

GHI Matters

The newsletter of the Global Harmonization Initiative

January/February 2011



Welcome GHI Members

Welcome to the first issue of the Global Harmonization Initiative's official newsletter, *GHI Matters*.

The title is a bit of a play on words: First, this newsletter is designed to keep you updated on all matters related to the Global Harmonization Initiative. Since its inception in 2004, there has been tremendous growth in GHI's membership, meetings and working group activities. As such, the GHI Executive Committee recognized the need for a communications vehicle to serve the information needs of a growing member base.

Second, as many of you know, GHI is a network of scientific organizations and individual scientists working together to promote harmonization of global food safety regulations and legislation. Our objective is to make a difference, to build scientific consensus that *matters*. Why? Because we believe that providing credible, impartial information that promotes science-based policy-making worldwide will have a significant, positive impact on several fronts, including eliminating the unnecessary destruction of food, reducing world hunger, and increasing food safety and health for all. And so, *GHI matters*.

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Achieving consensus on the science of food regulations and legislation to ensure the global availability of safe and wholesome food products for all consumers.

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Among the milestones we've reached are the official registration of GHI in Vienna, Austria in 2007*, and in 2010, the finalization of our organizational structure, concluding with the first General Assembly meeting held in October. In order to remain impartial, GHI does not accept financial support from industry or governments. The consequence, so far, is that GHI works exclusively with volunteers. All costs are covered by voluntary contributions from individual members and from scientifically independent organizations, such as societies and universities.

Despite these constraints, GHI has given presentations at events on all continents and has held meetings every year at many locations. GHI also supports several Working Groups and more are being started, all aimed at removing scientifically unjustified barriers to the movement of food across borders. Our volunteer base continues to contribute their time and expertise in developing our website, communications pieces and consensus-building protocols, for which GHI is very grateful. In the coming months, look for *GHI Matters* in your email and feel free to let us know what subjects and issues matter to you!

With kind regards and best wishes to you all, we look forward to your continued support.

—Huub Lelieveld, President, GHI



GHI meetings and workshops are where the consensus happens!

*GHI has legal non-profit entity status and its charter and constitution are registered in Vienna, Austria as the GHI-Association (ZVR453446383).



Become a vital contributor to providing the world's regulators, policymakers and public health authorities with a foundation for sound, sensible, science-based food laws and regulations

It costs only a few minutes to enroll

In order to build a truly global, impartial consensus on the current scientific knowledge that will inform objective regulatory decision-making on the world stage, GHI actively encourages scientists from industry, government and academia to join as individual members **at no cost**.

Please visit our website and complete a GHI Membership Enrollment form. There is no fee to join GHI.

www.globalharmonization.net

COMMENTARY

The Importance of Analysis in Food Safety and the Role of Metrology

By Dr. V. Prakash

The world of food safety depends very much on the analysis of food by physical, chemical and biological experimentation to trace pathogens, chemical contaminants, pesticides, fungicides and herbicides, heavy metals and toxins, to name a few. These important parameters mark the safety of food based on the level of contamination. From the results of such measurements major decisions are taken as to whether to reject a consignment of food or to accept it. It is this critical decision that is based on food testing and analysis, and the analysis of the food sample depends on the metrological knowledge base of the analysts and the interpretation thereof. In a larger sense, the purpose of metrology is to use well-established standard methods in order to compare results from various methods used with that of the standard in order to establish other critical parameters such as error bars, precision, reproducibility, traceability, and so on.

The role of certified reference materials (CRMs) has a lot to do with the food matrix. The recovery of such CRMs from different food matrices is a challenge for today's food analysts and is expected to be a more critical challenge in the future as we move from the micro-level analyses of today to the nano levels of tomorrow. Current trends toward the miniaturization of equipment, on-line validation, documentation and retrieval of analytical results and information, improved database management and advances in automation all will certainly lead the way to forming a better foundation for food safety in tomorrow's world. As a result, new analytical methods, instruments and equipment used for food analysis across physical, chemical and biological disciplines will surge the market.



It is important, therefore, to recognize the huge responsibility of the analyst in the food safety chain, especially with regard to the objectives of the Global Harmonization Initiative (GHI). As we look at harmonization, perhaps we should also look at metrological harmonization so that analysts from around the globe are able to follow the same or closely similar methods and by using CRMs, obtain comparable values from analytical results. In this way, decisions taken will have a common platform based on common measurements.

Reaching consensus on the use of metrology in food analysis has the potential to result in improved food safety benefits throughout the global food chain. For example, commonly accepted metrological data about the way food products are handled during transportation (i.e., temperature abuse or exposure to contaminants) can be linked together in a holistic approach to better ensure food safety and security.

—**Dr. V. Prakash**, is Director, CFTRI, Mysore, India, and an Executive Committee Member of the Global Harmonization Initiative; President, Nutrition Society of India; Governing Council Member, International Union of Food Science and Technology (IUFoST), International Union of Nutritional Sciences (IUNS) and Chairperson, Task Force on Nutritionals & Nutraceuticals; and Immediate Council Member; and Past President, International Academy of Food Science and Technology (IAFoST).

GHI ON THE ROAD

Meeting Update: GHI Working Group Chair Speaks Out on Antibiotics in Shrimp

The Bangladesh Shrimp and Fish Foundation (BSFF) and the Seafood Importers and Processors Alliance (SIPA) met in Belgium on 24 November 2010 to discuss the results of research of Ghent University and the Agri-Food & Biosciences Institute of Belfast, UK, on the presence of antibiotic residues in Bangladeshi giant freshwater prawns (*Macrobrachium rosenbergii*).

Dr. Jaap Hanekamp, chair of the GHI Chemical Food Safety & Toxicity Working Group, speaking on behalf of GHI, identified the cause of the problem as being the arrival of technology that enables measurement of chemicals at levels below the ecological chemical thresholds (e.g. naturally occurring chloramphenicol was found *again* in consumer products, as published in April 2010 by Wageningen University, NL). According to GHI, the legislation on human exposure to low levels of chemicals should be toxicology-driven and not technology-driven, prone to the *principle of precaution*. The former recognizes thresholds of risks, the latter does not. Revision of the current food safety legislation to encourage movement away from precaution towards risk should be considered in this field.

It is GHI's position that illegal use of antibiotics should be penalized. It is, however, doubtful whether very low concentrations are due to abuse. The presence of minute amounts of antibiotics, even if a million times below the therapeutic level, has been and still is a reason for governments to seize and destroy food that, from a scientific point of view, is safe. If the antibiotic (or any other substance) is present in harmless concentrations, its presence, natural or not, should not result in the destruction of food. Legislators and courts need to understand that there are no toxic substances but only toxic concentrations of substances (as expressed by Paracelsus more than 470 years ago).

For more information on the 24 September meeting, download the press release from the GHI website at www.globalharmonization.net, or contact Dr. J. Hanekamp, jaap.hanekamp@globalharmonization.net



Forest Food

GHI promotes an international regulatory approach to remove hurdles to the distribution of food. One of these topics is the production of food and medicines in forests in Vietnam that has been proven to be sustainable by 28 generations over a period of 300 years.

Reducing hunger can be accomplished by increasing food production, improving food distribution, cutting post-harvest food losses, and eliminating food waste resulting from food regulations that are not based on science and food safety. As energy costs rise, another method that will grow in importance is enhanced local food production. The following video link presents a food forest in Vietnam that has supplied food and medicinal plants, year round, for 28 generations:

<http://www.nextworldtv.com/videos/permaculture/300-year-old-food-forest-in-vietnam.html>

Governments should be careful in attempting to subject such methods to modern food regulations. Rather, one should think about ways to ensure that such traditional methods will not be abandoned or get lost, and that we learn from the experience.

—Dr. Kenneth Marsh, GHI
Ambassador Program Coordinator

GHI Promotes Science-based Food Regulation at IUFOST Congress in South Africa

The Global Harmonization Initiative (GHI) introduced several new consensus-building resources and opportunities to attendees of the International Union of Food Science & Technology (IUFOST) 15th World Congress of Food Science & Technology in Cape Town, South Africa, 22-26 August, 2010.

GHI's activities at the Cape Town conference were supported by IUFOST, EFFoST and the South African Association for Food Science & Technology (SAAFoST), and included a full session, 'Harmonising Food Regulations,' on 24 August. The session featured a detailed update on the initiative's progress, membership and activities given by GHI officer Dr. Vishweshwaraiah Prakash. Dr. Prakash discussed how the elimination of regulatory differences will make it more attractive for the private sector to invest in food safety systems and technology and help prevent the proliferation of non-science based trade barriers that do not have a clear and evident benefit to protecting public health. The session also provided in-depth presentations from GHI officers and experts on global harmonization challenges and efforts in the areas of mycotoxins, nanotechnology and food security.

Of the four standing GHI Working Groups (WGs) - *Listeria monocytogenes* in Ready-to-Eat (RTE) Meals; High-Pressure Sterilization; Chemical Food Safety & Toxicity; and Nanotechnology - the latter two conducted workshops at the IUFOST World Congress. GHI's working group meeting format serves as the primary mechanism for consensus-building among scientists on global harmonization of food safety regulations. The GHI Workshop on Mycotoxins, led by Prof. Wentzel

Gelderblom (South Africa) took place on 24 August, and the GHI Workshop on Nanotechnology, led by Prof. Frans Kampers (The Netherlands), was held on 25 August.

GHI also hosted a special working group knowledge-building course in Cape Town. The two-day Toxicity Testing Course, led by Dr. Firouz Darroudi (The Netherlands), was held 27-28 August. The course provides information that supports consensus discussions in the Chemical Food Safety & Toxicity Working Group. The hands-on workshop provided course attendees with an inside look at Dr. Darroudi's groundbreaking research and methodology that provides an alternative to the use of vertebrate animals to detect genotoxic, anti- and co-genotoxic agents.

GHI was provided a complementary exhibit stand by IUFOST, and several officers and coordinators took the opportunity to meet and greet conference attendees, and to answer questions about the organization. On display at the booth was GHI's first book, *Ensuring Global Food Safety: Exploring Global Harmonization*, published in November 2009 by Elsevier/Academic Press. A number of other materials were available at the stand, including membership enrollment sheets, working group protocols, and information about the newly launched GHI Ambassador Program. The program, coordinated by GHI member Dr. Ken Marsh, is designed to empower individual members to inform and invite scientists in their nations or regions to participate in the organization's consensus-building activities.

GHI will attend the 16th Annual IUFOST Food Science and Technology conference scheduled to take place in Salvador, Brazil in 2012.

—**Julie Larson Bricher**, Communications Director, Global Harmonization Initiative



GHI's exhibit stand banner was displayed for the first time at IUFOST South Africa in August 2010. The stand space was provided at no charge to GHI by the organizers.

Ensuring Global Food Safety: Exploring Global Harmonization

edited by C.E. Boisrobert, A. Stjepanovic, S. Oh, and H.L.M. Lelieveld

Reviewed by W.H. Sperber, PhD
Global Ambassador for Food Protection, Cargill (retired)

Upon first seeing the title, *Ensuring Global Food Safety*, the reader might expect that this would be a book about traditional food safety, detailing the hazards and control measures involved in food production, processing, and distribution. In fact, this book is nothing like that. Rather, the book's content is better described by its subtitle, *Exploring Global Harmonization*.

Organized by several founders and principals of the Global Harmonization Initiative (GHI, www.globalharmonization.net), the book extends an important GHI emphasis on food security and the economic and social "right to food" by developing a series of discussions about contemporary food safety issues and the feasibility and necessity of harmonizing a myriad of national food safety procedures and regulations with international standards. The need for such harmonization has been created by the growing global food trade and the increasing difficulty of identifying and controlling unexpected hazards.

Benefitting from the multi-disciplinary expertise of 58 contributors, the book is organized in 24 chapters. Major chapters cover regulations in many countries and procedures such as performance objectives, analytical methods, capacity building, and control of microbiological risks. The last, dealing with the harmonization of regulations for *Listeria monocytogenes* control, may be a useful model for the harmonization of regulations for additional foodborne microbial pathogens.

A wide range of specific issues is covered in additional chapters on antibiotics, mycotoxins, food additives such as monosodium glutamate, food packaging, nanotechnology, novel processes, carcinogens and other harmful chemicals, nutrition, and ethnic foods. Most of these chapters address topics that are not commonly encountered in traditional food safety texts, e.g., the analysis of the carcinogenic properties of foods and applied nutrition. These treatments of atypical issues are benefits for a profession in which most attention to food safety hazards is typically given to microbiological hazards.

This book should be a useful reference for those attempting to harmonize food safety regulations. It should also serve as a stimulus for the growing network of food safety professionals who are involved in emerging efforts to create or restructure national and international food safety organizations, thereby facilitating the harmonization of global food safety procedures and regulations.

This review appeared on pg. 92 in the August 2010 issue of Food Technology magazine, a publication of the Institute of Food Technologists (IFT), Chicago, IL USA (www.ift.org).

Ensuring Global Food Safety

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DESCRIPTION

Based on the principles of the Global Harmonization Initiative (GHI), **Ensuring Global Food Safety** offers a rational and multi-faceted approach to current food safety issues, while arguing that a science-based global regulatory framework will enhance the safety, availability and quality of the food supply worldwide. GHI was specifically established to help build global consensus on the scientific evidence underpinning food safety policymaking. This book provides practical examples in key areas such as microbiology, toxicology and nutrition, as well as discusses possible improvements necessary to sustain the integrity of the global food supply in the 21st century.

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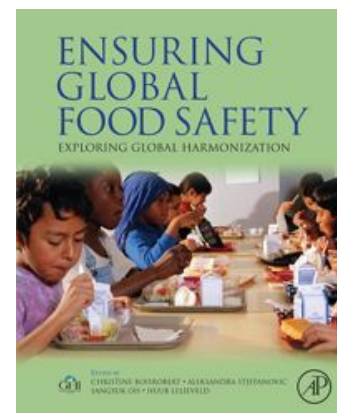
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Become a GHI Member

If you are interested in becoming a member of GHI, we invite you to take these simple steps:

1. Please visit www.globalharmonization.net and complete the Individual Membership Enrollment form. You will be asked to provide full contact information, current professional affiliations and areas of scientific expertise. **There is no fee to join GHI.**
2. Once your application has been accepted, you will receive notification via email, along with information from GHI regarding upcoming meetings, working groups workshops, and more.
3. For further questions on GHI membership, please send your inquiry to the attention of the Honorary Membership Director via email at membershipdirector@globalharmonization.net.



Gain an influential voice in consensus with other experts that will have a real impact on reducing world hunger, improving food safety and nutrition, and supporting new technology applications.

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