Viral and Parasitic Foodborne Diseases PDG

Members Present: Stephen Grove (Chair), David Kingsley (Vice Chair), Sarah Markland, Franck Chatigny, Doris D'Souza, John Guzewich, Lee-Ann Jaykus, Julie Jean, Kalmia Kniel, Sarah Markland, Douglas Marshall, Alma Perez-Mendez, Suresh Pillai, Sarita Raengpradub, Adrienne Shearer, Jennifer Shields and Qing Wang.

Board/Staff Members Present: Don Zink.

New Members: Michael Batz, Catherine Carlin, Hsiaoli Chen, Kristine Clemens, Christine Endacott-Palmer, Sharan Lanini, Christina Moore, Ravindra Ramadhar, Otto Simmons, Apostolos Vantarakis and Samantha Wales.

Visitors/Guests: Sophie Butot, Andrea Cipriani, Gabe Keith, Penny Kirsch, Sharan Lanini, Sherri McGarry, Marianne Miliotis-Solomotis, Lisa Olsen, Dan Pedersen, Mehgan Styke, Chun Wang, Qiuhong Wang, Amy Woron and Sophie Zuber.

Meeting Called to Order: 9:04 a.m., Sunday, August 3, 2014.

Recording Secretary of Minutes: David Kingsley.

Welcome and Introductions: Stephen Grove, Chair; David Kingsley, Vice Chair; and all attendees present.

Report from IAFP Executive Board: Don Zink provided the update from the Executive Board, reporting a strong attendance at the IAFP 2014 meeting.

Old Business: The PDG was reminded that the minutes of the 2013 PDG meeting are located on the IAFP Web site for review and no recommendations were made to the Board last year.

New Business:

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 project is now entering its fourth year out of five, and the range of research areas is wide. One recent area of discussion within the stakeholder committee focused on U.S. regulatory issues surrounding use of hand sanitizers in retail food service settings, and avenues to addressing these.

Sherri McGarry, FDA, gave an update on the ongoing *Cyclospor*a outbreak in the U.S., which has currently caused approximately 200 illnesses in 19 states. Majority of cases have been reported in Texas but to date no food commodity has been identified. Outbreak investigation involving FDA, CDC and states, is still ongoing.

Last year's outbreak of hepatitis A virus in the U.S. involved imported pomegranate arils from Turkey, caused 162 illnesses with 71 hospitalized. PDG members discussed possible routes

of contamination and implications for other fresh and frozen commodities, particularly berries.

Michael Batz, University of Florida, updated the group on a recent effort led by FAO/WHO to perform a world-wide risk ranking of foodborne parasites. The group reduced the initial list of 93 parasites down, in order to focus on 23 in detail. Of these, a large focus centered on the top ten, which were ranked in part by effect on international trade and economic impacts of disease, not just disease burden.

Virus- and parasite-related sessions at IAFP 2014 were highlighted and members were encouraged to attend where possible.

Ideas for topics to be covered at the IAFP 2015 meeting were discussed, and include the following:

The complex world of viral metagenomics

- An introduction to metagenomics and how learnings from work with bacteria can be applied to viruses.
- Application to irrigation water, the food supply, and fecal samples of humans and animals.
- Zoonotic issues – what is the impact of detecting these animal viruses and emerging human viruses in the food supply?

Industry-oriented management of viruses

- How to approach the management of viruses in food production and in a food safety system?
- What is the effect of mild and pasteurization processes on human norovirus, and what impact does strain variability play?
- How does the food industry interpret data from using surrogate viruses?
- Effect of sanitizers.
    - Same idea for parasites.

Transferring advances in clinical and public health efforts to detect viruses to the food industry

- With advances in detection of clinical diseases, what pressure does the food industry feel in order to keep up with strategies to prevent transmission of illness?

Hepatitis E virus

- What role does this virus play in disease world-wide?
- Why do rates of infection appear lower in the U.S. than in other countries?
- How should this virus be managed by the industry?

NACMCF document on viruses

- Barriers (utensils, gloves) are vital to preventing foodborne spread.
- Why are spikes of viral illness observed, associated with person-to-person transmission, in winter months, while illnesses linked to food stay stable during the same period?
- Other outcomes of the report, which is due in Fall 2014.

Update on culturing norovirus

- History of the approaches to culturing human norovirus and need for a method.
- Promising research currently underway.
- Collaborative approaches and future outlook.

Toxoplasma gondii

- Promising detection methods and relationship to bioassay (the Gold Standard).
- Increasing demand for free range pork and poultry, and the potential for increasing exposure to humans with contaminated meat.
- Pre-harvest interventions to control Toxoplasma gondii.
- Reports on seroprevalence in livestock and poultry.
- Increasing rates of detection in other animals (horses and cattle).
- Report on current EFSA study on naturally- and experimentally-infected livestock.
- Link between latent infection and neurological disorders.
- Industry perspective from Pork Board, Sheep, Goat, Cattle, etc.

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: None.

Next Meeting Date: July 25, 2015.

Meeting Adjourned: 10:55 a.m.

Chairperson: Stephen Grove.