

The Drug Metabolism and Pharmacokinetics (DMPK) Interest Group (IG) Workshop at 71th ASMS Annual Conference on June 4 - 8, 2023 in Huston, TX

The Drug Metabolism and Pharmacokinetics (DMPK) Interest Group (IG) Workshop was held on Tuesday, June 6th from 5:45 to 7:00 pm. The coordinator, Lina Luo and the co-coordinator, Holly Maw led the workshop. Approximately 30 scientists attended the workshop demonstrating interest in drug metabolism and pharmacokinetics. An expert panel shared their perspectives to spur discussion on the workshop topic, recent advances in utility of accelerator mass spectrometry (AMS). The active attendee participation in the discussion provided a good endorsement for continuing the DMPK-IG in future years.

Lina shared the DMPK IG goals to attendees and introduced the session, Holly introduced the speakers, moderated the panel discussion. Future DMPK hot topics also were discussed during this workshop.

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. 2023 and future DMPK IG Coordinators

2023: Lina Luo, BMS(Coordinator) – lina.luo@bms.com
Holly Maw, BI (Co-coordinator) - hlaing.maw@boehringer-ingelheim.com

2024: Hlaing (Holly) Maw (Coordinator) hlaing.maw@boehringer-ingelheim.com
Josh Yu (Co-coordinator) josh.yu@gilead.com

2025: Josh Yu (Coordinator): josh.yu@gilead.com
HsinPin Ho (Co-coordinator): hsinpin.ho@bms.com

3. DMPK IG workshop agenda for 2023

Three speakers shared their experiences and recommendations on the theme “Accelerator Mass Spectrometry (AMS): Current Utility and Future Opportunities”:

- AMS focusing on pediatric application by Dr. Esther Van Duijn
- AMS focusing its application in absolute bioavailability and metabolite identification by Dr. Xiaomin Wang
- AMS focusing on the Boehringer Ingelheim’s AMS system and analytical aspects by Ralf Laux

Example questions for the workshop speakers:

- Return on investment on owning an AMS system in a pharmaceutical industry
- Any carryover challenges regarding ¹⁴C measurement
- Acceptance of data generated by AMS submitted to regulatory authorities
- Any interference with natural ¹²C abundance on the AMS data

4. Update on the DMPK Interest Group’s Impact on the 2023 ASMS Program

We thank the ASMS for being receptive to our request and proposals for DMPK oriented oral sessions for the 2023 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 2024 Oral Session Topics from DMPK-IG Attendees

- Idiosyncratic toxicity
- Liquid biopsy: Success stories and challenges
- Metabolism of new modalities
- Tissue imaging

Current Officers for the ASMS DMPK Interest Group:

Coordinators of 2023:

- Lina Luo, BMS (Coordinator for 2023)
BMS, Princeton, NJ
e-mail: lina.luo@bms.com

- Holly Maw, BI (Coordinator for 2024)
- BI, Ridgefield, CT
e-mail: hlaing.maw@boehringer-ingelheim.com