**HematoLogics, Inc.**

3161 Elliott Avenue, Suite 200, Seattle, WA 98121 Phone: (800) 860‐0934 Fax: (206) 223‐5550 [www.hematologics.com](http://www.hematologics.com/)

**The HematoLogics Difference**

**N:™ (**Difference from Normal**) Flow Cytometry** not only answers the question whether cells express a particular antigen (positive or negative), but also determines if the levels of expressed antigens (immunofluorescent intensity) are normal or abnormal. This approach is **superior for monitoring** **MRD in AML** and detects changes in immunophenotype missed by laboratories using leukemia-associated immunophenotypes (LAIP).

**Validated ∆N:™ Flow-Cytometric MDS Scoring System (FCSS)** provides information for the diagnosis and prognosis of MDS.

**Children’s Oncology Group (COG) Reference Lab** HematoLogics evaluates measurable (minimal) residual disease (MRD) in AML by flow cytometry and RQ-PCR. COG certified in cytogenetics and FISH.

**Cell Enrichment for Plasma-cell Neoplasms - plasma cells are enriched** prior to testing by FISH, PCR, and aCGH. Cell enrichment with confirmation by flow cytometry ensures optimal sensitivity.

**Fluorescent-activated cell sorting** **(FACS)** can sort small populations of cells by flow cytometry to provide sufficient numbers for additional testing—FISH, PCR, NGS, aCGH, etc. This method significantly increases test sensitivity and specificity when combined with FISH **(FACS-FISH)** or other molecular techniques (i.e., clonal profiling).

**Quantitative PCR** menu is the most comprehensive available.

**Extensive FISH Probe Library** is available foranalyses of myeloid and lymphoid neoplasms. FISH can also be performed on paraffin-embedded tissues, **plasma cells enriched** from whole bone marrow, **cells sorted by flow cytometry**, etc. Our FISH studies have industry-leading turn-around times.

**Metaphase FISH (FISH of cells in metaphase)** integrates cytogenetic banding with fluorescent in situ hybridization to target specific chromosomes. It identifies the translocation partner for chromosomal rearrangements incompletely characterized by routine cytogenetic karyotypes and routine FISH (of cells in interphase). For example, metaphase FISH could be used to characterize c-MYC rearrangements.

**Clonal Profiling for Rearrangements of Immunoglobulin and T-cell Receptor Genes** provides a molecular fingerprint of your patient’s lymphoid neoplasm to confirm clonality, to establish relationships between multiple clones, and to monitor a patient’s response to treatment over time.

**Cytogenetic Cultures for Karyotypes of Myeloid and Lymphoid Neoplasms are Optimized** using culture conditions based on specimen composition (determined by flow cytometry) to provide high abnormality rates (~30%) and fast turnaround times (~5 days). Professional consultation and preliminary results are only a phone call away with no phone tree.

**Patient’s Baseline Specimen for Quantitative RQ-PCR** is routinely tested side by side with monitoring specimens. Other laboratories use cell lines or commercial standards, reducing the accuracy of patient-specific responses.

**Specimens are Archived** (at no additional cost) to preserve DNA and cells for future retrospective testing. Diagnostic specimens are used as baselines for future quantitative monitoring and next-generation sequencing.

**SNP/CGH Microarray** (combined on one platform) to detect clonal evolution, loss of heterozygosity (LOH), cryptic 5q deletions in MDS, masked hypodiploidy and *RUNX1* amplifications in ALL.

**CD33 SNP** correlates with the level of expression of CD33, which is the binding site for gemtuzumab ozogamicin (MylotargTM) and can help predict response in the treatment of AML.

***CBFA2T3-GLIS2* RT-PCR** provides a quantitative test to monitor residual disease in pediatric patients who have a rare type of AML with the **RAM phenotype**.

**Next-generation sequencing (NGS)** has panels for AML, MDS, JMML, and MPN, and NGS can be performed on cells sorted by flow cytometry.

HematoLogics has numerous **peer-reviewed publications** co-authored with COG, several universities and numerous international studies.

**Our integrated/algorithmic approach** minimizes unneeded testing. The specimen composition determined by **∆N:**™ (Difference from Normal) **Flow Cytometry** guides further testing—appropriate cultures for cytogenetic karyotypes, FISH panels, PCR, DNA sequencing, NGS, cell sorting for FISH or DNA tests, etc. Our interdisciplinary team guides testing through an integrated laboratory.

**Best for Your Patient – Best for You**