

Open Flow Cytometry Standards Consortium Meeting

11/18/21

Thursday, 11 AM – 1PM EST

<https://nist-secure.webex.com/nist-secure/j.php?MTID=m54eed7e0e7a45490b1cef2f5ea43af83>

The purpose of this workshop is to learn about the state-of-the-art in flow cytometry data analysis tools and procedures, identify pressing gaps and challenges, as well as opportunities for collaborative solutions.

The expected outcome of the workshop is a Workshop Summary that defines the work of the Consortium.

About the Flow Cytometry Standards Consortium:

NIST recently launched the [Flow Cytometry Standards Consortium](#) to accelerate the adoption of quantitative flow cytometry in biomanufacturing of cell and gene therapies.

The Consortium has two active Working Groups working on 1. instrument standardization via Equivalent Number of Reference Fluorophores (ERF) beads, and 2. assay standardization to enable more comparable and quantitative assays commonly used for cell and gene therapy characterization and release. NIST is working to establish Working Group 3 focused on data analysis.

Meeting Objectives:

- ☐ Provide an overview of the NIST Flow Cytometry Standards Consortium's work to date and future
- ☐ Have multiple companies outline their data analysis software's unique capabilities
- ☐ Discuss other data analysis considerations

Agenda:

1. NIST consortium working groups and interlaboratory studies overview and goals (15 minutes)
2. Company presentations:
 - a. Enabling biomarker data science in the cloud - Daniel Crichton, JPL (10 minutes)
 - b. Standardization and interoperability aspects of BD cytometry software - Josef Spidlen, BD Life Sciences (10 minutes)
 - c. Making Machine Learning-assisted Data Analysis Accessible on the Cytobank Platform – Giulia Grazia, Beckman Colter Life Sciences (10 minutes)
 - d. Utilizing FCS express to standardize cytometry analysis protocols and consolidation of reporting results - Sean Burke, De Novo Software (10 minutes)

- e. Automation-Assisted Flow Cytometry Analysis with TASBE Flow Analytics - Jake Beal, Raytheon BBN (10 minutes)
- 3. The roles of uncertainty quantification in cytometry - Paul Patrone, ITL/NIST (10 minutes)
- 4. Advancement in bioanalytical techniques to improve cell therapy product quantification - Heba Degheidy, CBER/FDA (10 minutes)
- 5. ISAC Perspectives on Cytometry Data Reporting and Transparent Analysis – Jonathan M. Irish (10 minutes)
- 6. Discussion (20 minutes)
- 7. Summary and next steps (5 minutes)