

DATE:	13 October 2026
TO:	All Pathologists and Oncologists
FROM:	Molecular Pathology Program, Alberta Precision Laboratories
RE:	Myeloid NGS Panel Changes for South Sector Alberta

PLEASE POST OR DISTRIBUTE AS WIDELY AS APPROPRIATE

Key Message

- Effective October 19, 2026, new Next Generation Sequencing (NGS) panels will replace current MYELOID PANEL testing (myelodysplastic neoplasms, myeloproliferative neoplasms, acute myeloid leukemia, etc.) for all South Sector cases.
- A custom Pan-Cancer DNA Panel (319 genes) and Pan-Cancer RNA Fusion Panel (358 genes) will replace the current Oncomine Myeloid Assay (DNA: 45 genes; RNA: 30 genes) at the Arthur J.E. Child Comprehensive Cancer Centre. The full gene list will be made available on the Test Directory.
- Current approved testing indications, ordering method, and report format will remain the same.
- Due to the larger panel sizes, numerous additional variants will be detected and reported. Variants of unknown significance (VUS) will also increase and should NOT be routinely clinically acted upon.

Background

- Current myeloid panel testing in APL Molecular Pathology South Sector is performed utilizing the Oncomine Myeloid Assay for DNA-only testing (eg myelodysplastic neoplasms and myeloproliferative neoplasms), DNA+RNA testing (eg acute myeloid leukemia), or RNA-only testing (eg eosinophilia).
- These panels are being replaced with a Pan Cancer DNA Panel and a Pan Cancer Fusion Panel
- Benefits of implementing the DNA and RNA Pan Cancer NGS panels for myeloid neoplasms include:
 - Expanded full-gene DNA mutation coverage including GATA1, UBA1, DDX41, STAT3, STAT5B, CSF1R, CREBBP, and others.
 - Comprehensive fusion detection for most WHO and ICC diagnostic hematolymphoid entities, including KMT2A partial tandem duplications (PTDs), full KMT2A, NUP98, and RUNX1 coverage, and most BCR::ABL1-like B-ALL fusions. Note: This assay cannot detect promoter-swapping fusions such as IGH fusions in lymphoma – fluorescent in situ hybridization (FISH) is recommended to detect such fusions.
 - Consolidation of multiple molecular lab workflows into universal DNA and RNA panels
 - Leveraging new high-throughput sequencers and automated liquid handlers
 - Sequencer redundancy to reduce downtime from technical issues
 - Higher throughput

How this will impact you

- All currently approved test indications, ordering methods, target turnaround times, and report formats for myeloid NGS panels remain the same. More variants will be reported in more genes.



Action Required

- **Pathologists and Oncologists:** Continue to order the “MYELOID PANEL” test as per approved clinical indications, while being aware the test method has changed for South Sector cases. Familiarize yourself with the increased panel content and be aware that many additional variants including VUS's will be reported. Again please note that routine clinical decisions should NOT be made on the basis of VUS's as recommended in clinical practice guidelines (PMID 35101336).

Effective October 19, 2026

Questions/Concerns

- Erik Nohr, Molecular Pathologist and Scientific Lead, Molecular Pathology South
erik.nohr@albertaprecisionlabs.ca
- Adrian Box, Provincial Medical/Scientific Director, Molecular Pathology
Adrian.box@albertaprecisionlabs.ca

Approved by

- Dr. Adrian Box, Medical/Scientific Director, Molecular Pathology Program
- Christine Frantz, Operations Director, Genetics & Genomics / Molecular Pathology
- Dr. Carolyn O'Hara, Chief Medical Laboratory Officer (Interim), Alberta Precision Laboratories