Biomarker ID and patient stratification

Transforming patient care with AI-Powered Biomarker Analysis

Description

Analyze existing omics data – internal or from published datasets – to confidently stratify patients, monitor treatment efficacy and improve clinical trial design.

Expertise include but not limited to analyzing:

Genomics and **Epigenomics**

Transcriptomics

Other omics

- Single-cell and spatial omics
- Metabolomics
- Proteomics
- Integrative multi-omics
- Pharmacogenomics
- Toxicogenomics

Methodology

Inputs

- Public or client single or multi-omics datasets
- Clinical data; medical records; Real-World Data

Workflow

Data preprocessing	Data harmonization and integration
Feature Engineering	Transform, scale, reduce, standardize and extract relevant features
Multimodal data fusion	Early | Intermediate | late fusion
AI modelling	Supervised, unsupervised, deep learning
Subgroup identification	Tree/Nontree methods
Performance evaluation	Explore quantitative metrics and use statistical analysis to identify patterns or correlations.

Output

- Tailored analysis using the most suitable workflow for your data.

Optimize
- Clinical trial design
- Treatment decisions

Develop
- Companion diagnostics
- Investigational assays

Build
- Models and pipelines for systematic evaluation

Discover & validate
- Signatures and biomarkers
- Patient subpopulations
- Mechanism of Action

- ✓ Predictive
- ✓ Prognostic
- ✓ Safety
- ✓ Risk
- ✓ Diagnostic
- ✓ Response
- ✓ Monitoring

- Interactive reports with visualizations and enriched data that enable quicker, cost-effective and informed decisions towards personalized medicine.

Typical Project Timeline

From 4 weeks, subject to complexity

Select case studies available upon request

Clarivate™