



# WHO Global Foodborne Infections Network UPDATE

## Detection of a *Salmonella* Outbreak in Guangdong Province, China

Issue 3  
January 2011



A network building capacity globally to detect, to control, and to prevent foodborne and other enteric infections from farm to table

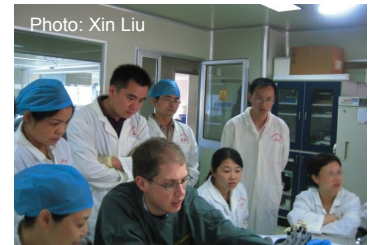
### WHO Global Foodborne Infections Network (GFN)

GFN conducted a training course in May 2009 in conjunction with the Chinese Center for Disease Control and Prevention (China CDC), Guangdong Provincial Center for Disease Control and Prevention (Guangdong CDC), and the United States Centers for Disease Control and Prevention (US CDC, specifically the International Emerging Infections Program, Division of Laboratory Systems, and Enteric Diseases Laboratory Branch). This course provided training on laboratory quality management and *Salmonella* isolation and identification to microbiologists from



hospitals and counties within Guangdong Province. GFN technical experts optimized laboratory methods for the isolation of *Salmonella* and trained participants on the GFN biochemical protocol for the identification of *Salmonella* and *Shigella*. Using the new isolation and identification methods, participants reported dramatic increases in isolation rates of *Salmonella* spp. The Guangdong CDC facilitated the transport of the specimens and pulsed-field gel electrophoresis (PFGE) of the isolates, identifying several isolates as *Salmonella* Typhimurium indistinguishable by PFGE. These Typhimurium isolates

prompted an ongoing investigation by the Guangdong CDC and China CDC. This cluster of cases, detected by laboratory-based surveillance and the diligence of our Chinese colleagues, illustrates the impact that can result from strong partnerships and effective training.



## GFN 10th Birthday Celebration

GFN celebrated its 10th birthday at the Hyatt Regency Atlanta, GA, USA, on July 12, 2010. One hundred people celebrated the network and its accomplishments from over 10 years. The celebration was also meant to thank existing partners for their extensive support and to engage new partners in further future expansion of GFN. Dr. Danilo Lo Fo Wong welcomed those at the gathering; there were light appetizers, followed by a 'GFN Birthday Cake'. Who's who of foodborne diseases from around the globe were present at the occasion.



## 2010 GFN Stakeholders and Strategic Planning Meeting

The 2010 GFN Stakeholders and Five Year Strategic Planning Meetings were held from August 26-28, 2010 in Copenhagen, Denmark at The Danish Technical University - Food. More than 70 participants attended the Stakeholders Meeting which focused on past achievements and lessons learned and how GFN and other institutions can partner, among other topics. Fifty participants attended the GFN Five Year Strategic Planning Meeting.



The agenda was to update the vision and mission for the network and to set new five year goals. Reports on both the meetings and Strategic Plan will be released by WHO in January 2011.



### Inside this Issue

- [Salmonella outbreak in Guangdong, China](#)
- [GFN 10th Birthday Celebration](#)
- [2010 GFN Stakeholders and Strategic Planning Meeting](#)
- [Training Highlights](#)
- [Country Databank \(CDB\)](#)
- [Meet a Partner: Dr. Danilo Lo Fo Wong](#)
- [EQAS \(External Quality Assurance System\)](#)
- [Reference Testing](#)

## Training Highlights: Dubai, Moscow & Buenos Aires

Three GFN Courses were held in Dubai, Moscow, and Buenos Aires between February and June 2010.

- The GFN Course in Dubai, United Arab Emirates was held from February 28 – March 2, 2010 and was conducted at Dubai Municipality's Training Facility. The course focused on surveillance, outbreak detection and response, and environmental assessment. There were 51 participants including food inspectors, food microbiologists, and professionals from the food industry. The majority of the participants were from Dubai Municipality.
- The GFN Course in Moscow, Russian Federation was held from May 31 - June 4, 2010. This course included microbiologists and epidemiologists from the Russian Federation, Kazakhstan, Tajikistan, and Uzbekistan and focused on improving foodborne disease surveillance, outbreak investigation, and work on antimicrobial resistance. The microbiologists were provided an applied review of *Salmonella* isolation, identification, serotyping, and antimicrobial susceptibility testing, while epidemiologists worked through a four day case-control study exercise (learning how to use Epi Info in Russian as a data management and analysis tool).
- The GFN Course in Buenos Aires, Argentina also took place from May 31- June 4, 2010. This was an advanced workshop for microbiologists and epidemiologists from South America. The course focused on molecular subtyping, attribution, and antimicrobial resistance of foodborne pathogens. This course was held in conjunction with the PulseNet Meeting in Latin America.

For training course information contact Heena Joshi: [glv8@cdc.gov](mailto:glv8@cdc.gov)

## Country Databank

The Country Databank (CDB) is an open access database that can be navigated and explored by food safety and public health professionals from all over the world. It has >1600 members from 180 countries. The CDB also includes 1081 datasets from 84 countries on

*Salmonella*, representing more than 1.5 million isolates of human origin and more than 400,000 of non-human origin. GFN is currently working on a new end-user interface that will allow interested parties to search the databank more easily, and to be able to accurately capture trends of serovars in time and place. The CDB is a unique tool that enables anyone to obtain a global perspective of *Salmonella* epidemiology.

For CDB information, contact: Susanne Karlsmose: [suska@food.dtu.dk](mailto:suska@food.dtu.dk)

## Meet a Partner

Dr. Danilo Lo Fo Wong obtained his MSc in biology from Wageningen University, Netherlands, and his PhD in Veterinary Epidemiology from the Royal Veterinary and Agricultural University, Copenhagen, Denmark. His work experience includes time spent as an epidemiologist and risk assessor at the Danish Zoonosis Centre where he focused his work on surveillance of foodborne pathogens and diseases, microbial risk assessment, and antimicrobial resistance in bacteria of animal origin. He served on various task forces and working groups for EUROSTAT and the European Food Safety Authority (EFSA) and was a senior member of the EFSA Zoonosis Collaboration Centre charged with the preparation of the Community Summary Report on trends and sources of zoonoses, zoonotic agents, and antimicrobial resistance in the European Union. Since the inception of GFN, he has served as a Steering Committee Member and trainer. In 2007, he joined the Department for Food Safety and Zoonoses at WHO in Geneva, as coordinator of GFN. Dr. Lo Fo Wong is a board member of the Marie-Curie Early-Stage Research Training Programme (EST) on Training Risk Assessment in Non-human Antimicrobial Usage (TRAINAU), Denmark, and a member of the editorial board of the international peer-reviewed journal 'Foodborne Pathogens and Disease'. He has given numerous lectures on these and related topics at international conferences, workshops, etc. Dr. Lo Fo Wong is married and has two children.

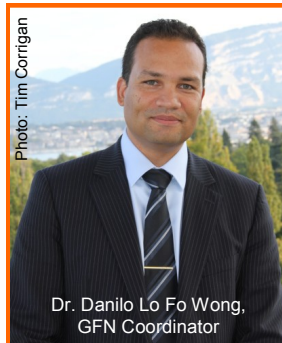


Photo: Tim Corrigan

Dr. Danilo Lo Fo Wong,  
GFN Coordinator

For newsletter information, contact Stephanie DeLong at: [snd7@cdc.gov](mailto:snd7@cdc.gov)

## EQAS (External Quality Assurance System)

To support laboratories' participation in GFN, an External Quality Assurance System (EQAS) was established in 2000. The goal of this program was to assess the quality of *Salmonella* serotyping and antimicrobial susceptibility data produced by Member States and to enhance the reliability of this data by identifying areas which could benefit from additional support. The program was expanded in 2003 to include other foodborne pathogens. Since that time, the number of participants submitting data to one or more components of EQAS has increased from 44 laboratories in 2000 to 180 laboratories in 2009.

GFN has set a goal of having all national reference laboratories perform *Salmonella* serotyping with a maximum of one deviation out of eight isolates tested (error rate of 13%) and susceptibility testing with a maximum error rate of 10%. Individual laboratory results are kept confidential and are known only to the participating laboratory, the EQAS Organizer (DTU Food), and the respective GFN Regional Centre. All summary conclusions are made public.

For EQAS information, contact: Rene Hendriksen: [rshe@food.dtu.dk](mailto:rshe@food.dtu.dk)

## Reference Services and Fellowships

Since 2000, 31 national/regional projects have been carried out between GFN Members and reference institutions from the GFN Steering Committee. These projects were based on analysis of isolates, surveys, and other information, and/or data from various parts of the world. From the projects, more than 25 articles have been submitted and/ or published with authors from all regions of the world. Antimicrobial susceptibility testing, pulsed-field gel electrophoresis, PCR, and sequencing are some of the specific laboratory methods carried out to obtain data for analysis of the isolates.



In addition to reference services projects, more than 30 scientists have visited one of the GFN reference institutions for a fellowship, receiving tailored hands-on training for periods from one week up to one year. Through these opportunities, GFN stimulates scientific development and international collaboration.

For reference services information, contact: Rene Hendriksen: [rshe@food.dtu.dk](mailto:rshe@food.dtu.dk)