BostonGene's platform provides a holistic view of the whole patient by integrating multiple AI–based molecular and immune profiling techniques that analyze the tumor, tumor microenvironment, and host immunity.

BostonGene’s clinical research solutions support and improve the efficacy of clinical trials and R&D by:

**Eligible patient identification**
- Ensuring the trial population is well-defined and representative of the targeted patient population.

**Progress monitoring**
- Assessing the safety and effectiveness of the treatment while also monitoring side effects.

**Diagnosis confirmation**
- Selecting the appropriate patient population to obtain representative results on the broader patient population.
Analytical Modules

Multiomics databases, proprietary analytical software, and automated advanced analytical pipelines, coupled with a high-complexity molecular laboratory, deliver robust results from projects of any size. Hundreds of collaborations and dozens of peer-reviewed publications, and a strong IP portfolio validate BostonGene’s solutions.

Bioinformatic cloud–based computational platform

DNA-based Modules
- Clonal evolution of tumor cells
- Somatic variant & translocation calling
- Germline mutations of pathological significance
- Genomic alterations (HRD, TMB, MSI, and LOH)

RNA-based Modules
- Fusion transcript identification
- Gene expression & pathway analysis
- Proprietary expression signature mapping
- Tumor microenvironment (TME) classification
- Cellular deconvolution/digital cytometry
- Adaptive immune repertoire profiling, TCR/BCRseq
- Identification of cancer–associated viruses and bacteria
- DNA & RNA – Neoantigen prediction
- Immunotherapy response prediction

Liquid Biopsy–based Modules
- Molecular response monitoring
- Minimal residual disease monitoring
- Machine learning–based FACS analysis for the identification of > 300 cell populations
- Peripheral blood immunotype classification
- Immune–related adverse event (irAE) prediction
- Immunotherapy response prediction

Spatial Proteomics–based Modules
- Proprietary digital pathology platform
- Machine learning–based multiplex immunofluorescence image analysis (MxFI)
- Cellular community and interaction analysis

For all questions please contact researchservices@bostongene.com or +1 781–552–3131 (8:00am–5:00pm ET Monday–Friday).