

## HEMATOLOGY/ONCOLOGY

**Chromosome Analysis:** identifies numerical and structural chromosome abnormalities in bone marrow, leukemic peripheral blood (blast count >5%), or lymph node samples. B-cell mitogens are used in establishing cultures on patient samples with a diagnosed or suspected B-cell disorder. Identification of specific abnormalities are key to diagnosis and may serve as prognostic indicators. For karyotype analysis of a tumor, please contact the laboratory for specific instructions.

- Final reports include a description of diagnostic and prognostic indicators and pertinent literature references.
- Preliminary reports are provided on samples within 24-48 hours

Patients diagnosed with:

- Myelodysplastic disorders
- Myeloproliferative disorders
- Acute lymphocytic leukemia
- Acute nonlymphocytic leukemia
- Lymphoma
- Lymphoproliferative disorders
- Chronic lymphocytic leukemia
- Multiple myeloma
- Neuroblastoma
- Pleural effusion (questionable metastasis)

### Fluorescent in situ hybridization (FISH)

#### *Acute Leukemias*

t(8;21) - AML M2  
t(15;17) - AML M3  
inv(16)/t(16;16) - AML M4  
t(12;21) - childhood ALL

#### *Chronic Granulocytic Leukemia – CGL or CML*

t(9;22) - bcr/abl (Philadelphia chromosome)  
9q34 (ASS gene) deletion if t(9;22) present

***B-cell disorders/Lymphomas***

Trisomy 12

11q23 (MLL) rearrangement

13q14 (Rb1 or D13S319) deletion

14q32 (IGH) rearrangement

17p13.1 (p53) deletion

18q21 - MALT lymphoma

t(2;v) - (ALK) Anaplastic large cell lymphoma

t(3;v) - (bcl-6) Non-Hodgkin's lymphoma

t(8;14) - Burkitt's lymphoma (IGH/MYC rearrangement)

t(11;14) - Mantle cell lymphoma (IGH/CCND1 or bcl-1 rearrangement)

t(14;18) - Follicular cell lymphoma (IGH/bcl-2 rearrangement)

***Bone marrow transplant***

X-Y (Sex mismatch)

***Oncology probes***

Her-2/neu amplification

n-myc amplification

*Note: Since new probes are continually being developed, call the laboratory for availability of probes not listed.*