Transforming Cancer Care

High Powered Precision Analytics Linked To Next Generation Molecular Diagnostics
Integrated multiomics solutions to understand a complex disease

Tailored Analytics that turn Data into Discovery

BostonGene is a precision medicine company built on a foundation of unparalleled analytics. Our multidisciplinary team of physicians, biologists, and data scientists provide solutions for patients, clinical researchers, and drug developers.

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.

BostonGene solutions are validated by over 100 collaborations at leading cancer centers, over 30 high impact peer-reviewed publications and a strong IP portfolio.

Accelerate Research: Biomarker Discovery to CDx

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<tr>
<th>Biomarker Discovery &amp; Early Development</th>
<th>Clinical Trial Support</th>
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<td>Therapeutic signature identification and assay development.</td>
<td>Clinical trial design optimization with precise molecular criteria for patient enrollment.</td>
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<th>Patient Stratification</th>
<th>Companion Diagnostic (CDx) Development</th>
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<td>Proven technology for patient stratification, enabling biomarker-guided patient population selection and improved therapeutic efficacy.</td>
<td>CAP/CLIA workflow development, regulatory compliance, end-to-end analytical and clinical validation.</td>
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Contact us:
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Phone number: +1-781-552-3131
Through comprehensive integration of analytical modules and laboratory services, we stratify patients based on molecular and cellular characteristics of both the tumor and immune system.

### Laboratory Services

**Next Generation Sequencing**
- DNA – whole exome sequencing
- RNA – whole transcriptome sequencing
- RNA – repertoire sequencing, TCR/BCRseq
- RNA – single-cell RNAseq, 5’ single-cell TCRseq

**Immunological Assays**
- Flow cytometry – cellular immunoprofiling
- Flow cytometry – malignant cell profiling/MRD (heme)
- Cell sorting – custom FAC sorting and sequencing
- Cell sorting – magnetic cell enrichment strategies

### Analytical Modules

**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 (Kassandra)
- Adaptive immune repertoire profiling, TCR/BCRseq
- Identification of cancer-associated viruses & bacteria
- DNA & RNA – neoantigen prediction
- Immunotherapy response prediction
- Helenus

### Liquid Biopsy Assays
- ctDNA (plasma)
- cfRNA (plasma)
- Flow cytometry
- TCR/BCRseq

### Multi-parameter Imaging
- H&E histology (tissue)
- Immunohistochemistry (tissue)
- Spatial proteomics, MxIF (tissue)

### 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 (MxIF) image analysis
- Cellular community and interaction analysis