Modern diet books demonize grain-based foods as a root of individual weight management problems. Grains in diets have been reduced in portion size, ridiculed as empty calories, or even cut out of dietary patterns completely. However, current evidence-based dietary guidance recommends consuming about half of an individual’s caloric intake from carbohydrates. With the rise in popularity of whole grain products and increasing awareness of alternative grain sources, the grains community has a unique opportunity to shift the reputation of grains from empty and problematic to nutrient dense and full of nutrition and culinary opportunities. The grains community has a long history of working with public health officials to enhance the food supply in response to nutrient needs. Flour enrichment and fortification have decreased public health issues related to B-vitamin and iron deficiencies and neural tube birth defects. The current obesity epidemic now calls on the grain community to once again be leaders when responding to the public health need of making available more nutrient-dense, lower-energy options.

**Grains for Health Background**

In response to this need, the Grains for Health Foundation (GHF) was formed in February 2009 with the primary mission of forging partnerships with food and health leaders to develop evidence-based strategies that facilitate the development, delivery, and consumption of grain-based foods that promote public health; lower the incidence of diet-related chronic disease; and curb health care costs. Under the leadership of the GHF Board, comprised of nine grain community leaders from six countries, the foundation focused on developing initial infrastructure, defining programming focus, and setting strategic direction during the last two years (1).

**Grains for Health Mission**

GHF convenes, facilitates collaboration, and works toward collective solutions with diverse stakeholders spanning the grain supply chain. In addition to those stakeholders who physically handle grain products in the supply chain, GHF also invites key influencers and researchers into discussions that help to shape next steps for the grains community and formulate research agendas. GHF programming works at the interface of three strategic pillars: grain science, child nutrition, and sustainable systems training. Each pillar supports essential ways of viewing and responding to chronic diseases, such as obesity, occurring around the world. GHF is strategically developing a coordinated effort within the grain community to change the health of the food supply, utilizing grain science, health technology, and communication.

**A Year in Review**

**School Grain Supply Chain: A Focus on Child Nutrition Using a Systemic Approach**

GHF brought together the entire grain food supply chain for schools throughout the year in different settings to determine next steps in getting healthier grains into schools. In April 2010, in conjunction with the AACC Intl. Northwest Section, GHF hosted the workshop, “Refined vs. Whole Grain Supply Chain Management: Getting Whole-Grain Goodness to Young People.” Speakers’ topics ranged from grain research that explained the understanding of antioxidants to a case study that demonstrated the power of communication in removing barriers to securing whole grain products in the school supply chain. Key findings from this meeting, along with a white paper written in May focusing on barriers and incentives in the school grain supply, helped shape programming for a larger meeting held in June.

From June 2 to June 3, 2010, the entire supply chain for schools met under one roof at The Depot in Minneapolis, MN, U.S.A. Participants from diverse sectors, including grain geneticists all the way to kids who consume school lunches, discussed ways that we can continue to work together to improve the healthfulness of grain-based foods available to schools. During the second day of the meeting, working groups uncovered potential next steps or action areas for improving the healthfulness of grain foods in schools. These outcomes have been delivered to a focused group of volunteers from all segments of the supply chain. The Future of Grains Task Force met for the first time October 14–15, 2010. This group developed a single vision for the future of health and grains in schools and will be refining goals, objectives, and desired outcomes of the task force’s work during the coming months to be completed by October 2011.

In addition to the systemic approach to changing the foods served to children in schools, the Scientific Advisory Committee (SAC) of GHF, during their September 17 meeting, identified regularity in children as a targeted issue that they would like to address in the coming months. The committee commissioned a white paper to be completed that will explore the current state of the body of evidence for children and regularity and any potential opportunities for use of whole grain and fiber foods for promoting bowel health. This review is on task to be completed by February 2011 and presented during the next meeting of the SAC.

**Whole Grain Summit: A Focus on Grain Science**

To date, the international grain research community has organized three international Whole Grain Summits, beginning...
with the first Whole Grain Summit in Finland, continuing with the Whole Grain Summit in Minneapolis in 2005, and most recently, the 2009 Summit in Newcastle, England. “Grains for Health: A Look to the Past and Insights into the Future,” prepared by GHF and published in Cereal Chemistry in March 2010, summarized the progress of grain research and health initiatives between 2005 and 2009 (2). It also called for grain scientists to focus research efforts on those issues that could be directly linked into the food supply chain to create affordable, tasty, and convenient grain foods that promote a balanced body weight and promote public health. Beginning in 2010, GHF has initiated discussions with several international and domestic grain research communities to focus the next Whole Grain Summit, currently planned for 2012, on this specific concept. The next Whole Grain Summit programming will purposefully identify those technologies and research opportunities that have the greatest potential to develop foods that allow consumers to easily create eating habits that bring food consumption patterns closer to dietary guidance. In short, the grains community will respond to the challenge given by the U.S. Dietary Guidelines Advisory Committee 2010 to make the healthy choice for the public the easy choice (4). Planning is currently underway and many opportunities are available to become involved with this exciting and important event.

In September, GHF had the privilege of recognizing three individuals and one organization as the first honorary members of GHF. Without the leadership and tireless efforts of these people, GHF would not be in existence today. The 2010 GHF honorary members are Frederick Hegele, Gilbert Leveille, David Topping, and Australia’s Commonwealth Scientific and Industrial Research Organisation (CSIRO).

What's Next?

After a busy 2010, the foundation is excited for the coming year and the opportunity to work together with partners toward changing the food supply to improve public health through strategies based on science. Several of the initiatives started in 2010 will carry into 2011, including a focus on pasta, writing a white paper exploring regularity in children, the grains in schools task force, and planning for the Whole Grain Summit 2012. Other topics of interest that the foundation may develop projects around in 2011 include incentives versus regulations for changing the food supply, calorie reduction as a core product-development focus, building a network of key gatekeepers to children’s diets, and an evaluation of drivers and foundational systems that currently support our efforts in grain science and health.

On the governance side of GHF, leaders are in the process of developing a business plan that would allow more opportunities to use sponsor members’ dollars for direct programming and research opportunities. Since its inception, the leadership of the foundation has based the funding structure on three legs: sponsor membership support, grants, and government funding. In 2011, GHF will aggressively seek alternative sources of funding that allow sponsor membership support to be leveraged to its fullest extent. This plan will be completed in January 2011 for implementation throughout the year.

Conclusion

GHF exists to create foundational changes in the way the grains research community influences societal health, feeds children, and works toward collective solutions for healthier grain-based foods. A helpful way of understanding what the foundation is can be found in understanding what GHF is not. GHF is not a product-promotion organization, a professional association for only researchers, or a lobby/interest group. We are scientists and business and health professionals working together at the grass-roots level to nurture all sectors, disciplines, and cultures to improve public health by redesigning the food supply. GHF does this by working together to investigate, leverage, and transform food systems through human connectivity, facilitating the development, delivery, and consumption of grain-based foods.
that promote a balanced body weight, reduce chronic disease, and curb health care costs.

If you would like to join the effort, the foundation has many on-going initiatives for member involvement. The foundation hosts workshops, meetings, and task force initiatives throughout the year. There are opportunities to develop GHF-sponsored articles or publications that explore specific topics relating to grains and health. GHF distributes a monthly update that recaps the past month and always includes dates of upcoming events or task force opportunities. If you would like more information on GHF or how to get involved, please visit the GHF website, www.grainsforhealth.org, or contact the authors at your convenience.

Denise Hauge is currently director at the Grains for Health Foundation (GHF). The mission of the GHF is to forge partnerships with food and health leaders to develop evidence-based strategies that facilitate the development, delivery, and consumption of grain-based foods that promote public health, lower the incidence of diet-related, chronic disease, and curb health care costs. Hauge completed her M.S. degree in nutrition at the University of Minnesota in 2010 with a focus on interdisciplinary, cross-sector engagement in the field of nutrition and grain science. She also learned skills in nonprofit management, collaborative leadership, and communication during her time as a fellow in the Buckman Fellowship for Leadership and Philanthropy during her graduate studies. AACC Intl. member Hauge can be reached at denise@grainsforhealth.org.

Len Marquart is an associate professor in the Department of Food Science and Nutrition at the University of Minnesota. His current research focuses on consumer understanding and factors that influence whole grain consumption. While at General Mills, he led the company’s research in the health aspects of whole grains. He received the James Ford Bell Technical Leadership Award and the General Mills Presidents (Champion) Award for his contributions. Marquart is the founder and president of the Grains for Health Foundation. The foundation’s current focus is to facilitate communication and to integrate science and technology into the grains supply chain to help deliver more grain foods that meet dietary guidance. AACC Intl. member Marquart can be reached at lmarquar@umn.edu.

Stephen D. McCurry is vice president, Grains for Health Foundation, and chair of its Scientific Advisory Committee. In addition, he is active with several small start-up companies and is a principle in PolyCell Technologies, a Minnesota company developing and marketing grain-based nutritional biopolymers, including β-glucans. He consults widely on a range of scientific and food-related regulatory issues with FDA and other agencies. After receiving his Ph.D. degree from the Biochemistry Department at Michigan State University, McCurry worked at MIT. He started his food industry career in the Research Department of the Kellogg Company in Battle Creek, MI, U.S.A., and was promoted to corporate vice president. He then moved to Minnesota as vice president and general manager of central research of Cargill Corporation. He left Cargill in 2001 and started his consulting business. AACC Intl. member McCurry can be reached at smccurry@visi.com.

Since 2005, Gary Fulcher has been professor and head, Department of Food Science, University of Manitoba, in Winnipeg, Manitoba. Following 12 years as research scientist and research coordinator for grains and oilseeds in Agriculture and Agri-Food Canada, from 1989–2005, Fulcher was the inaugural holder of the General Mills Chair in General Chemistry and Technology in the Department of Food Science and Nutrition, University of Minnesota, St. Paul, MN, U.S.A. He is a member of a number of scientific organizations, including AACC International, American Chemical Society, American Association for the Advancement of Science, and Institute of Food Technologists. He has published over 400 refereed papers, book chapters, patents, reviews, and critical reports, and is a fellow of the American College of Nutrition. He is also the recipient of the Geddes Lectureship Award (AACC Intl.) and a Lifetime Achievement Award from the American Oil Chemists Society. Fulcher’s research is focused primarily on structure/function relationships in foods and biological systems. AACC Intl. Member Fulcher can be reached at gary_fulcher@umanitoba.ca.

Please note that the Grains for Health Foundation is no longer housed at AACC International Headquarters. Their new address is 6311 Wayzata Blvd., Ste. 240, St. Louis Park, MN 55416 U.S.A.; Phone +1.952.500.9012.