

# Genomic Scar Analysis for Homologous Recombination Deficiency (HRD) with NxClinical™ Software

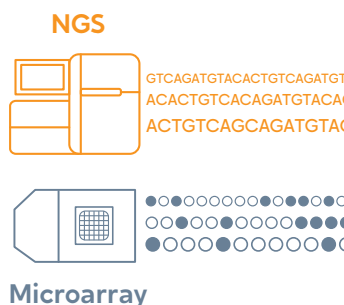
With the latest release of NxClinical software, it is possible to get comprehensive, consistent, automated genomic scar analysis from microarray and next-generation sequencing data. While some other approaches only measure HRD through limited analysis of individual genes, or mutations in genes in HR pathways, NxClinical software offers a more complete analysis by evaluating the entire genome for large scale genomic instability. NxClinical can help reveal more genetic variation that matters in solid tumors, without disrupting existing data pipelines.

## Automated, Consistent Measurement of Genomic Instability

**LOH: Loss of Heterozygosity**

**TAI: Telomeric Allelic Imbalance**

**LST: Large-Scale State Transitions**



## Accelerate Your Cancer Research Discovery

- Confidently detect CNVs and LOH from NGS panels or whole exome sequencing data
- Automatically count events that are hallmarks of large-scale genomic instability
- Seamlessly integrate multiple datasets in a single view to build genome-wide profiles for complex cancers

**NxClinical 6.2 software allows you to use data from many widely adopted array and sequencing platforms, including:**

### **Illumina:**

- Infinium® GDA-Cyto
- Infinium® CytoSNP-850k
- TruSight™ Oncology 500 Assay

### **ThermoFisher:**

- OncoScan™ CNV Assay
- CytoScan™ HD Array



To learn more, visit: [bionano.com/genomic-scar-scoring](https://bionano.com/genomic-scar-scoring)

## Decode Cancer Complexity with Enhanced Transparency and Clarity

The visual display for genomic scar analysis for HRD in NxClinical 6.2 lets you see more genomic variation that matters. A karyogram shows regions with genetic scarring events in a simple, convenient view, with full transparency to chromosomal regions affected. The integrated algorithm merges and smooths data into a unified representation that combines similar event types and small gaps to select events meeting the criteria of each genomic scar. This analysis is easily exported for reporting, creating a scalable, reliable way for laboratories to routinely include genomic scar analysis in tumor evaluation.

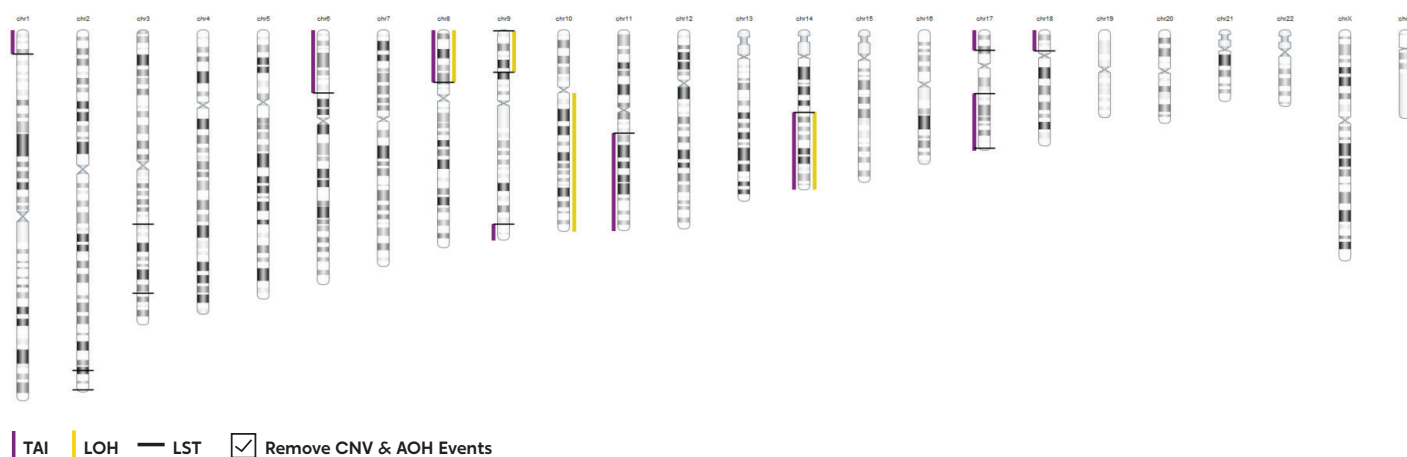


Figure 1: NxClinical 6.2 karyogram highlighting regions of TAI, LOH, and LST across the genome.

## NxClinical: Powering Discovery in Cancer Research

NxClinical enables laboratories around the world to visualize, interpret, and report on genomic data with core capabilities that let you:



Easily implement new analyses at scale with an off-the-shelf solution



Quickly obtain critical insights from NGS and CNV data



Automatically create an internal oncology knowledgebase from your own samples

**Contact your Bionano Regional Business Manager to get started.**

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