illumina[®] Connected Insights-Research

Streamline somatic variant interpretation

Identify insights faster while scaling NGS operations for somatic oncology research applications





Biomar

Clinical trials

Connected Insights-Research



Research report

For Research Use Only. Not for use in diagnostic procedures.

Move precision medicine forward

Streamlined

Accelerate time to research report by harnessing the power of automation, powerful visualization, and > 55 knowledge sources

Integrated

Remove unnecessary touchpoints and manual data movement by connecting data analysis with upstream sequencing to simplify and secure the comprehensive workflow

Powered for growth

Scale the volume and throughput of your NGS workflows without increasing headcount to keep pace with evolving science, technology, and demand

Connected Insights-Research harnesses > 55 knowledge sources to bring insights to diverse applications

Comprehensive knowledge in one place

- Connect LIMS, storage, pipelines, and third-party knowledge bases through APIs
- Integrate variant classifications, relevant drug labels, and pertinent clinical trials within a single view

Evidence-based integrated knowledge

- Leverage comprehensive solid and hematological cancer content, somatic gene variant annotations, and related content from multiple integrated knowledge bases:
 - OncoKB, a precision medicine knowledge base that includes FDA-recognized content from Memorial Sloan Kettering
 - JAX-CKB powered by The Jackson Laboratory, a trusted knowledge base with over 100,000 users worldwide

Flexible regionality

- Incorporate relevant lab- and region-specific
 practices within the user-defined workflow
- Support customized variant interpretation and reporting based on regional-tiering guidelines

Regular updates

 Access up-to-date, relevant variant annotations and insights, guidelines, and more with regular, automated content updates (as frequently as monthly for some knowledge sources)

Unlock meaning for a wide range of applications



Solid tumor testing (tissue)

Access comprehensive gene panels across multiple variant types, including TMB, MSI, and GIS to assess HRD



Detect and analyze cancer variants with high analytical sensitivity and specificity using low levels of ctDNA



Hematological cancer

Streamline insight generation for myeloid leukemia, lymphoma, and other hematologic malignancies

Powerful features to streamline integration and adoption of a single-vendor workflow

Enterprise-level security and privacy standards

Protect the privacy of your genomic data with industry-leading global and local security standards

User-defined SOPs and advanced filters

Implement SOPs by creating sets of predefined custom filters or using the advanced filtering system

Streamlined workflow and collaboration

Facilitate teamwork, save time and remove manual data movement steps with auto-ingestion of variant data and autolaunch of Connected Insights-Research

Automated oncogenicity classification

Facilitate standardization within and across laboratories with automated, guideline-based oncogenecity classification, including a transparent evidence map

Broad portfolio of tests and variant types

Analyze comprehensive panels, exomes, genomes, or transcriptomes across a range of DNA and RNA variant and biomarker types, including TMB, MSI, and GIS to assess HRD

Lab-specific curation

Maintain a private knowledge base of your organization's curated data, including information about past variant interpretations and reporting

Automated custom research reporting

Customize, edit, and automatically populate draft research reports with minimal manual interaction

Powerful visualizations

Generate gene- and exon-level visualizations for DNA and RNA, variant QC, genome plots for structural variants, CNVs, B-allele ratio, fusion plots, and more

Integrate and streamline your workflows from library prep, sequencing, and data analysis

Learn more about the Connected Insights-Research at illumina.com/connected-insights

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GenomeWeb KOL white paper

Learn the thoughts of key opinion leaders on the current challenges and promise of NGS interpretation and reporting in clinical oncology



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Connected Insights-Research data sheet

Read how Connected Insights-Research streamlines, integrates, and powers laboratories for scale and growth



Connected Insights-Research security and compliance brief

Understand how extensive privacy, security, and compliance features make Connected Insights-Research a secure environment for sensitive data



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Abbreviations

- API application programming interface
- CNV copy number variant
- ctDNA circulating tumor DNA
- GIS genomic instability score
- HRD homologous recombination deficiency

Indels insertion/deletion

| KOL key opini | on leader |
|---------------|-----------|
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- LIMS laboratory information management system
- MSI microsatellite instability
- NGS next-generation sequencing
- SNV single nucleotide variant

| SOP | standard operating procedure |
|-----|------------------------------|
| SV | structural variant |
| тмв | tumor mutational burden |
| WES | whole-exome sequencing |
| WGS | whole-genome sequencing |