

We've built a state-of-the-art, CAP accredited and CLIA certified lab. Our highly robotic laboratory is optimized for high throughput clinical next-generation sequencing.

## SEQUENCING

All sequencing includes whole transcriptome RNA-seq and matched normal DNA. Sequencing is completed in approximately two weeks from receipt of patient samples.

### Tempus|xT

- Targeted panel of ~650 genes
- 500x average coverage

### Tempus|xE

- Whole exome panel of ~20,000 genes
- 250x coverage for clinical, and 150x coverage for research

### Tempus|xF

- Liquid Biopsy of ~100 genes
- Average coverage of 20,000x (raw reads)/5,000x (unique reads)



Our laboratory features cutting-edge technology and robotic automation to maximize speed while efficiently delivering high-quality data. Special consideration has been given to workflow, security and air handling.



## STATE-OF-THE-ART LAB EQUIPMENT



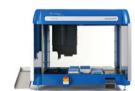
**Illumina HiSeq 4000 sequencers:** Our HiSeq 4000 production sequencers are used for multiple clinical applications and produce up to 1.5 Tb of data per run. They support Tempus' production sequencing.



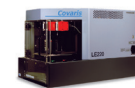
**Illumina NextSeq 550 sequencers:** The NextSeq 550 is the newest desktop sequencer from Illumina. This sequencer provides the fastest turnaround times possible for the multiple applications that Tempus provides to our partners.



**Illumina NovaSeq 6000 sequencers:** The NovaSeq is Illumina's highest throughput instrument, capable of producing up to 6Tb of data per run. Tempus is using this instrument to produce whole exome data.



**PerkinElmer SciClone NGSx automated liquid handlers:** These liquid handlers have the largest number of validated NGS protocols on the market. Multiple units are dedicated to the pre-PCR and post-PCR areas of the Tempus Lab.



**Covaris LE220 Sonicators:** The fastest sonicators on the market allows Tempus to shear DNA eight times faster than previous models with the same high reproducibility.



**JANUS® G3 Automation Workstations:** JANUS® G3 Automation Workstations provide Tempus with real-time and future adaptability in throughput, capacity, and dynamic volume range from 0.5 µl to 5000 µl for consistent and reproducible sample preparation for complete, walk-away automation.



**BioTek Cytation 5 multimode plate reader and imagers:** These readers provide Tempus with the flexibility to provide information on NGS quantification, well-based quantitative data, and automated phenotypic cellular information up to 60x magnification.



**PerkinElmer Chemagic 360s:** Fully automated simultaneous 96-sample nucleic acid isolation and purification from all sample types: blood, saliva, fresh frozen tissue and FFPE tissue, utilizing the latest bead-based technology in combination with a powerful electromagnet.