illumina® | Connected Insights

Streamline somatic variant interpretation

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

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 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
  - The Clinical Knowledgebase (CKB) from Genomenon, 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

Liquid biopsy

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

Automated oncogenicity classification

Facilitate standardization within and across laboratories with automated, guideline-based oncogenicity classification, incorporating AI predictors such as PrimateAI-3D and SpliceAI and generating 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

Grow, update, and 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, Circos plots, CNVs, B-allele ratio, fusion plots, and more

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

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

Video

Connected Insights video

Watch this video to understand how Connected Insights enables data interpretation operations for critical insights

Article

GenomeWeb Variant Interpretation article

Learn how Illumina and Genomenon are partnering to improve oncology variant interpretation with AI-driven predictors, knowledge bases, and literature mining integrated within Connected Insights

Data sheet

Connected Insights data sheet

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

Security brief

Connected Insights security and compliance brief

Understand how extensive privacy, security, and compliance features make Connected Insights 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 opinion leader
LIMS	laboratory information management system
MSI	microsatellite instability
NGS	next-generation sequencing
SNV	single nucleotide variant
SOP	standard operating procedure
SV	structural variant
TMB	tumor mutational burden
WES	whole-exome sequencing
WGS	whole-genome sequencing

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