

**Test Upgrade:**  
**Myeloid DX Next Generation Sequencing (NGS) – Molecular  
Genetics Laboratory**  
**Effective Date: 2/17/2025**

Effective 2/17/2025, the Detroit Medical Center University Laboratories (DMCUL) Molecular Genetics Laboratory will replace the current myeloid next generation sequencing (NGS) panel from Illumina TruSight Myeloid Sequencing Panel, which has been recently deprecated, to the CMYS-R-v1 Myeloid panel from SOPHiA Genetics. The SOPHiA Genetics CMYS-R-v1 Myeloid NGS panel is a DNA-sequencing based laboratory developed test (LDT) that aligns to current NCCN guidelines for the most utilized clinical indications for this assay: acute myeloid leukemia (AML), myeloproliferative neoplasms (MPN), and myelodysplastic neoplasms (MDS).

Gene content was strategically chosen to target clinical impact to diagnosis, prognosis, or therapeutic efficacy in a variety of hematologic malignancies. New clinically relevant genes offered in this assay upgrade include the following: *ANKRD26*, *DDX41*, *DHX15*, *ETNK1*, *GNB1*, *NF1*, *NFE2*, *PPM1D*, *PRPF8*, *THPO*, and *UBA1*. The following genes are no longer covered: *ATRX*, *CDKN2A*, *CUX1*, *FBXW7*, *IKZF1*, *MLL*, *MYD88*, *NOTCH1*, *PDGFRA*, and *PTEN*. A full summary of gene content in the upgraded NGS panel can be found in the table below:

<i>ABL1</i>	<i>ANKRD26</i>	<i>ASXL1</i>	<i>BCOR</i>	<i>BCORL1</i>	<i>BRAF</i>	<i>CALR</i>	<i>CBL</i>	<i>CEBPA</i>	<i>CSF3R</i>
<i>DDX41</i>	<i>DHX15</i>	<i>DNMT3A</i>	<i>ETNK1</i>	<i>ETV6</i>	<i>EZH2</i>	<i>FLT3</i>	<i>GATA1</i>	<i>GATA2</i>	<i>GNB1</i>
<i>IDH1</i>	<i>IDH2</i>	<i>JAK2</i>	<i>KIT</i>	<i>KMT2A</i>	<i>KRAS</i>	<i>MPL</i>	<i>NF1</i>	<i>NFE2</i>	<i>NPM1</i>
<i>NRAS</i>	<i>PHF6</i>	<i>PPM1D</i>	<i>PRPF8</i>	<i>PTPN11</i>	<i>RAD21</i>	<i>RUNX1</i>	<i>SETBP1</i>	<i>SF3B1</i>	<i>SMC1A</i>
<i>SMC3</i>	<i>SRSF2</i>	<i>STAG2</i>	<i>TET2</i>	<i>THPO</i>	<i>TP53</i>	<i>U2AF1</i>	<i>UBA1</i>	<i>WT1</i>	<i>ZRSR2</i>

Aside from gene content, corresponding reportable range, clinical and analytical performance characteristics remain unchanged. Finally, turnaround time (TAT) of result availability and test ordering remains unchanged.

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