




GHI Matters

The newsletter of the Global Harmonization

Message from the President

It is a pleasure to start by sharing with you remarks I have received from the readers of GHI Newsletters such as "... it contains more substance than most e-Newsletter". These compliments are for those contributing articles and the editorial team, thanks to you all! It is good to receive feedback that suggests our newsletters are not only seen, but also read and found to be useful.

As you have may have noticed from the newsletter or by participating in meetings with GHI involvement, GHI is very active indeed. As a consequence, this issue is larger than previous because we did not want to delay publication of articles for two months. Much of the information is important now. This applies, for instance, to the various meetings in which GHI is involved with either presentations or Working Group meetings and, in Brazil, the General Assembly. In particular, I would like to draw your attention to the Toxicity Course we are organising in conjunction with the EF-FoST Conference in Montpellier (FR). It is a unique opportunity to learn in a short time about reliable and rapid genotoxicity testing without using animals. There are also articles about chemical food safety and regulatory issues as well as an abstract about a high-quality and clear report 'Food security, the moving borders of poverty, free markets and political interventions' by Atef Idriss (GHI ambassador in Lebanon), John Lupien (FAO Food and Nutrition Division) and several other co-authors.

Summary reports on meetings this year in Bangalore (India) and St Petersburg (Russia), and announcements of meetings in the USA, Brazil and France prove that GHI members are active in influencing society to move to science based regulations. 

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With GHI, we try to improve the world a little. Katherine Flynn is the lead editor of P3FC, which stands for “People, planet, prosperity and the food chain”. On page 7 she invites GHI to write articles that are relevant to both GHI and P3FC.

I end with a request that everyone send Aleksandra Martinovic detailed information about relevant meetings, so we can maintain a helpful agenda on our website and in the newsletters. To assist with this, you will find a template for the required information elsewhere in this newsletter.

With kind regards,

Huub Lelieveld, 4 may 2012.

Genetic Toxicology and its relevance for human risk assessment

Dr. Firouz Darroudi
Department of Toxicogenetics,
Leiden University Medical Centre (NL)

Genetic toxicology aims to devise a quick and efficient strategy for detecting chemical mutagens/carcinogens. Genetic toxicology and mutagenicity testing systems have a dual role in public health: to (1) identify chemicals in our environment that are capable of causing genetic alterations and thus pose a threat of genetic damage to generations yet unborn and (2) screen potentially carcinogenic chemicals rapidly. Currently, screening for mutagenic environmental chemicals is a major enterprise in biological and biomedical sciences in many parts of the world. The reason for this spectacular surge of interest is not that we have just discovered chemicals that may be mutagenic as this became evident in the 1940s but rather a sequence of events, namely: (1) our relationship with the environment, which has become a priority in all sciences, and the realization that all human populations are exposed to a variety of chemicals in their environment; (2) studies initiated during the last forty years have provided evidence of mutagenic chemicals among food-additives, dietary components, pesticides, pharmaceuticals, cosmetics, and industrial and environmental compounds, most of which are indispensable for our wider welfare; and



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).

(3) a striking correlation between carcinogenicity (studied in experimental animals) and mutagenicity (*in vitro*, such as in the bacterium *Salmonella typhimurium*, and cell cultures derived from mammals).

These studies have revealed that man is susceptible to the carcinogenic and mutagenic effects of chemicals present in our environment including the water we drink, and the food chain. Thus, it is appropriate to time and efforts towards: (1) identification of mutagenic and/ or carcinogenic chemicals in our environment including those that are already present and those that are being introduced; (2) studies on the types and magnitude of genetic effects, and their impact on our health and well-being, so adequate and timely measures can be taken to avert significant exposures; and (3) development and validation of new *in vitro* models and biological assays to evaluate low level exposures to potential genotoxic and non-genotoxic carcinogens since their identification may significantly influence human health and welfare.

Toxicity testing – EFFoST 2012 in Montpellier (FR)

Differences in food safety regulations hamper movement of food between countries, and one of the significant obstacles to harmonizing regulations is the difference between methods used to assess genotoxicity as well as the capacity to undertake testing. In the past two decades, a reliable method to determine genotoxicity in humans has been developed *in vitro*. Taking just one to two days, this method does not require expensive equipment or animal testing, and is therefore a cost effective alternative.

GHI recognizes the importance of such methods and, for several years, has organized a cytogenetic course to promote the use of this method. Because GHI is closely associated with, and supported by EFFoST, there is an opportunity to follow the course, given by Dr Firouz Darroudi from the Department of Toxicogenetics, Leiden University Medical Centre (NL), during the annual EFFoST Conference.

The course consists of a theoretical part (Monday, 19th November 2012) and hands-on sessions (Friday 23rd and Saturday 24th November 2012). The fee for participation has been kept as low as possible to encourage participation, specifically €250 (+ VAT). This is a unique opportunity because the fees are usually much higher. For registration go to www.fffostconference.com/index.html.

Agenda

Meetings with GHI involvement

May 15-17 Global Food Contact 2012, Baltimore (USA, www.food-contact.com) - this meeting has been organised by Pira International, Cleeve Road, Leatherhead (UK), and Dr Alejandro Ariosti (Argentina), an active member of GHI, will give a presentation about GHI and discuss Ensuring Global Food Safety – Exploring Global Harmonization.

May 23-26 The 6th Central European Congress on Food (CEFood 2012), Novi Sad (RS, <http://cefood2012.rs>). Dr Gerhard Schleining, GHI Board Member, will give a presentation about GHI.

June 25-28 IFT Annual Meeting in Las Vegas (USA, <http://www.am-fe.ift.org/cms>) - as is now traditional, there will be a general GHI meeting during this event, organised by Larry Keener (lkeener@aol.com) and Christine Boisrobert (christine.boisrobert@airliquide.com), both founding board members of GHI. For details see page 10.

August 5-9 The IUFOST 16th World Congress of Food Science and Technology, Foz do Iguacu (Brazil, <http://iufost.org.br>) - a committee chaired by the GHI representative of the Food Chemistry Division of EuCheMS, Prof. Hans Steinhart, has put together a symposium on 'International Perspectives of Food Safety and Regulation: A need for Harmonized Regulations'. Chairs of the Working Group Mycotoxins, Naresh Magan and Mark Shamtsyan, intend to host a WG meeting during the congress on the afternoon of 8th August (14.00-18.00). Prof. Sangsuk Oh (ssoh71@yahoo.com) and Dr Prakash have assumed responsibility for coordinating the GHI meetings during the congress; the GHI General Assembly will be on 8th August from 10.00-12.00

October 22-26 SOMEICCAS's National meeting in Mazatlán. SOMEICCA stands for Sociedad Mexicana de Inocuidad y Calidad para Consumidores de Alimentos (Mexican Society for Consumer Food Safety and Food Quality). Marco Antonio León Félix, the GHI Ambassador in Mexico, is involved with this organisation, and apart from hosting a local GHI meeting (in Spanish), SOMEICCA would welcome GHI Working Group meetings.

November 5-9 The 7th Conference of the World Mycotoxin Forum and XIIIth IUPAC International Symposium on Mycotoxins and Phycotoxins in Rotterdam (NL) (www.wmfmeetsiupac.org) - Dr Naresh Magan has been invited to chair a session, and is investigating whether there will also be an opportunity to discuss the WG Mycotoxins during that session or whether a poster could be presented.

November 7-9 Annual Meeting of EHEDG (www.ehedg.org) in Valencia (ES) - EHEDG is one of the sponsors of GHI, and the GHI Working Group Food Contact Materials (chaired by Eric Partington, eric@effex.co.uk) will host a meeting during this event.

November 20-23 EFFoST Annual Conference in Montpellier (FR, www.fffostconference.com) - Aleksandra Martinovic will present a paper on 'Global harmonization of food safety regulations: what is the progress?' whilst Dr Firouz Darroudi will host a low-cost-high-quality genetic toxicity testing course in association with the conference (Monday, 19th [theory] and 23-24th [practical] November). Registration is via de conference website.

*Anyone organising a meeting or participating in a meeting with GHI involvement, please inform **Dr. Aleksandra Martinovic** (aleksandram74@gmail.com), GHI Meetings Coordinator and GHI Ambassador for Montenegro.*

Orange juice safe for the entire world, except for citizens of the USA?

Science based, globally harmonized regulations are essential for business and public health

Larry Keener

International Product Safety Consultants

Seattle, Washington USA

As of March 30, 2012, the United States Food and Drug Administration (FDA) is reported to have collected samples from 144 shipments of orange juice or orange juice concentrate bound for US markets. The samples have been tested for the presences of a pesticide, carbendazim (Derosal®). Of the 144 shipments tested, the FDA has reported 103 negative for carbendazim residues.

The agency reports that 30 samples have yielded positive results meaning each sample contained 10 parts per billion (ppb) carbendazim or more.

Each sample represents one shipment and a single shipment is likely to involve several thousand liters of orange juice or orange juice concentrate. All 30 shipments that tested positive have been detained and/ or refused entry into the US. Of the 30 samples containing carbendazim, 12 were from Canada, 14 from Brazil, two from Costa Rica and one each from the Dominican Republic and Poland, according to the FDA.

The levels of carbendazim reported in positive samples appear to be the result of application of the fungicide on orange trees. Carbendazim is approved for such use in Brazil and several other countries, but not the US. Carbendazim in orange juice is an unlawful pesticide chemical residue under the 'Federal Food, Drug, and Cosmetic Act'. The FDA has been coordinating closely with the Environmental Protection Agency (EPA), the US agency responsible for evaluating the safety of pesticide residues in human food. Based on the EPA's conclusions from its preliminary risk assessment, consumption of orange juice with carbendazim at the low levels reported does not raise public health concerns. The World Health Organization (WHO) classifies carbendazim as 'unlikely to present hazard in normal use' (WHO 1999).

According to the public record, the FDA has notified the Juice Products Association that it does not intend to take enforcement action to remove orange juice containing the reported low levels of carbendazim from domestic commerce. In the interim, the FDA reports continued sampling import shipments of orange juice. Moreover, the FDA has announced it will deny entry to shipments that test positive for carbendazim.



To ensure the continued safety of orange juice, the FDA has reported it will continue to monitor orange juice and concentrate shipments, and if it identifies orange juice with carbendazim at levels that present a public health risk, the Agency will alert the public and take the necessary action to ensure that the product is removed from the market.

Reportedly, the top four sources of orange juice imported into the US are Brazil (15 million gallons), Mexico (13 million gallons), Costa Rica (5 million gallons) and Belize (2 million gallons). Mexico and Costa Rica have established regulations and legislation that allow carbendazim use on citrus crops including oranges.

The European Union has established maximum residue limits (MRLs) for carbendazim in citrus fruit ranging between 100 ppb and 700 ppb. For oranges and grapefruits the MRL is 200 ppb, and for lemons, limes, and mandarins the MRL is 700 ppb. Canada has also established tolerances for carbendazim and a related substance thiophanate methyl in 22 fruits, including oranges, and vegetables with MRLs ranging from 500 ppb in cucumbers and melons to 6000 ppb in raspberries and boysenberries.

In the absence of affirmative regulations allowing the use of carbendazim and confirmation of no adverse health effects (tolerance) associated with the consumption of carbendazim-tainted orange juice, the FDA and EPA are compelled by current US law to disrupt trade and cause concern among the orange-juice-consuming public about the safety of the US orange juice supply. While the FDA has not seen the need for enforcement action to remove carbendazim-positive products from the US marketplace, it has on the other hand quarantined and/or prohibited entry of all carbendazim-positive shipments into the country.

Are orange juice and orange juice containing products contaminated with carbendazim, at the levels reported by the FDA, safe for human consumption? It appears that among the nations involved with this incident there is no consensus about the safety of tainted juice. It is somewhat ironic that the US regulatory agencies (FDA and EPA), responsible for overseeing the safety of the US food supply, have gone to great lengths to make it clear they do not believe public health is threatened by these products. However, it must be acknowledged that despite these best efforts, the consuming public is at best confused about the safety of orange juice with respect to carbendazim. Another direct effect of this situation is the dramatic increase in the price of orange juice, which resulted from FDA enforcement actions diminishing the supply of orange juice in the US market.

Scientists from Mexico, the European Union, Canada and Costa Rica have evaluated carbendazim, and their respective governments have promulgated the maximum residue levels for orange juice, which they believe to be consistent with preserving public health. In this day and age, it is difficult to conceive the toxicological methods used by these scientists in making their assessments would be different, in any meaningful way, to those employed by EPA scientists conducting an identical evaluation. Science is science. Harmonized legislation and regulations, in this particular matter, would have avoided loss of confidence by consumers in the US agencies involved, and disruption in trade and commerce.

GHI have long advocated sound-science as a basis for food safety regulations and legislation worldwide. If you are interested in joining a Working Group on carbendazim in citrus fruit juices, to eliminate such harmful differences in food safety regulations between countries, send a message to info@globalharmonization.net.

Larry Keener is President and CEO, International Product Safety Consultants Inc., Seattle, WA USA and Vice-President of the Global Harmonization Initiative (GHI).

References

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2. <http://www.fda.gov/Food/FoodSafety/Product-SpecificInformation/FruitsVegetablesJuices/ucm288004.htm>
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4. <http://www.ift.org/food-technology/daily-news/2012/january/31/fda-finds-carbendazim-in-some-orange-juice-from-canada-brazil.aspx>
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Chemicals and health thought for food

Jaap C. Hanekamp

Roosevelt Academy, Middelburg, The Netherlands
Chair GHI Working Group Chemical Food Safety

A paper on the connection between food and health addresses the restrictive use of and focus on scientific methodology by official regulatory bodies such as the European Food Safety Authority (EFSA), concluding that it hinders nutrition research. This is serious as it blocks globally scientific and industrial innovation for the benefit of public health. Limiting scientific methodology *a priori* impedes scientific and industrial innovation, might well hinder human health, and carries a contradiction that makes all regulatory efforts and advice related to food and health immaterial.

In toxicology and pharmacology, solutions are available that can continue to elucidate in increasing detail the connection between food and human health. For the successful harmonization of food regulations, scientists and regulatory agencies across the globe should step away from methods-driven science and, instead, focus on the problems at hand and ahead, choosing or developing methods as needed. Scientific methods, both as the observational base and epistemological standards, are transformed over time with the explicit aim to reveal the structure of reality, which science does best. So-called gold-standards in scientific methodology stifle scientific work. Overall, we should be weary of the 'man of one method' (or one instrument), both experimental and theoretical. He tends to become method-oriented rather than problem-oriented. The method-oriented man is shackled; the problem-oriented man is at least reaching freely toward what is most important. Strong inference re-directs a man to problem-orientation but it requires him to be willing to put aside his last methods and teach himself new ones, repeatedly, as Platt remarked in his revalued science paper on eliminative inference, with the kind of reasoning most famously is associated with Sherlock Holmes.

Method-approach science is also widespread in the issue of low-level presence of regulated chemicals such as antibiotics and pesticides, whereby safety-issues are reduced to detectability and linear toxicological models. In 2001, as a means to address these obvious shortcomings, a one-day conference was organised, *Food Safety versus Food Security – A Global Challenge*. The main question was how to enhance food security for a growing world population in the context of the presence of low-levels of pesticides and antibiotics residues and/or contaminants in food from multiple sources.

This requires the prevention and reduction of foodborne illnesses, increased global market accessibility of food and reduced food losses to be addressed. To reduce food losses, it would be helpful if worldwide international standards for food safety issues were accepted for residues of pesticides, veterinary drugs and contaminants from natural and industrial origins, based on sound science, rather than the detection levels of analytical methods. Pesticides and antibiotics are means to reduce food losses caused by pests and disease, including those affecting human health. These chemicals will continue to play an essential in increasing food availability worldwide. The question of food safety and food security in relation to low levels of residues and contaminants can only be answered adequately when evaluated by different research disciplines. Questions include the toxicological relevance of low levels, consumer perception, effective communication with the consumer about new insights with respect to the presence and effects of low-levels of chemicals, the effect of multiple biogeochemical sources of regulated chemical compounds on establishing safe levels, toxicologically and legally, analytical potential to monitor low levels in the context of multiple sources and food legislation, and the impact of setting limits on the losses of food. In this context, it is worth noting that over the last few decades (i) analytical capabilities have improved; (ii) insights into the biogeochemical processes have increased, increasing the probability 'that previously regarded man-made chemicals have a natural background as well'; (iii) new insights into the health-consequences of low-level exposures have come to the fore, and (iv) public and political acceptability with respect to the presence of 'suspect' chemicals has greatly diminished.

The goal of the multi-disciplinary symposium was to produce a paper assessing future of global food-safety regulation with respect to the issues and developments described. To ensure productive preparation and discussion, participants were requested to submit 1500 words (not including references) before the meeting considering the following issues (in random order):

- Potential of analytical chemistry
- Food chemistry (natural 'contaminants')
- Toxicology of low-level exposures
- Future of food-production and food security
- Use of veterinary pharmaceuticals in food production
- Legal contours for future global legislation

The meeting was successful, and the results will be published in a series of articles in a special issue on food safety and security.

The GHI Ambassador for Lebanon, Dr Atef Idriss, together with several colleagues, has written a very interesting report about food security, which links to the GHI book "Ensuring Global Food Safety - Exploring Global Harmonization". The full report can be downloaded from the GHI website (www.globalharmonization.net/idriss2012), the abstract follows here:

Food Security, the Moving Borders of Poverty, Free Markets and Political Interventions

*Atef Idriss¹, John Lupien²,
Imtithal Sheet¹ & Hala Romanos¹*

¹MENA Food Safety Associates (MEFOSA), LEBANON

²University of Massachusetts, United States
and FAO Food and Nutrition Division, Rome, Italy

Food security is a multi-faceted concept, variously defined and interpreted.

At one end of the spectrum food security implies the availability of adequate supplies at global and national level; at the other end, the concern is with adequate nutrition and well-being.

Respecting policies constraints specific to domestic markets, many countries are still uncertain whether regional trade integration would enhance their national food security status. Despite opportunities for mutually beneficial cross-border trade, some countries impose export or import barriers in times of food shortages, in an effort to protect domestic producers or consumers. Food security is ultimately affected by a wide range of interventions that operate on many different types of sub-systems. Improvements in many different areas can ultimately improve the availability, affordability and sustainable access to food.

Food security interventions can be divided into those that help prevent (ie. governance reform and pro-poor growth policies); treat (i.e. social protection) or help households better manage (ie. better financial markets, food storage, activity diversification) the risk of food insecurity. Public Private Partnerships facilitated by academia and monitored by Civil Society must address the balance of the effort that is invested in measures aimed at "preventing", "treating" and "helping households better manage" food insecurity. Support should be provided to strengthen the analytical capabilities of these assorted "food security" policy analysis bodies. Several of these organizations are quite new, and they will need to build competence and capability quickly if they are to play an effective role in the public policy debates. Eradicating food insecurity makes good economic sense.

Food insecurity reduces the ability of those affected to learn, weakens disease resistance, hampers work productivity, and limits the ability to innovate and participate in economic progress.

At a national level, food insecurity is intimately linked to political instability and the disempowerment of the poor.

PEOPLE, PLANET, PROSPERITY and THE FOOD CHAIN

Katherine Flynn, SAFE Consortium

Like GHI, 'People, Planet, Prosperity and the Food Chain' (P3FC) is a project run entirely by volunteers with no special funding. It is a labour of love by those who believe in its message: nutritious, healthy "good" food can be produced in a way that does not damage our environment or exploit our fellow humans, and this food can be made easily accessible to all people at prices they can afford. Really it is a simple message and one that many of us instinctively support.

Our goal is not only to spread the P3FC message to the food industry, but to also repeat the message over and over so that, as with effective advertising, our 'product' will become a part of food industry culture. We aim to do this by publishing in industry trade journals *on a regular basis*, i.e. at least one article in one journal every month and several different articles in several different journals in any given month when possible. Our articles or essays are by different authors; anyone in any way associated with food, and they have recently appeared in Food Safety Magazine, Food & Beverage International and New Food. The articles are always in the same location in the journal, and they always have an "information box" identifying them as P3FC products and re-stating the P3FC message – as I said, we believe repetition will get the message across. For the moment, we are only in industry journals, but we have plans to expand to consumer magazines in the coming year or two.

All of our authors chose their own topic; we have published on turning food industry waste into value, food safety challenges in the current economic climate, and responsibility for good nutrition among several other topics. The P3FC Editorial Team has members from business schools, research centres, technology companies, industry and non-profit groups. Really, anyone with any interest in seeing good, nutritious food, produced without harming food workers or the environment, and easily available to all can participate in P3FC.

Are you interested in sharing your thoughts on how to produce “good food” with the food industry? Would you especially like to see your ideas in print? Why not contribute to P3FC? Send a draft of your article (up to approximately 1000 words and you may include a picture) to me, the P3FC Lead Editor, at katherine.flynn@safeconsortium.org today. The article will go to our Editorial Team for review and will probably be published within a few months of receipt. I look forward to welcoming many of you as P3FC authors.



Dr Katherine Flynn is the Scientific Secretary of the European Association for Food Safety, the ‘SAFE consortium’, a member of GHI and the Lead Editor of P3FC. She has a PhD in Biology from the City University of New York, has taught food-related courses as an Assoc. Prof. in both US and European universities, has undertaken research for both US and European government agencies, and has published original research as well as a P3FC article.

Short report on the 7th Nutra-India Meeting, Bangalore, 15-17 March 2012

This is a short report on a successful summit with almost 400 participants, where GHI played an important role. Many industries were represented and leading scientists from all over the world participated in the meeting.

1. Regulatory (India)

The session on Regulations for Nutraceuticals in India was a well attended, and focussed on suggestions for changes to the proposed regulations, which had been prepared under the Chairmanship of Dr Prakash. The suggestions have been conveyed to the Indian Government in a special meeting on 28th March 2012 and the completed regulations will be released soon.

2. Regulatory (Global)

This session was chaired by Dr Prakash, and with respect to international regulations and their harmonization, it was felt important that traditional epidemiological data are considered in scientific assessments. Also, to protect the consumer, a global list of ingredients, which for food safety reasons, must not be included in human foods should be developed, and it was suggested that GHI take this forward.

3. Working Group on Nutrition for GHI

In a separate meeting, chaired by Dr Prakash, the initiation of a ‘GHI Working Group on Nutrition’ was deliberated. It was concluded that such a WG is needed because of the many issues in this field, and will start with the following members:

- Dr Prakash (Chair)
- Dr Lekh R. Juneja (Japan)
- Dr Rickey Yada (IUFoST)
- Mr Kumar Bhatia (India)
- Dr Dilip Ghosh (Australia)
- Prof. Dr. Jamuna Prakash (Executive Committee Nutrition Society of India)
- Dr Anne Perera (New Zealand)
- Dr Ndossi (IUNS Council member, Tanzania)

The meeting ended with a vote of thanks to the Chair and Prof. Huub Lelieveld whose initiatives in GHI make it possible to have worldwide impact on regulations.

V. Prakash, 16 April 2012.

Short report of GHI WG Mycotoxin meeting in St Petersburg, 23rd April 2012

The meeting was held on the occasion of the NEEFood 2012 conference. Participants of the WG Mycotoxin meeting came from Germany, Iran, Netherlands, Romania and Russia.

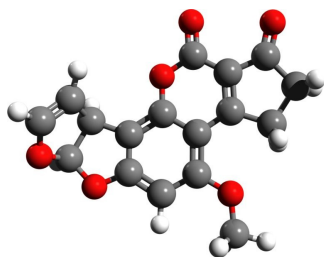
Project proposal

Harmonised mycotoxin regulations would make it possible to implement measures to reduce the global mycotoxin problem. It is one of many efforts needed to address the problem. The decision to organise a meeting focused on reducing the problem of mycotoxins rather than focussing on mycotoxins analysis was made during the EFFoST 2011 meeting in Berlin, where the size of the problem with mycotoxins was discussed. This led to a first-draft project proposal by Prof. Naresh Magan, which was discussed in St Petersburg.

The decision to organise a meeting focused on reducing the problem of mycotoxins rather than focussing on mycotoxins analysis was made during the EFFoST 2011 meeting in Berlin, where the size of the problem with mycotoxins was discussed.

This led to a first-draft project proposal by Prof. Naresh Magan, which was discussed in St Petersburg.

This draft gives an accurate introduction of the global mycotoxin issue and suggests objectives, namely (1) quantification based on mould type and current losses in staple foods, (2) establishing experimentally the influence of climate changes of the production of mycotoxins by key spoilage fungi, (3) simulation scenarios to study the impact of climate changes on yield, quality and predominant mycotoxins using a selection of staple crops, (4) determination of the relative risk (low vs high) from existing in model systems.



Several additional objectives were suggested during the meeting. Using the results obtained (1-4, above) harvesting methods might be developed, and conditions established for transport and storage, enabling the control of relevant fungi. Another objective could be the removal of mycotoxins from contaminated food products by either lactic acid bacteria, adapted to mycotoxins (e.g. strains that need aflatoxin as nitrogen source selected in continuous culture with aflatoxin as the sole nitrogen source) or the production of low-cost mycotoxin-destroying enzymes. Although mycotoxins are also toxic to animals, few live long enough to develop the diseases associated with consumption of mycotoxin-contaminated feed. Thus, in principle, such produce might be used as pet food or feed for other animals, which are not intended for human consumption.

It was, however, agreed that the first step should be a thorough inventory of available knowledge, not only from scientific literature but also from incident reports and company experience. Finding measures that failed to reduce mycotoxin contamination is also important, as it will reduce wasted time and effort. Finally, all members of the WG are invited to investigate what regional funding may be available.

The full report from the meeting may be obtained from Prof. Mark Shamtsyan, co-chair of the WG Mycotoxins (mark.shamtsyan@yandex.ru and shamtsyan@yahoo.com).

Huub Lelieveld, 3 May 2012

Meeting Announcement: GHI Meeting Las Vegas, Nevada June 27, 2012

Come one, come all!

GHI will convene a meeting to coincide with the **IFT annual meeting and Expo**, Las Vegas, Nevada on June 27, 2012. The meeting will be held in the **International Lounge** commencing at 11:30 AM. It is anticipated that the meeting run for approximately 90 minutes. Participants will receive an update on the progress of GHI's various working groups. The status of the ambassador program will also be discussed. GHI's leadership will update participants on future plans and meetings. Dr. Oh will briefly discuss plans for the 2012 GHI General Assembly meeting in Brazil. A proposal for the development of GHI's second book, an initiative lead by Dr.

Prakash, will also be reviewed. Attendees will have opportunity to provide recommendations for the proposed book as well as volunteer as a potential contributor.

Huub Lelieveld, GHI's President, will provide an update on the progress with GHI Financial. This will be a short but productive meeting and we anticipate your contributions to its success. Join us on June 27th in the International Lounge at 11:30 AM.

Larry Keener

Meeting data template

We are keen to announce relevant meetings in the GHI Newsletter and on the GHI website. But, to be able to do so, appropriate information is needed. The template below can be copied, pasted into email and sent to Dr Aleksandra Martinovic (aleksandram74@gmail.com), GHI Meetings Coordinator and GHI Ambassador for Montenegro.

Full name of the event:

Details of location:

Name venue:

Street and number:

Town:

Province or state:

Country:

Web page:

Start date and time:

End date and time:

Website of the event

Titles of GHI activity*:

Start date and time of GHI activity

End date and time of GHI activity

GHI officers or members involved:

Names:

Email addresses:

Phone numbers:

*e.g. presentations, posters, working group meeting

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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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