

Beverages and Acid/Acidified Foods PDG

Attendees: Nathan Anderson, Elizabeth Andress, Karleigh Bacon, David Bauer, Amanda Beitler, April Bishop, Pardeepinder Brar, Fred Breidt, Alexander Bruner, Danika Burnett, Erdogan Ceylan, Mario Estrada, David A French, Jose Fuentes, Alonzo Gabriel, David Gansemer, Mirijam Garske, Alkmini Gavriil, Leon Gorris, Allen Haas, Barbara Ingham, Keith Ito, Ken Janes, Stephen Kenney, John Larkin, Hui Key Lee, Pushpinder Litt, Kathryn Magee, Sandra McCurdy, Kevin Mo, Zahra Mohammad, Valerie Nettles, Wilfredo Ocasio, Mickey Parish, David Park, Nina Parkinson, Frederic Pastori, Phyllis Posy, Samantha Raccanello, L. Jason Richardson, Jena Roberts, Catherine Rolfe, Paula Safko, Katherine Satchwell, Holger Schoenenbruecher, Guy Skinner, Aaron Uesugi, Robert Yarsulik, May Yeow, Jing Yuan, and Edith Zambrana. **Total Number of Attendees: 51.**

Meeting Called to Order: 1:00 p.m. on Sunday, July 9, 2017 by Fred Breidt.

Minutes Recording Secretary: Barbara Ingham.

Old Business: Fred Breidt introduced Wilfredo Ocasio (Covance) as incoming PDG Chair, and Barbara Ingham (University of Wisconsin) as Vice Chair.

Wilfredo expressed thanks to Fred, on behalf of the group, for his years of leadership of the PDG. The Antitrust

Guidelines were read and the Minutes of the July 31, 2016 PDG meeting were unanimously approved.

Two programs were sponsored by the PDG in 2016: An Overview of Emerging Beverage and Process Technologies; and Small Scale Fermentation: is the Consumer at Risk. Both programs were a success.

Two programs are sponsored by the PDG in 2017: July 7–8: Characterization and Identification of Spoilage Causing Fungi offered as a hands-on workshop and was said to have been 'excellent.'

July 10: Developments in Mycotoxin Research: From Methodology to Prevention (S04).

PDG members are encouraged to attend the Monday session.

Mickey Parish gave the IAFP Board report to the PDG.

New Business: PDG members proceeded to work through the lotus blossom parallel brainstorming to generate ideas for future programs to sponsor. Four topics rose to the top, of which three were more fully developed. The four are:

1. The challenge of challenge studies
 - a. Format: symposium
 - b. Sponsors: Jena Roberts (Novalyze), and May Yeow.
 - c. Topics/speakers:
 - i. Best practices (case studies) and how to practically apply NACMCF guidelines (F. Breidt, B. Ingham).
 - ii. What do I really do? An industry perspective (Leon Gorris – Unilever).
 - iii. Getting to 'yes'. Regulatory perspective on challenge studies. (Susan Brecker, FDA)

(Brainstorming: STEC selection, how to choose cultures for challenge studies, how to design a VALID challenge study for cold-filled acidified foods; key considerations with cold-filled challenge studies, food-based antimicrobials and study design, grouping products to reduce number of studies,

scientific justification of 3-logs vs 4-logs vs 5-log reduction of pathogens, Help! For small-scale processors, balancing microbial inactivation and quality deterioration in processed fruit juices, publishing guidelines; role of trade groups and consortia; funding testing or new ways of testing)

2. Real world validation practices and protocols – How do I really get this done?
 - a. Format: symposium
 - b. Sponsor: Jason Richardson, Coca-Cola
 - c. Topics/speakers:
 - i. Requirements for studies – Yinqing Ma (FDA regulatory & definitions), Nate Anderson – FDA validation
 - ii. Industry perspective – Jill Costellow, Malcolm Knight
 - iii. Validation framework – Alvin Lee (IFSH)

*In further discussion, it was felt that Topic 2 might be focused on Low-Acid foods, with acid/acidified addressed under the Challenge Studies topic (#1).

(Brainstorming: surrogate use & stability, media trials for validation, requirements for internal studies for FDA/USDA, comparison of pathogen inactivation rates when different acid used for acidification (citric/lactic/etc), validation design in the ever evolving classification boundaries of products, validation based on product grouping acceptance, validation protocols for low-acid juices, process validation for juices: yes or no?, juice validation using surrogate and predictive modeling in low-acid juices)

3. End-to-end considerations to safely produce clean label low acid/acidified products
 - a. Format: Roundtable and/or webinar
 - b. Sponsors: Dave Park, Katie Satchwell
 - c. Speakers or speaker topics: natural preservatives [possible speaker–Niraj Shrestha (Northland Labs)]; marketing and consumer trends; product development/R&D specialist; process engineer/process authority; regulatory; food safety specialist/microbiologist

(Brainstorming: beverage processing platforms: next big technology, how process technologies can enhance clean labeling, effective natural antimicrobials for low acid foods – clean label process, challenges with stability and food safety based on consumer demand (clean label), clean labeling for low-acid and acidified beverages: product, process and packaging considerations, food safety concerns with clean label issues, clean label and impact on the industry, natural antimicrobial compounds in beverages combined with emerging process technologies, what technologies are approved by FDA or ready for approval)

4. Acid Resistant Non-Pathogenic Organisms (not further developed)

(Brainstorming: how non-pathogenic spoilage organisms can affect the safety of acidified food; thermophilic, acidophilic bacteria and process methods to control them; predictive modeling tools available for acid-resistant non-pathogen spoilage control in acid foods such as dressings and sauces; detection methods for acidophilic bacteria; *A. acidoterrestris* and pertinent spoilage organism inactivation; emerging spoilage issues with non-guaiacol forming thermophilic acidophilic bacteria).

Recommendations to the Executive Board:

1. The Board should instruct the Program Committee to prioritize PDG program ideas when developing the Annual Meeting program.
2. PDGs should be alerted when a program idea is submitted by an individual or group (outside of the PDG) that would benefit from PDG affiliation/support.
3. The Annual Meeting program (printed and online) should include sponsoring PDGs. The program App should be searchable to include PDG-sponsored programs, i.e., you can search to find all programs sponsored by the Beverages and Acid/Acidified Foods PDG.
4. PDG Chairs and Vice Chairs should be informed as to the fate of suggested programs; currently this information is only sent to the convenors who may, or may not, inform the PDG Chairs and Vice Chairs.

Next Meeting Date: July 8, 2018, Salt Lake City, UT. Two conference calls will be scheduled, one in August and another in September, to fully develop program ideas prior to the October submission deadline.

Meeting Adjourned: 3:00 p.m.

Print Chairperson Name: Wilfredo Ocasio.