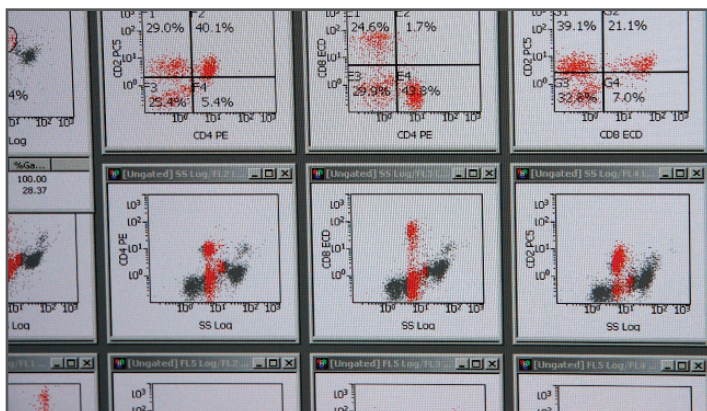


Flow Cytometry

Geneunity™ Clinical Research Services offers a variety of advanced laboratory technologies useful to developers of in vitro diagnostic kits, drug delivery systems and new therapeutics. Flow cytometry is one of these offerings. Geneunity and its parent company, Molecular Pathology Laboratory Network, Inc., have more than 20 years experience with this highly-specialized technology.

Technology

Flow cytometry can be used to identify and characterize cell surface, cytoplasmic and nuclear biomarkers with a high degree of accuracy and reproducibility. Analysis of biomarkers for subsets of lymphocytes and other cells can be used to establish pharmacodynamic and pharmacokinetic relationships. Normal and abnormal cells can be identified, enumerated and characterized with respect to biomarker expression, cell lineage and maturation state.



Flow cytometry technology provides accurate rare event analysis with high sensitivity, while rapidly processing large amounts of data. Our laboratory has experience in custom protocol design and validation for flow cytometric analysis both for novel antibodies and small molecules.

Analysis

The flow cytometry laboratory located at our main facility in Maryville, Tenn. and a second, dedicated flow cytometry laboratory, located in Richmond, Va. ensure rapid results. Reports are designed to convey relevant information in an easy to read format. The findings address sample quality, sample cellularity, and quantitation and characterization of all major cell lines. Flow cytometry can be performed on a variety of body fluids including CSF, peripheral blood and bone marrow as well as solid tissue.

Flow cytometry utility

- Biomarker analysis
- Rare event analysis
- Cell cycle analysis
- Absolute lymphocyte subset counts
- Cell viability

Flow cytometry markers

Leukocyte adhesion markers

CD11a, CD11c, CD18

Lymphoid markers

CD2, CD3, CD4, CD5, CD7, CD8, CD10, CD 16, CD19, CD20, CD23, CD38, CD45, CD56, CD57
sIgkappa, sIglambda, FMC7, T-gamma/delta

Lymphocyte profile and absolute counts

CD3, CD4, CD8, CD16, CD19, CD45, CD56

Myeloid markers

CD11b, CD13, CD14, CD15, CD16, CD33, CD34, CD45, CD117
HLA-DR

Natural Killer (NK) cell markers

CD16, CD56, CD57

Plasma cell markers

CD38, CD45, CD56, CD138
cIg kappa, cIg lambda

Specialty markers

Ber-EP4 epithelial antigen
CD1a, CD25, CD30, CD52, CD64, CD103, CD117
CD41, CD42b, CD61, CD62p
Glycophorin-A, CD71
Nuclear TdT
Intracellular cytokeratin, myeloperoxidase, CD3, CD22, CD79a
CD55, CD59, FLAER
bcl-2
Ki-67
ZAP-70

*Other markers available on request.