The Tempus xT oncology assay combines a 648-gene DNA sequencing panel with whole-transcriptome RNA sequencing to detect clinically actionable gene variants in both solid tumors and hematologic malignancies. For solid tumors, formalin-fixed paraffin-embedded (FFPE) tissue, matched with a normal saliva or blood sample are analyzed. For hematologic malignancies, blood or bone marrow samples are analyzed.

The xT assay is used across a diverse set of clinical settings including leading academic centers, NCI-designated cancer centers, hospital networks, and community hospitals. The Tempus xT panel was demonstrated to have a high sensitivity (> 95%) and high specificity (> 99%) for DNA-derived variants and is performed in a CAP/CLIA certified lab. The xT assay can identify actionable variants of both somatic and germline origin, including: (1) single-nucleotide variants (SNV); (2) insertions/deletions (indel) less than 100 base pairs; (3) copy number variants (CNV); and (4) chromosomal rearrangements/gene fusions. Complementary RNA sequencing can also enable the unbiased detection of additional clinically validated gene fusions.

“This panel sets a new standard for broad panel genomic testing, since it allows physicians to test solid tumors and hematologic malignancies in one test and uses a normal sample for reference when feasible, thus improving the accuracy of the test for patients,” said Dr. Gary Palmer, Chief Medical Officer at Tempus. “Most importantly, it utilizes clinical outcome data to inform possible treatment decisions, allowing patients to receive the best evidence-based treatment available.”

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