

# FUNCTIONAL FOODS TASK FORCE REPORT

Spring 2014

## BACKGROUND OF THE TASK FORCE

Dairy Council of California recently held its 14th Functional Foods Task Force meeting. The task force is a group convened annually to track changes in the external environment that affect the dairy industry. This 15-member group is composed of industry experts from around the country, representing research and development, academia, marketing, education and communications. Discussions ensue around nutrition and dairy research, public policy, regulations and consumer perceptions that impact dairy. Strategies are outlined that Dairy Council of California and the industry can pursue to optimize dairy's positioning in a rapidly changing environment.

### Priority areas addressed at the recent meeting included:

- ✦ Growing research on the health benefits of protein, dairy's positive contribution to protein intakes in the United States and the new method for measuring protein quality that positions dairy strongly.
- ✦ The Food and Drug Administration's (FDA) proposed changes to the Nutrition Facts panel and how these changes will impact labeling on dairy products.
- ✦ Growing positive research on how diet affects the gut microbiota, which is the key to many aspects of health, and how prebiotics and probiotics can play a positive role.
- ✦ The perceived link between dietary sugar and obesity/ Type 2 diabetes, which challenges the food industry to reformulate products such as flavored milk and yogurt.
- ✦ The growing interest in omission diets such as gluten-free, lactose-free, GMO-free and hormone-free and the restrictive diets that result.
- ✦ The changing saturated fat paradigm, with accumulating research showing saturated fat is *not* strongly linked to cardiovascular disease as once believed.
- ✦ The link between chronic inflammation and disease risk and how inflammation can be modified through diet.
- ✦ Ways to position dairy in an arena where there is increased interest in plant-based diets.
- ✦ Dairy's role in current sustainability discussions that focus on greenhouse gas emissions and land and water use.
- ✦ The controversy over sodium in our food supply and its purported link to high blood pressure and heart disease.
- ✦ How dairy may fare in the 2015 Dietary Guidelines Advisory Committee discussions and recommendations.
- ✦ Research areas to pursue to influence future renditions of the Dietary Guidelines for Americans.



### **Everyone is on the protein bandwagon, but plant sources are becoming more prevalent.**

Much discussion centered on protein, which continues to outpace other nutrients for its beneficial effects ranging from muscle building and sports performance to satiety and weight management. Benefits are evident across the lifespan and for many population subsegments (athletes, dieters and the elderly). Newer areas of research include the effect of protein, specifically whey protein, on cognition and brain health.

Due to increased demand and high expense of animal protein, many “newer” plant protein sources such as pea, hemp and chia are being used. Many of these sources are non-allergenic and GRAS approved, making it easy for manufacturers to incorporate them into products and allowing for a quick and easy “high protein” front-of-package (FOP) claim. Often, consumers simply look for protein on the label and do not consider the source or quality of the protein. The task force agreed there is an opportunity to inform and guide health professionals and consumers on how to choose high quality protein that is complete in amino acid composition and highly bioavailable.



Protein quality is being reexamined, with a new method for assessing protein bioavailability. This method, called Digestible Indispensable Amino Acid Score (DIAAS), scores dairy protein quality 10 to 30 percent higher than the current method and more clearly differentiates between dairy and vegetable protein. Before DIAAS can be fully implemented, however, further analyses on an array of foods is needed to expand the database.

### **Labels on packaged foods, including dairy, will be updated to address current nutrition concerns.**

To stem the tide against the current obesity epidemic, and to help consumers make healthier food choices, the FDA has proposed a major overhaul to the Nutrition Facts panel on food labels. The proposal would highlight calories, de-emphasize calories from fat, make serving sizes more realistic, provide information on added sugar and improve nutrient Daily Value (DV) comparisons across products.



These changes, if implemented, will impact dairy foods in multiple ways. Of significance, sugar added to flavored milk and yogurt will be highlighted in a separate row, allowing consumers to distinguish between natural and added sugar—and perhaps discouraging them from consuming products with added sugar. The DVs for calcium and vitamin D would be increased such that a cup of milk could no longer be labeled an “excellent” source of vitamin D but rather a “good” source. However, due to other changes in DVs, milk could be touted as an “excellent” or “good” source of 11 essential nutrients rather than the nine currently touted.

The final ruling on these changes will take place later this year, with implementation rolled out over the next few years, giving the dairy industry plenty of time to alter the Nutrition Facts panel on products and make appropriate FOP claims. The task force encouraged Dairy Council of California to stay abreast of, and be prepared for, the opportunities these changes present to the industry.

## Gut microbiota could be a primary predictor of health and disease.

The task force discussed at length the research around the gut microbiota—the population of good bacteria in the gut that extends health benefits to the rest of the body. Much of this research has been done by investigating the effect of components of human breast milk on infant health; however, dairy milk may provide some of the same benefits to (human) consumers. Due to milk's unique makeup of protein and the structure of its lipids, the ingestion of milk helps the immune system and improves intestinal function.

Oligosaccharides—carbohydrates in milk that is considered a prebiotic—is one component being researched for health benefits. Prebiotics are food for probiotics, the healthy bacteria in fermented foods like yogurt and kefir. Taken together, prebiotics and probiotics provide a symbiotic approach to health that can greatly benefit consumers. There is huge potential for symbiotic dairy products to be developed with this approach in mind.

Because of the unique composition of milk and the inherent health benefits provided through the gut, the task force agreed that the dairy industry needs to “own” the gut microbiome arena. There are opportunities across the lifespan for optimizing microbiota, focusing on immune function. This presents an opportunity for personalization, as the ideal diet for a 25-year-old is different than for a 50- or 75-year-old. Dairy can play a strong role in individualizing dietary regimens.

## Sugar is the current villain for many health conditions.

Sugar—especially added sugar—is taking a lot of heat for its perceived link to obesity, Type 2 diabetes and heart disease. The World Health Organization recently published a report suggesting that intake of added sugar not exceed 5 percent of total energy in both adults and children—a far cry from the typical 16 percent consumed in the United States.

Public health advocates are working to reduce sugar consumption through various efforts such as taking chocolate milk off school lunch menus, proposing taxes on sugar-laden foods like soft drinks and restricting the marketing of candy and sweets to children. These advocates do not always consider the unintended consequences of their actions—for example, the drop in overall milk consumption, and decrease in intake of many important nutrients, when chocolate milk is eliminated from school lunches.

The food industry continues to seek sugar alternatives such as monk fruit, stevia and extracts from juices, some of which are many times sweeter than sugar so less is needed. It is unclear whether these alternatives would need to be labeled as added sugar under the proposed new labeling laws. Many parents, school officials and policymakers are skeptical of non-nutritive sweeteners, making it difficult for the industry to develop solutions that please everyone. The task force agreed that messages need to be conveyed that sugar, like any nutrient, should not be vilified but consumed in moderation and that unintended consequences of public policy decisions need to be considered carefully.



## TASK FORCE REPRESENTATIVES

Cargill, Inc.  
Dairy and Food Communications, Inc.  
Davisco Foods International, Inc.  
Foods for Health Institute  
Glanbia Nutritionals  
Global Dairy Platform  
Hilmar Cheese Company  
International Dairy Foods Association  
Land O'Lakes, Inc.  
University of California at Davis, Food Science & Technology Department  
University of Southern California, Department of Pharmacology and Pharmaceutical Sciences

## STRATEGIES IDENTIFIED FOR THE INDUSTRY

- \* **Highlight the high-quality protein** that dairy provides. Many consumers think of meat and eggs as good protein sources but are not aware that dairy is just as good if not better.
- \* **Keep informed of FDA's upcoming revisions to the Nutrition Facts panel and FOP labels** to prepare for making the necessary changes in the coming years.
- \* **Label products and educate consumers about milk's nutrients beyond calcium**—potassium and vitamin D, for instance, are two of the four nutrients of concern in the American diet.
- \* **Position dairy strongly as key to gut health** due to its inherent composition and structure of fat, protein and carbohydrate. Support and embrace new research in the area of probiotics and prebiotics and educate about these benefits as they become known.
- \* **Continue to research and develop flavored milk formulations** that are well received by children and teens and meet school guidelines. Consider commenting to the Dietary Guidelines Advisory Committee advocating for chocolate milk in schools, emphasizing the unintended nutritional consequences of bans and restrictions.
- \* **Promote chocolate and other flavored milk to athletes and teams as the perfect recovery beverage**, supplying an ideal ratio of carbohydrate to protein that the muscles need.
- \* **Stay abreast of the sodium recommendations**, which may be in flux. If liberalized, as the research supports, the current black cloud over cheese and cottage cheese will be lifted and will open opportunities in school foodservice and other institutional settings to reposition those products.
- \* **Focus attention on terms that consumers are looking for**, such as back to basics, clean, pleasurable and natural. At the same time, appeal to the indulgent side of consumers by using the terms premium, special flavors and limited edition.
- \* **Be open to the development of new milk-based products** that incorporate unique flavors, textures, fortification and even other food groups. Focus on added value, convenience and individualization.
- \* **Embrace the move back toward full-fat dairy foods** as the message hits consumer media that saturated fat does *not* cause heart disease. Highlight natural wholesomeness, taste, satiety effects and overall appeal.
- \* **Encourage consumption of dairy foods in well-balanced vegetarian diets.** Including dairy foods can help allay deficiencies in nutrients such as protein, calcium, vitamins B-12 and D and zinc that might otherwise occur in solely plant-based diets.
- \* **Broaden discussions around sustainability to include the nutrient density of dairy products** rather than focusing solely on greenhouse gas emissions. In addition, highlight the vast improvements made over the past 60 years in production practices that benefit land and water resources.
- \* **Support research that might impact future Dietary Guidelines discussions and recommendations** such as investigating the broader health impact of sodium, potassium or protein on health and disease risk. Dairy Council of California will also monitor the proposal to encourage sustainability practices within the new Dietary Guidelines for Americans.

## DAIRY COUNCIL OF CALIFORNIA

Since 1919, Dairy Council of California has been an innovator in nutrition education. Dairy Council of California's mission is to educate consumers to make healthy eating choices, with milk as a cornerstone. We are committed to an inclusive food-grouping system, strategies that result in behavior change, accommodating personal choice and promoting the health benefits of milk.