

Microfluidics Association Newsletter #1

March 2025

This newsletter summarises recent events and activities for the MFA in 2024, together with upcoming events and activities in 2025. This material will be reprised in greater detail in the 2024 Annual Report, and at the AGM in April 2025. In the future, we will issue newsletters more frequently to provide our members updates for the MFA's activities.

Activities

- Whitepaper. Drafting and publication of “Whitepaper indicators for material selection used for microfluidic devices”. This whitepaper (10.5281/zenodo.14500148) is meant as a guide for microfluidic device developers for minimum indicators and evaluation methods for substrate material selection.
 - download at <https://microfluidics-association.org/downloads/>
- MFMET. The MFMET EMPIR project “Establishing metrology standards in microfluidic devices”, concluded successfully in May 2024, yielding four whitepapers on leakage testing, optical interference, flow resistivity and wettability developed in cooperation with the MFA. The MFMET II EPM project has funding approved through to 2028. Both projects are coordinated by Dr. Elsa Batista (MFA Director) and involve close cooperation with the MFA to further develop microfluidics standards and support the organisation of workshops.
 - See: <https://mfmet.eu/> for more details.
- Standardization. MFA members are deeply involved in the work of several ISO Technical Committees related to microfluidics, namely ISO/TC 48/WG 3 – “Microfluidic devices”, ISO/TC276/WG4 – “Bioprocessing for cells and related entities”, and the new ISO/TC276/SC2/WG1 – “Terminology”, among others. Several new standards are in preparation on the subject of leakage, assemblage and terminology of microfluidic devices, including organ-on-chip.

Events

- μTAS 2024 workshop. An MFA workshop entitled “Standardized Approaches to Facilitate the Development and Production of Microfluidic Products”, co-chaired by Drs. John Crabtree and Darwin Reyes (MFA Directors), was held on October 13th, 2024 at the μTAS 2024 conference in Montréal, Canada. Presentations were given by MFA members from NIST, Microfluidic ChipShop, Micronit, Fluigent and HJC Consulting, and the 40+ attendees also participated in a Q&A session with a discussion panel as well as a hands-

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on session with microfluidic devices and equipment from Microfluidic ChipShop and Fluigent.

- See: https://microtas2024.org/courses/workshops/workshop_5.html.
- **Upcoming UCD workshop.** An MFA workshop entitled “2025 Workshop on Standardization of Microfluidic Devices”, chaired by Dr. Nan Zhang (MFA Director), will be held on March 20th-21st, 2025 at the University College Dublin in Dublin, Ireland. Dr. Zhang has lined up experts who will be speaking on topics such as device manufacture, organ-on-a-chip, sensor integration and advanced applications, and there will be hands-on sessions and social events to promote networking.
 - **Tickets are still available**, and we hope to see you there!
 - See: <https://www.microfluidicsdublin.com/> for details and tickets.

