noncommunicable disease associated with the obesity trend.

Looking ahead: the convergence of food and pharma industries

A study conducted last year suggests that corporate management of consumer packaged goods and pharmaceutical companies has already internalized the science and is moving toward more-cooperative agreements, joint ventures and other forms of collaboration. “Though pharmaceuticals and food companies approached the nutraceutical market with different strategies,” wrote the report’s coauthor Frank Siedlok of Durham Business School in the UK, “the recent move towards personalized medicine and nutrition may act as a platform that will bring the two industries even closer together.”²¹

By cooperating, the industries can complement one another: the pharmaceutical industry can bring its robust experience with meeting health claims regulatory criteria, for instance, and

the food industry can bring its vast systems of packaging, marketing and distribution. The authors of the Durham study noted dozens of examples of coresearch and codevelopment between pharma and food companies. DuPont Protein Technologies, for example, has joined with General Mills to develop and market new products with DuPont’s soy product—Solae phenyl isothiocyanate protein—by using General Mills’ production facilities. Merck KGaA has entered into a cooperative agreement with food company Clover Corporation to globally market and distribute products with Merck’s omega-3 ingredient HiDHA. The authors suggest that this sort of trend will continue, and if it does, it suggests the emergence of an entirely new—and big—industry sector in the years to come.

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Resources

Editorial team

John Maxwell

Global Retail & Consumer Leader
john.g.maxwell@us.pwc.com

Denis Smith

Retail & Consumer Global Accounts
denis.x.smith@us.pwc.com

Mike Brewster

Retail & Consumer Global Accounts
michael.j.brewster@us.pwc.com

Susan Eggleton

Retail & Consumer Global Accounts
susan.eggleton@us.pwc.com

For more information on the convergence of the food and pharma industries, please contact:

David Levy, M.D.

Global Healthcare Leader
david.l.levy@us.pwc.com

John Maxwell

Global Retail & Consumer Leader
john.g.maxwell@us.pwc.com

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