

Drug Metabolism and Pharmacokinetics Interest Group Report of the Interest Group Workshop 69th ASMS Conference, October 31 to November 4, 2021, Philadelphia, PA

The Drug Metabolism and Pharmacokinetics (DMPK) Interest Group (IG) Workshop was held on Wednesday, November 3 from 5:45 to 7:00 pm. The coordinator, Brian Rago could not attend due to Pfizer's travel ban, so the co-coordinator, Bhagwat Prasad led the meeting. Despite COVID-19 restriction approximately 40 scientists (~20 virtual and ~20 in person) attended the workshop demonstrating interest in drug metabolism and pharmacokinetics. An expert panel shared their perspectives to spur discussion on the workshop topic. The strong attendance and active attendee participation in the discussion provide a good endorsement for continuing the DMPK-IG in future years.

Bhagwat Prasad shared the DMPK IG goals to attendees, introduced the session and speakers, and called for nominees and volunteers for future DMPK-IG sessions. One potential workshop co-coordinator expressed her interest to involve in the planning of future meeting.

1. Review of the DMPK IG Goals

The DMPK Interest Group goals of providing a discussion forum to MS practitioners in drug metabolism, pharmacokinetics, qualitative and quantitative, non-regulated bioanalysis include sharing:

- Recent advances in techniques and methodologies for metabolite identification and pharmacokinetic bioanalysis
- Interpretation of and application of related guidance documents (i.e., MIST, ICH M3, DDI, expl. IND)
- Sharing of best practices across industry and academia
- Provide input on ASMS conference program of interest to scientists working in DMPK
- Reach out and coordinate with related groups to complement scope and broaden outreach to scientific community

2. 2021 and future DMPK IG Coordinators

2021: Aaron Teitelbaum, BI (Coordinator) - aaron.teitelbaum@boehringer-ingenelheim.com
Bhagwat Prasad, WSU (Co-Coordinator) – bhagwat@uw.edu

2022: Bhagwat Prasad, WSU (Coordinator) – bhagwat@wsu.edu
Lina Luo, Pfizer (Co-Coordinator) – lina.luo@pfizer.com

2023: Lina Luo, Pfizer (Coordinator) – lina.luo@pfizer.com
Hlaing (Holly) Maw (Co-Coordinator) hlaing.maw@boehringer-ingenelheim.com

3. DMPK IG workshop agenda for 2021

Three panel speakers shared their experiences and recommendations on the theme “LC-MS for Translational DMPK and Precision Medicine”:

1. Kaushik Mitra, Ph.D., Jansen, Philadelphia, PA: Derisking strategies for drug-induced liver injury (DILI) in the last two decades
2. Nina Isoherranen, Ph.D., University of Washington, Seattle, WA: Discovery and visualization of uncharacterized drug-protein adducts using mass spectrometry
3. Bhagwat Prasad, Ph.D., Washington State University, Spokane, WA: Quantitative proteomics and metabolomics in translation DMPK and precision medicine

4. Update on the DMPK Interest Group's Impact on the 2021 ASMS Program

We thank the ASMS for being receptive to our requests and proposals for a comprehensive set of DMPK oriented oral sessions for the 2021 meeting. This responsiveness was reflected in a number of DMPK related Oral sessions and the positive feedback from the Interest Group attendees.

5. Suggestions on ASMS 2021 Oral Session Topics from DMPK-IG Attendees

- Brahim Achour, University of Manchester, UK: Proteomics analysis of extracellular vesicles for predicting in vivo drug metabolism and transport (Email: brahim.achour@manchester.ac.uk)
- Bhagwat Prasad, Washington State University, Spokane, WA: Confounding factors in drug transporter and enzyme biomarker LC-MS analysis (Email: bhagwat.prasad@wsu.edu).

Current Officers for the ASMS DMPK Interest Group:

Coordinators of 2020:

- Brian Rago (Coordinator for 2020)
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