

# Simple & Rapid Analytics for Proteins, Cells & Media in Bioprocessing

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## Bioprocessing Workflows & ValitaCell Solutions

ValitaCell provides innovative analytics to accelerate and enhance upstream biomanufacturing workflows. The ValitaCell solutions offered include high-throughput titer and protein aggregate quantification assays, clone and media selection tools based on robustness to bioreactor-like stressors, and artificial intelligence (Ai) based software to extract information directly from bright-field images of cells.



### High-Throughput Titer & Aggregation Quantification

### Clone & Media Formulation Selection

### High-Throughput Label-Free Cell Viability

#### Valita®Titer & Valita®Agg Plates

- Measure target directly in crude sample
- No additional reagents required
- No wash required
- Quantify 96 crude samples in 15 minutes

#### CellAi® Software

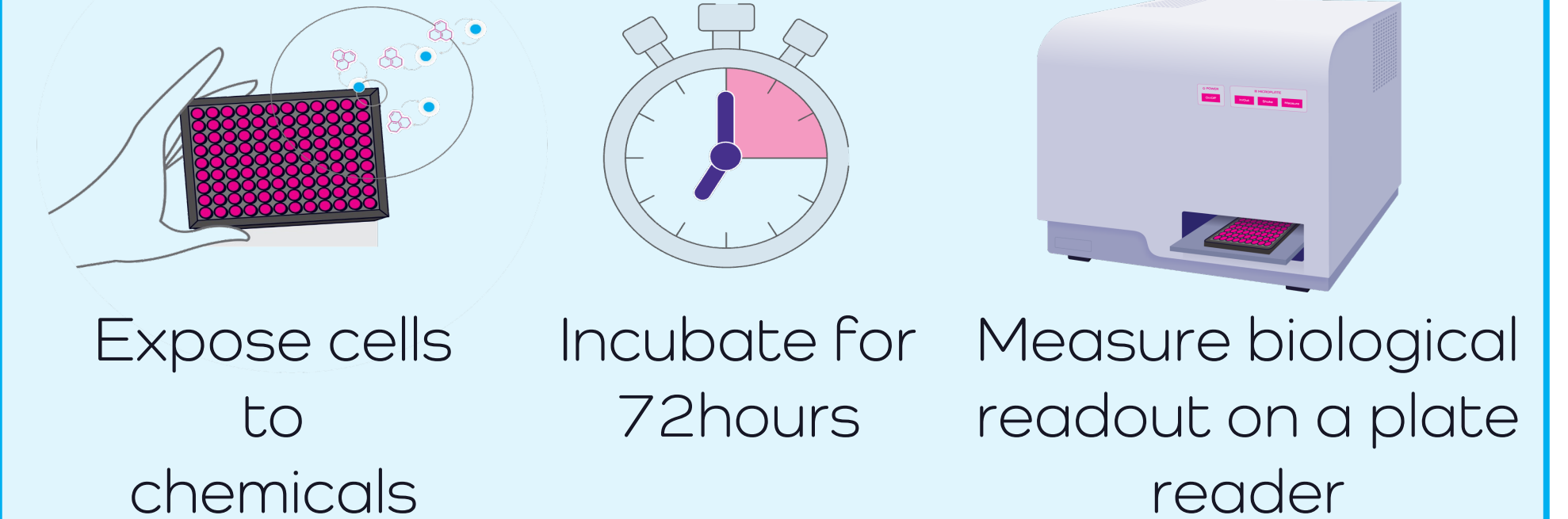
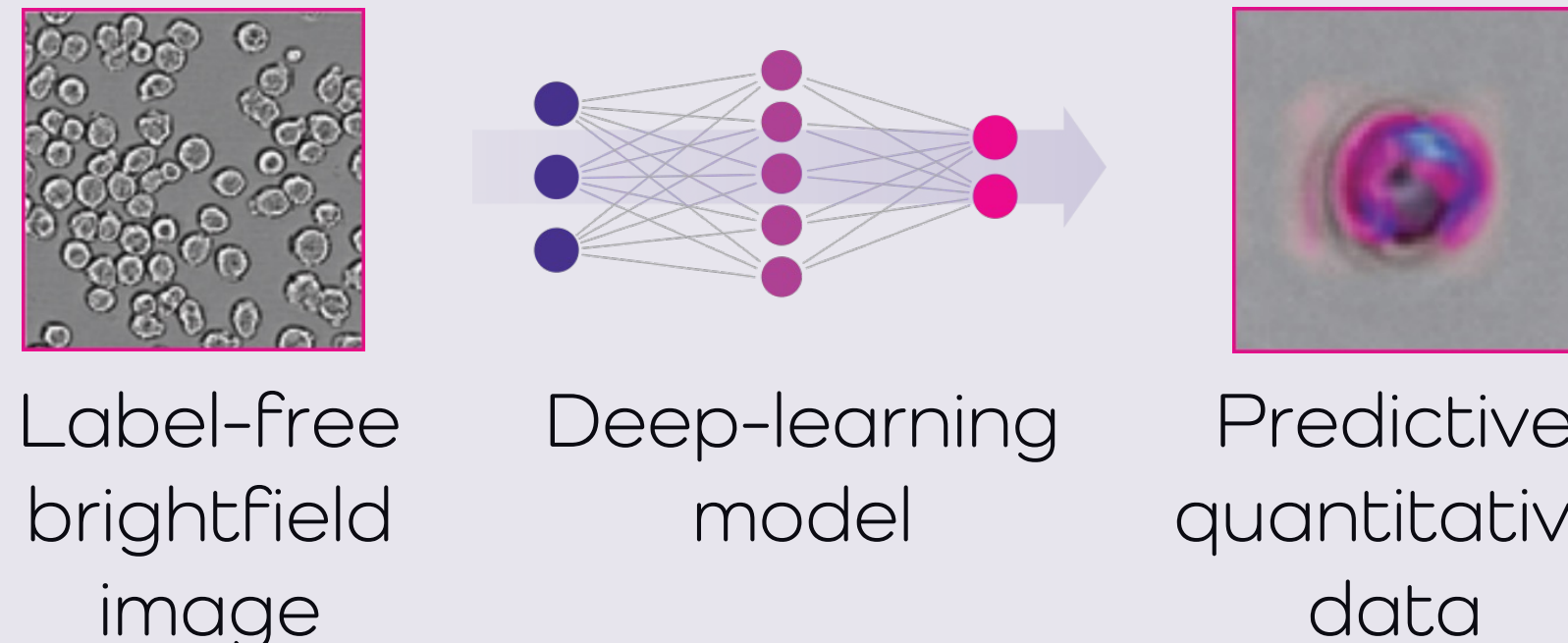
- Adapts to microscope & optical settings
- Skip tedious & complex staining procedures
- Instantaneous results from multi-well plates
- No destructive, zero waste

#### ChemStress® Assay

- Simulate industry relevant bioprocess stresses
- Mimic bioreactor like conditions
- Small-scale, early clone and media selection
- Rapid generation of functional performance data

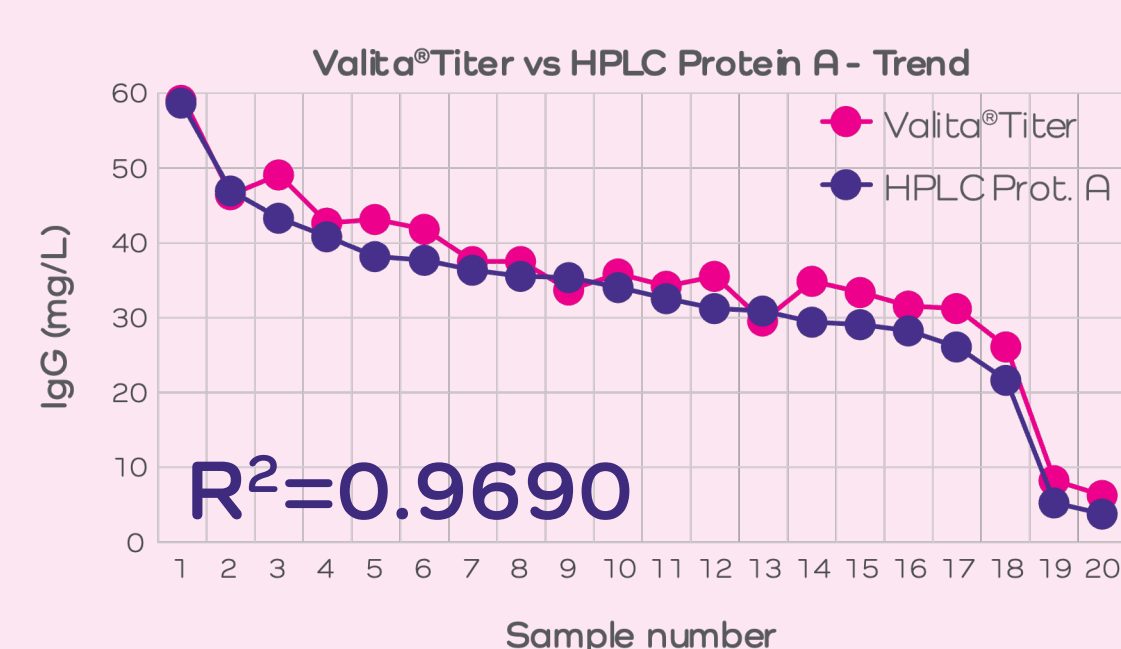
#### Assay Workflow

##### Artificial Neural Network

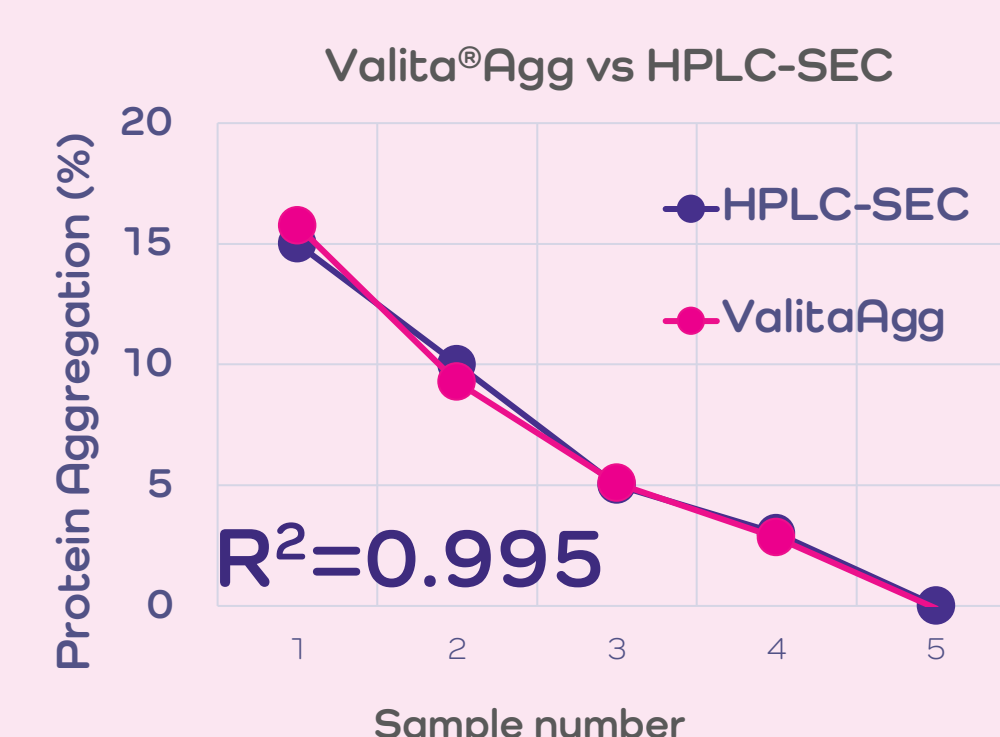


#### Output: Target Quantification

##### IgG: Valita®Titer vs HPLC Protein-A



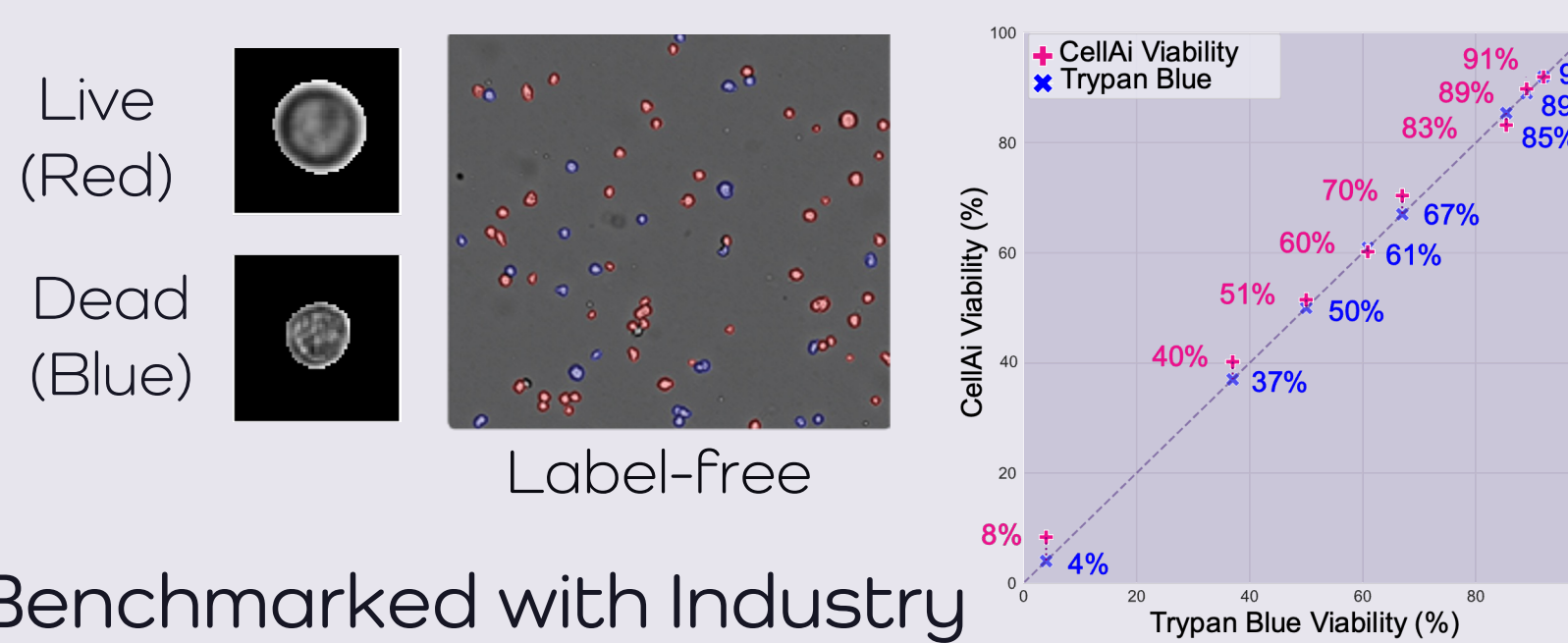
##### Protein Aggregates: Valita®Agg vs HPLC-SEC



Valita®Titer & Valita®Agg plates enable rapid & high throughput IgG & protein aggregate quantification straight from crude samples.

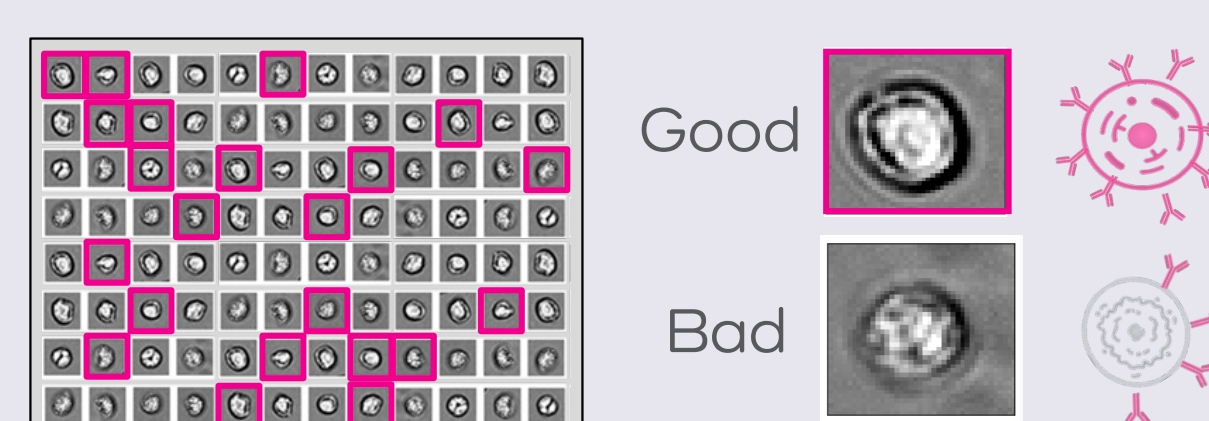
#### Output: Cell Viability

##### Cell Viability



##### New Module Concepts

- Clonal Outgrowth
- Titer Ranking
- Clone Stability
- Cell death modality
- Cell line authentication
- Bioburden

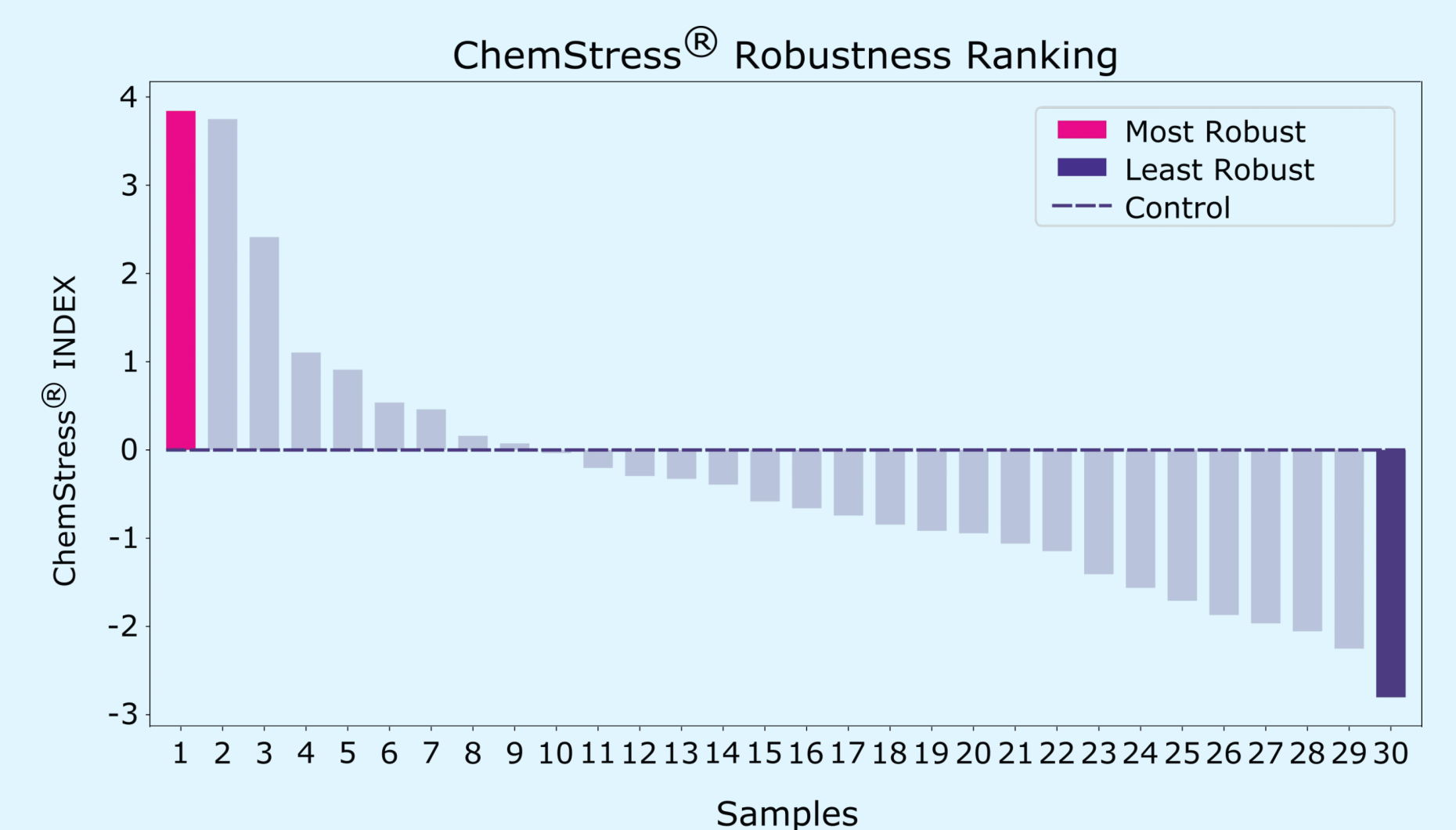


Cell®Ai extracts rich clone & process information directly from label-free images of cells.

#### Output: Clone & Media Ranking

##### ChemStress® CHO Robustness Ranking

##### Bioreactor-like Stresses



ChemStress® enables enhanced clone and media selection through rich functional performance screening.