

Flow Cytometry Solutions for Translational Research

FLOW CYTOMETRY is a versatile technology platform that has demonstrated great potential for use in biopharmaceutical development. The multiparameter analysis and high-throughput capabilities of flow cytometry make it a powerful tool that is increasingly used for efficiently assessing immune status and automated quantification of rare cells in pre-clinical and clinical studies.

In particular, the unique ability of flow cytometry to combine detection, quantification, differentiation, and functional measurements, contribute to its value in the development of today's targeted immunotherapies. Since many of these treatments target diseases that are linked to the dysregulation of immunologic homeostasis, incorporating the monitoring of specific populations of patient's immune cells, and their function in response to treatments, can contribute to a clearer understanding of clinical endpoints in these studies.

Flow cytometry applications in immunotherapy development:

- immunogenicity assessment
- immune response characterization
- receptor occupancy
- cytokine production
- rare event/cell detection

Flow cytometry has also been instrumental to understanding chronic viral infections and in development of vaccines and other anti-viral therapies.

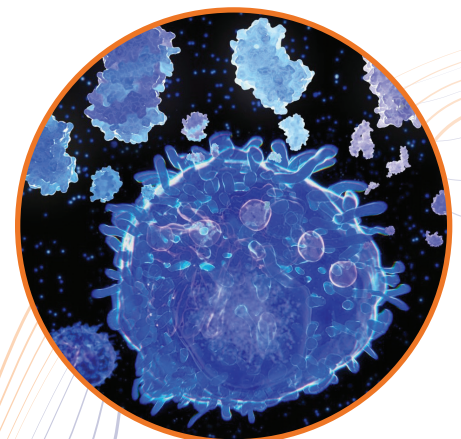
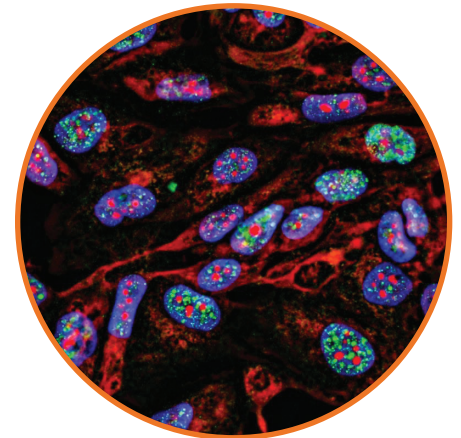
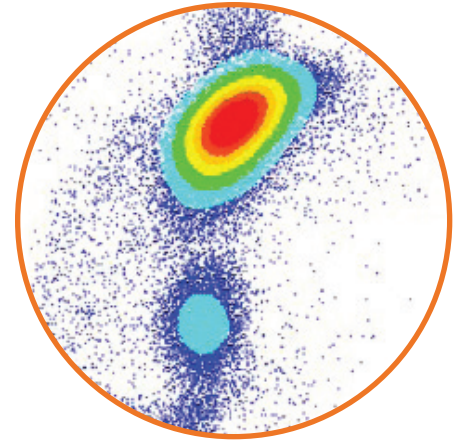
Several other cell-based assay platforms, such as microscopy and ELISpot, are used by translational scientists today. However,

flow cytometry combines aspects of both methods while increasing the number of parameters measured simultaneously on not only *ex vivo* and *in vitro* samples, but *in vivo* samples as well.

At Viracor-Eurofins we have applied this understanding and capability of flow cytometry for many years, working with multiple clients to ensure the success of their clinical studies.

The breadth of research areas, and depth of experience of our flow cytometry staff, enable us to offer a range of cell-based assay development and testing services to support translational research, such as:

- detection of chemical messenger production (e.g., cytokines),
- expression of intracellular biomarkers (e.g., transcription factors),
- immune status of cells (e.g., Treg suppression assays),
- virus-specific T cell immunity monitoring,
- exosome analysis and pathogen identification.



Flow Cytometry Services



Meet our expert, Brian T. Maybruck, PhD, Senior Scientist. He helps ensure our client's continued success with flow cytometry applications. Dr. Maybruck is a highly skilled immunologist with over 12 years of experience using flow cytometry for testing hypotheses associated with vaccine development, drug discovery, chronic microbial infections, allergic disease, and cancer.

If you are unsure that flow cytometry is applicable for your study, please let us know. Dr. Maybruck and our staff are happy to help. Our dedicated in-house flow cytometry team will work with you to develop custom fit-for-purpose assays and validate panels to meet your unique study needs.

Flow Cytometry Assays to Support Clinical Studies

- High-parameter immune cell profiling
- Immune cell activation
- Functional assays – RO, ICS, proliferation/ suppression
- Checkpoint, immune cell regulation biomarkers
- Receptor occupancy and density
- Anti-drug antibody (ADA), & neutralizing antibody (NAb)
- In vitro stimulation and quantification of intracellular cytokines
- Rare cell/event detection

Other complementary analytical technologies offered at Viracor:

- Multicolor ELISpot and Fluorospot
- Genomic biomarker detection and profiling – qPCR, ddPCR, NGS
- Multiplex cytokine profiling – MSD, Luminex
- PBMC Processing (isolation & cryopreservation)



Viracor
BioPharma Services

INSTRUMENTATION

BD FACSymphony™ A5 Cell Analyzer
• 5-laser, 29 parameters, 27 colors

BD Rhapsody™ Single-Cell Analysis
• Single cell gene expression profile analysis

BD LSRFortessa™ Flow Cytometer
• 3-laser, 16 parameters, 14 color

BD LSR II Flow Cytometer
• 3-laser, 12 parameters, 10 color

BD FACSCanto™ II Flow Cytometer
• 3-laser, 10 parameters, 8 color

Beckman Coulter Navios™ (2)
• 3-laser, 12 parameters, 10 color

Beckman Coulter FC500 (2)
• 3-laser, 7 parameters, 5 color

Cytek® Aurora Spectral Flow Cytometer
• 5-laser, 64 parameters, >30 color

Contact us today to discover how the Viracor Eurofins team can make the difference in your projects.

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