

Viral and Parasitic Foodborne Disease PDG

Attendees: Julie Jean (Chair), Kristen Gibson (Vice Chair), Adrienne Shearer, Alex da Silva, Alvin Lee, Angela Nguyen, Christine Yu, David Kingsley, Doug Marshall, Jackie Woods, Jim Hartman, Kali Kniel, Laura Ewing, Mauricio Durigan, Naim Montazeri, Patrice Bonny, Pushpinder Litt, Sarah Jones, and Sarita Raengpradub.

Board/ Staff Present: Michelle Danyluk and Dina Siedenburg.

Number of Attendees: 19.

Meeting Called to Order: 10 a.m. Eastern Time, Wednesday, June 30, 2021.

Minutes Recording Secretary: Kristen Gibson.

The meeting was called to order by Julie Jean (Chair). Julie introduced herself and welcomed everyone. All attendees were invited to introduce themselves. Then, Julie gave an overview of the agenda.

Old Business: The minutes from IAFF 2021 PDG meeting were approved with no modifications. Julie reviewed accepted sponsored or co-sponsored proposals including symposia and roundtables. There was also a note about numerous posters and technical sessions that will be presented and are relevant to the Viral and Parasitic Foodborne Diseases PDG.

New Business: Two main topics were on the agenda: *Update on viral foodborne diseases:* It was discussed that most of the virus updates in the past year centered around whether or not SARS-CoV-2 is transmitted by food with the consensus being not likely. David Kingsley mentioned that there were updates on the prevalence of foodborne viruses in berries (FDA surveillance). Kristen Gibson also noted a few publications addressing prevention and control of foodborne viruses in berries and low-moisture foods. The impact of the COVID pandemic on the reporting of norovirus outbreaks was also noted and possibly further substantiates the role of food handlers/food service settings in norovirus outbreaks

Update on foodborne parasitic diseases: (Alex Da Silva...no comments) Alex Da Silva mentioned that there were not many updates on foodborne parasites. There is an ongoing recall of blueberries that tested positive for *Cyclospora* based on analysis by CFIA. However, there is nothing posted on the CDC website or any indication that people have become sick because of the blueberries. The group also discussed that most often there is a focus on *Cyclospora* at IAFF, though this is not the only foodborne parasite of concern especially when taking an international perspective.

Alex Da Silva also discussed a few relevant symposia offered at IAFF 2021. He said that the FDA Core will cover all the outbreaks of *Cyclospora* that have occurred in recent times. There will also be good info about epidemiological work/investigations that have been conducted for those outbreaks discussed. Detection of protozoan parasite in the environment is also the topic of two symposia with most of the emphasis on *Cyclospora* and some on *Cryptosporidium*. The main reason for the focus on environmental detection is related to traceback work during *Cyclospora* outbreak investigations which has triggered a lot of discussion about how to utilize genetic matching and create a system to link environmental findings with clinical samples. This is not easy to do with a 44mb genome combined with an organism that cannot be propagated in the lab.

In preparation for IAFF 2022 in Pittsburgh, PA, July 31 to August 3, 2022, roundtable and symposia topics were suggested and discussed:

Issues related to detection of RNA versus infectious virus particles was suggested by Kali Kniel. This was specifically in reference to SARS-COV-2 and detection of RNA on food packaging and the impact on international trade. There seems to be different messaging (depending on the country) about the importance of RNA findings. To expand the topic, the symposium may consider diagnostic testing and look across the supply chain. Doug Marshall indicated that the Seafood PDG held

a webinar about SARS-CoV-2 in the supply chain that was very good. This is an interesting issue regarding the inclusion of SARS-CoV-2 in IAFP programming as it is not foodborne, but there needs to be a more international perspective to this and consider importance of SARS-CoV-2 in food-related topics, not just direct contamination of food. Jackie and Alvin mentioned that they would like to be involved in the development of this proposal.

Alex Da Silva added that FDA is supporting surveillance of SARSCoV-2 in wastewater/sewage. One of the motivations behind that is to try and create a strategy to monitor emergence of a new coronavirus strain or strains that have been identified outside the U.S., and that are not yet circulating in the country.

David Kingsley noted that there is a roundtable at IAFP 2021 on frozen produce and norovirus and that he would be interested submitting something again for viruses and berries. Jackie added that the frozen berry assignment at the FDA has been temporarily put on hold due to the pandemic, so perhaps a symposium on the difficulty in characterizing prevalence of viruses in berry supply chain would be good.

Kristen Gibson suggested a proposal related to updates on virus culture models (zebrafish, human enteroids with gene edits, etc.) and how to apply to the food/water/environment research area. David Kingsley and Julie Jean offered to assist.

There was lots of discussion surrounding detection of both parasites and viruses on surfaces. What rapid methods are available? Consideration of the limit of detection is important since viruses are not often present in high numbers on surfaces unless sampled right after contamination with bodily fluid from an infectious person. Is there a way to enrich the target? There is a lot of technology that has come from SARS-CoV-2 research that will be relevant for enteric virus research as well as protozoan parasites. Alex, Mauricio, and Jackie offered to pursue this proposal if of interest to the PDG.

Alex Da Silva asked if there was any interest on the impact of the COVID pandemic on outbreaks of viruses and parasites? FDA and CDC are published an article in MMWR together about the reduction of foodborne illnesses during the pandemic period. The data seems to show that we had a 27% overall reduction. Very unusual year for parasitic and viral foodborne disease outbreaks.

Patrice Bonny suggested a topic on metagenomic sequencing to assess foodborne viruses. In addition, Alvin Lee thought a symposium on the persistence of viruses and parasites in high risks food including low moisture foods would be an interesting topic to pursue.

Future communications for the proposals to be submitted will be done via IAFP Connect. Deadline for symposia, roundtable and workshop proposals is *October 5, 2021*. Also, it was highlighted that webinars are sponsored by the IAFP Foundation and are free for participants.

Recommendations to the Executive Board:

1. Recommend approval of Kristen Gibson for Vice Chair of the Viral and Parasitic Foodborne Disease PDG on May 25, 2021. We recommend that this is approved by the Executive Board.

Next Meeting Date: July 31–August 3, 2022, Pittsburgh, Pennsylvania.

Meeting Adjourned: 11:16 a.m. Eastern Time.

Chairperson: Julie Jean.