THE ROLE OF GENETIC TESTING IN AML

- Identifies genetic mutations.
- Determines your specific AML subtype.
- Provides insight into your risk and disease prognosis.
- Informs and personalizes your treatment options.
- Monitors your treatment response and assesses the effectiveness of therapy.

TYPES OF GENETIC TESTS IN AML

- Cytogenetic Analysis (or Karyotyping)
- Fluorescence in situ Hybridization (FISH test)
- Molecular Testing, which includes:
  - Polymerase Chain Reaction (PCR)
  - DNA Sequencing
  - Next-Generation Sequencing

COMMON BIOMARKERS IN AML

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<tr>
<th>Biomarker</th>
<th>Description</th>
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<tr>
<td>FLT3 (Fms-Like Tyrosine Kinase) Mutation</td>
<td>This gene mutation occurs in approximately 30 percent of AML patients.</td>
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<tr>
<td>IDH (Isocitrate Dehydrogenases) Mutation</td>
<td>Mutations in IDH1 or IDH2 are detected in approximately 20 percent of patients with AML.</td>
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<tr>
<td>NPM1 (Nucleophosmin-1) Mutation</td>
<td>The most common molecular mutation identified in adult AML.</td>
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<tr>
<td>TP53 (Tumor Protein 53)</td>
<td>A gene that helps stop the growth of tumors. TP53 is the most frequently mutated gene in human tumors. TP53 mutation rates are low in AML.</td>
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TAKE ACTION

- Make sure you see an AML specialist.
- Discuss which tests you should undergo with your doctor.
- Review the results with your doctor.
- Do your own research on the findings.
- Work with your healthcare team to determine a personalized treatment plan for your AML.
- Ask your doctor when you should be re-tested

TARGETED THERAPY

Targeted Therapies block the growth of cancer by interfering with specific molecules involved in the progression and spread of cancer. Targeted therapies include a class of treatment called Inhibitors.

FDA-Approved AML Inhibitor Therapies include:

- **FLT3 Inhibitors**: Midostaurin (Rydapt); Gilteritinib (Xospata); Sorafenib (Nexavar)
- **IDH Inhibitors**: Enasidenib (Idhifa); Ivosidenib (Tibsovo)

FDA-Approved Novel Inhibitor Therapies are used across all mutational subtypes of AML include:

- **BCL-2 Inhibitors**: Venclexta (Venetoclax)
- **Hedgehog Inhibitors**: Glasdegib (Daurismo)