

Viral and Parasitic Foodborne Diseases PDG

Members Present: Stephen Grove, Sarah Markland, Don Zink, Alejandro Amezcuita, Jennifer Cannon, Franck Chatigny, Doris D'Souza, Kirsten Hirneisen, Marlene Janes, Tineke Jones, Kalmia Kniel, Benoit Lebeau, Alvin Lee, Fabienne Loisy-Hamon, Naim Montazeri, James O'Donnell, Alma Perez-Mendez, Adrienne Shearer, Diana Stewart, Qing Wang and May Yeow.

Board/Staff Member Present: Don Zink.

New Members: Brian Miller, Otto "Chip" Simmons, Geoffrey Morrell, Beatriz Quinones, Jennifer Holtzman, Sarah Cahill, Joe Meyer, Yaoxin Huang, Lee-Ann Jaykus, Mu Ye, David Kingsley, Precious Heard, Qiuhong Wang, Kevin Smith, Elisabetta Lambertini, Dave Alberty, Dan Pedersen, Chi- Ching Lee, Atin Datta, Polly Courtney and Allen Saylor.

Visitors/Guests: Analiesel Hannes, Jennifer Shields, Grace Tung, Kelly Probasco, Blanca Escudero-Abarca, Saeed Hayek, Erol Gazi Hisoglu, Yuewei Hu, Julie Borders, Vanessa Chandra, Gregory Pluime, Snehal Joshi, Joanne Ruebl, David Luedeke and Janet Zhang.

Meeting Called to Order: 1:03 p.m., Sunday, July 28, 2013.

Recording Secretary of Minutes: David Kingsley.

Welcome and Introductions:

Stephen Grove, PDG Chair; Marlene Janes, outgoing PDG Chair; and all attendees present.

Report from IAFP Executive Board: Don Zink reported a record IAFP attendance with 2700+ registrants and 3 new PDGs holding organizational meetings. PDGs are strongly recommended to partner with other PDGs on symposium proposals, and to ensure those proposals are detailed and show timely impact.

Old Business: The 2012 PDG meeting minutes were approved with no changes, and responses to the Executive Board recommendations were briefly discussed.

New Business: Tracy Duvernoy, FDA-CORE, gave an update on recent viral and parasitic foodborne disease outbreaks. Since January 2012, 33 outbreaks have been investigated by FDA, and of those one norovirus outbreak was recorded, involving the consumption of contaminated raw oysters imported from Canada and consumed in California.

An ongoing hepatitis A outbreak has been linked to consumption of an antioxidant frozen berry mix containing pomegranate seeds. To date, 153 people have been confirmed ill, with 66 hospitalized, and hepatitis A virus genotype 1b has been isolated from clinical samples. To date, no food samples have tested positive. The source of the outbreak has been epidemiologically linked to pomegranate seeds imported from

Turkey, and two import alerts on the importing company have been initiated by FDA. The group discussed the heavy handling and large volumes of water involved in extracting seeds from pomegranates as two possible routes of contamination in this outbreak. The issue of viral contamination in imported foods, and particularly berries, may be an interesting topic for a symposium next year.

An ongoing *Cyclospora* multistate outbreak has caused 321 cases, and suspected to be linked to contaminated fresh produce. This is the first *Cyclospora* outbreak recorded by FDA in several years. The investigation is ongoing, and the PDG members were encouraged to check the FDA Web site for future updates.

Lee-Ann Jaykus, North Carolina State University, presented an update on the USDA-NIFA NoroCORE project. The major initiatives of the project include work to develop cultivation methods for norovirus; investigate common and emerging surrogates, and to develop an education and extension program focused on enteric viruses.

The difficulties in choosing an appropriate surrogate were discussed; the range in responses to various treatments of candidate surrogates means that an ideal norovirus surrogate to be used in a variety of situations may not exist. The lack of suitable diagnostic tools for commercial use in the U.S. is a challenge, and the difficulties of detecting viruses in foods have led to an interest in swabbing food contact surfaces for viruses instead.

Risk models based on vomiting events are under development, and control measures based on novel food processing methods and hand sanitizers are under investigation. A huge part of the project focusses on extension and outreach; with graduate programs for a minor in food virology under development, and fellowships available for graduate and undergraduate interns. A literature database has also been developed and available on the NoroCORE Web site.

A call for volunteers for the vacant Vice-Chair position in the PDG was made. David Kinsley, USDA-ARS, was the single volunteer, and elected to the position by the PDG.

Virus- and parasite-related presentations at IAFP 2013 were highlighted in a list prepared by Sarah Markland, PDG Student Liaison, and distributed to the group. The PDG- sponsored symposium on NoroCORE was outlined, and members were encouraged to attend.

The group discussed ideas for the 2014 Annual Meeting program, including the following:

- The challenges of using norovirus surrogates in research (Gary Richards).
Difficulties in validating surrogates; pros & cons of volunteer studies; where do we go from here?
- Hepatitis A virus in berries, sundried tomatoes and other produce (Nigel Cook, David Kingsley and Stephen Grove).
Lessons learned from recent large and widespread European and U.S. outbreaks; EU methods for detection; impact of globalization of food supply; should discuss with Communicable FBD PDG for collaboration.
- Update on Toxoplasma (Nathan Bauer).

Survey data from pork, lamb and horse meat; occurrence in free-range animals

- Advances in norovirus detection (Alvin Lee).
What is the effect of inactivation technologies on detection? Do processing interventions improve or hinder our ability to detect viruses in foods, and how might this impact the food industry?
- Exotic & emerging foodborne disease issues (David Kingsley).
Updates in our knowledge of Aichi virus, hepatitis E virus, and other emerging foodborne diseases. Zoonotic norovirus – is there a concern? Detection of ‘orphan viruses’ in fecal samples, and microbiome characterization.

These topics will be discussed in upcoming conference calls, and potential speakers identified. The group will decide if any topics are better suited for a webinar.

Recommendations to the Executive Board:

1. David Kingsley was recommended for position of Vice Chair.

Next Meeting Date: August 2, 2014, at IAFP 2014, Indiana Convention Center, Indianapolis, IN.

Meeting Adjourned: 2:50 p.m.

Chairperson: Stephen Grove.