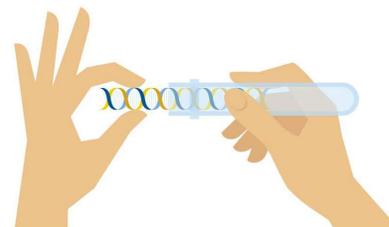


PROFILING OF TUMORS

Molecular profiling of tumors is performed to identify genetic alterations that accumulate in cancer cells, in particular driver mutations that can serve as treatment targets. Genetic alterations identified in tumors usually include single nucleotide variants (SNVs), deletions and duplications. Fusion genes were originally associated with hematologic cancers; however, more than 300 gene fusions have been identified in almost every kind of solid tumor (including sarcomas and carcinomas of the central nervous system). Identifying and characterizing the mutations in tumors therefore can have both diagnostic and therapeutic applications. The advent of Next-Generation sequencing has enabled high-throughput, low cost, accurate molecular profiling across many tumor types.

JAX The Jackson Laboratory for Genomic Medicine

SOMASEQ™



- ✓ Comprehensive genomic profiling of solid tumors
- ✓ Evaluation of SNVs, CNVs, InDels, Fusions, Splice variants, MSI, and TMB
- ✓ Results in as little as one week



- ✓ DNA and RNA extracted from a single formalin-fixed paraffin embedded sample
- ✓ Streamlined library preparation allows for a single sequencing run
- ✓ Minimum 30% neoplastic content
- ✓ Reports small nucleotide variants (SNV/Indels) across 517 genes, fusions in 55 known drivers, and CNVs in 59 genes

JAX SOMASEQ™

The **JAX SOMASEQ™** test reports on 517 cancer related genes for assessment of all DNA and RNA variant types such as SNVs, CNVs, indels, and fusions, in addition to MSI and TMB. Analyzed using Next-Generation sequencing (NGS), JAX SOMASEQ™ allows for calculation of MSI and TMB, markers that are used in predicting response to immunotherapy. All identified variants are assessed for clinical relevance based on associations in the biomedical literature with response or resistance to FDA-approved targeted therapies. Evidence of association between genomic variants and potential response to therapy or availability of clinical trials curated from the peer-reviewed literature, publicly available databases, and The Jackson Laboratory Clinical Knowledgebase (CKB).



**The Jackson
Laboratory**

*Leading the search
for tomorrow's cures*

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