

TEST UPDATE SMARTGENOMICS NGS SOLID TUMOR + HEME

Pranil Chandra, DO, Director of Molecular Pathology Services James Prescott, PhD, HCLD (ABB), Director of Molecular Diagnostic Services Christopher Coldren, PhD, Director of Bioinformatics

EFFECTIVE AUGUST 25, 2014

PathGroup has made changes to both the solid tumor and hematomalignancy panels performed via Next-Generation Sequencing (NGS) as a part of SmartGenomics[™] orders. Upon review of evolving literature, incidence rates and client feedback the following changes have been made:

SOLID TUMOR: Removed 3 genes (ABL1, MPL, NPM1) and added 6 new genes (CDKN2A, FBXW7, JAK2, PTEN, TP53, VHL) for a total of 38.

HEMATOMALIGNANCY: Added 7 new genes (BTK, CALR, CD79a, PIM1, PIM2, SETBP1, SYK) for a total of 85. In addition to these changes, the assay has also been validated to accept archive tissue from formalin fixed paraffin embedded (FFPE) tumors. The specimen requirements for FFPE tissue on this assay remain consistent with previously defined values for archival tissue.

Specific information about genes, medical inference and inclusion/exclusion rationale is available upon request.

SENSITIVITY AND SPECIFICITY: This assay continues to offer >99% sensitivity and specificity at 5% allele burden via 1000x bi-directional mean coverage.

ORDERING INFORMATION: Specimens sent after August 25, 2014 will be tested on the new assay.

SPECIMEN COLLECTION AND STORAGE: Specimen requirements <u>HAVE NOT CHANGED</u>. FFPE tissue submitted for the hematomalignancy panel mirrors previous outlined specimen requirements for archived materials.

RESULTING: The result reporting process <u>HAS NOT CHANGED</u>. Results will encompass the genes listed above.