

Advanced Molecular Analytics PDG

Attendees: Karen Jarvis (Chair), Xiangyu Deng (Vice Chair) Jacquelyn Adams, Emelia Adator, Marc Allard, Raghavendra Amachawadi, Angela Anandappa, Ilan Arvelo-Yagua, Uma Babu, Jianfa Bai, Kannan Balan, Pratik Banerjee, Rachel Binet, Laurel Burall, Cheryl Burn, Clara Calvo Alamo, Catharine Carlin, Haifeng Chen, Mike Clark, Rocelle Clavero, Stephanie Colorado, Angel Conde, Yue Dai, Gregory Danzeisen, Corinna Darelus, Francisco Diez, Noemie D'Onofrio, Christophe Dufour, Thomas Edlind, Peter Evans, Patrick Fach, Tony Fishback, Karen Fong, Emily Forauer, Fereidoun Forghani, Mario Gadanho, Balasubramanian Ganesan, Ted Gatesy, Beilei Ge, Zachery Geurin, Jonathan Glynn, Gustavo Gonzalez Gonzalez, Julie Haendiges, Feifei Han, Janette Handley, Christina Harzman, Yingshu He, Yiping He, Joe Heinzelmann, Sunee Himathongkham, Leslie Hintz, Maria Hoffman, Jani Holopainen, Edan Hosking, Laura Howard, Chiun-Kang Hsu, Runze Huang, Tim Jackson, Bala Jagadeesan, Hyein Jang, Stephanie Jimenez Ramos, Pu Jing, Jessica Jones, Renaud Jonquieres, Duane Kaufman, Ahyoon Kim, Jasna Kovac, Sanjay Kumar, Keith Lampel, Jeong-Eun Lee, Susan Leonard, Cong Li, Shaoting Li, Zengxin Li, Jie Yin Lim, Pushpinder Kaur Litt, Xingchen Liu, Xuanjing Liu, Xiaonan Lu, Shannara Lynn, Iain MacLaren-Lee, Michele Manuzon, Sherri McGarry, Karen McWilliams, Jesse Miller, Molly Mills, Paul Morin, Thabang Msimango, Sampa Mukherjee, Xiangwu Nou, Taylor Oberg, Morrine Omolo (Student Liaison), Renato Orsi, Jitu Patel, Alma Perez-Mendez, Sophie Pierre, Karen Pietrzen, Aaron Pleitner, Florence Postollec, Yan Qi, Sarita Raengpradub, Ravindra Ramadhar, Alejandra Ramirez, Loandi Richter, Catherine Rolfe, Shima Shayanfar, Gregory Siragusa, Daniele Sohier, Sultana Solaiman, Christina Stam, Eric Stevens, Errol Strain, Irshad Sulaiman, Ben Tall, Sandra Tallent, Brad Taylor, Sarah Tillis, Ruth Timme, David Tomas Fornes, Mark Truesdale, German Villamizar-Rodriguez, Chun Wang, Benjamin Waring, Tamara Wood, Chenghuan Xu, Shaokang Zhang, Yifan Zhang, Shaohua Zhao, and Joe Zindulis.

Number of Attendees: 129.

Meeting Called to Order: 9:00 a.m., Sunday July 8, 2018.

Minutes Recording Secretary: Dr. Xiangyu Deng and Dr. Eric Stevens.

Old Business:

Call to order and welcome – Karen Jarvis (Chair) and Xiangyu Deng (Vice Chair).

Member sign in – To be included from sign-in list passed around (no badge scanner). The badge scanner did attend and scan badges during the meeting – manual sign in sheets available upon request.

Review of Symposia sponsored or co-sponsored by AMA PDG – 6 symposia this year at IAFP.

The meeting minutes from 2017 were approved.

New Business:

Introduction of the Student PDG Liaison – Morrine Omolo – Morrine encourages participation with the student PDG to establish mentorship between members of AMA and the Student PDG – Please reach out to Morrine if you are interested in mentoring a student.

10-minute talks – state of technology

1. Tom Edlind, Ph.D. – Strain Typing in the Food Facility: Opportunities and Obstacles.
2. Eric Stevens, Ph.D. – The Impact of WGS and Metagenomics Sequencing as a One Health Approach for Produce Safety.
3. Jesse Miller, Ph.D. – Swimming Through the Sequencing Swamp – How Do We Generate Data that Doesn't Stink?
4. Iain MacLaren-Lee, Ph.D. – Portable and Rapid Sequencing of Pathogen Genomes.

Update on the state of IAFP (membership, submitted/accepted symposia) from Tim Jackson.

Suggestions for 2019 AMA PDG sponsored symposia, roundtable, workshops and webinars:

1. Workshops
 - i. Repeating both WGS and WGS 101 in 2019 (need to define what each current workshop offers and how new workshops fill a needed space).
 - ii. Functional genomics workshop?
 - iii. Webinars as a more accessible and affordable alternative to workshops.
2. Non-classified topics for workshops, symposia, webinars
 - i. WGS and metagenomic sequencing and how relevant (when industry is chasing foodborne pathogens) when transference of AMR is also important.
 - a. What FDA thinks is relevant.
 - b. What research is going on.
 - c. What the PDG would like to see (what the academics should be asking).
 - ii. Multiple approaches to analyte detection methods (maldi MS and WGS, sample prep methods for WGS and metagenomic sequencing).
 - iii. Food security and poisoning.
 - iv. Sanitation and practical applications (spread across three symposia).
 - v. Detection/Identification of Food fraud (authentication, adulteration).
 - a. What methods do we use and how to trace and track the growing threat of illegal food adulteration practices employed to make money?
 - b. Seafood PDG could help with sponsoring.
 - vi. Culture Independent Diagnostic Tests (CIDT, this also came up in the Applied Laboratory Methods PDG).
 - a. Linking with epidemiologists on how this will impact the future.
 - vii. Use of genomics for risk assessment.
 - a. Focus on government interest.
 - b. Functional genomics for risk assessment (virulence, antimicrobial resistance, sanitizer resistance).
 - viii. Making commercial cases on the economics of outbreaks and the value added when adopting new technologies.
 - ix. Metagenomics in agriculture or other food commodities.
 - x. MetagenomeTrakr database for food safety (food microbiome characterization and pathogen detection).
 - xi. Student PDG – How novel technologies and methods can be adapted for use in developing or middle-income countries. How can students trained in these technologies return home to use them?

Recommendations to the Executive Board:

1. The Advanced Molecular Analytics PDG approved Dr. Xiangyu Deng as the new Vice Chair of the AMA PDG.
2. The Advanced Molecular Analytics PDG looks forward to the August Webinar to explain the process for symposium selection of and how to improve our proposals to strengthen the chances of acceptance and requests that the Board include information about how technical talks are rated as well.
3. The Advanced Molecular Analytics PDG would like the Board to provide more detailed information about the proposal review process for symposia, roundtables, and workshops. Additionally, would the Board be willing to provide the reasons for rejecting applications and the scores or rank of accepted and rejected proposals?
4. The Advanced Molecular Analytics PDG would like the Executive Board to consider funding (for all PDGs) for a mobile polling app such as Poll Everywhere for use during our PDG meetings to collect ideas for symposia, roundtables, workshops and webinars. This app would greatly improve and streamline the PDG process of discussing, and logging ideas for symposia, etc.

Next Meeting Date: July 21–24, 2019, Louisville, KY.

Meeting Adjourned: 11:00 a.m.

Chairperson: Karen Jarvis.