



# Accelerating Assurance

Enhanced cell line development workflows  
for successful IND submissions

# Solentim technology transforming workflows

## Reducing timelines while building assurance

For over a decade, Solentim technology has helped biotherapeutic businesses to accelerate cell line development workflows, develop assured processes, maximize efficiency and deliver numerous successful INDs.

### Halving the timeline

**Genmab**, the largest independent biotechnology company in Europe.

**Previous workflow:** ClonePix

**Assurance:** two rounds of cloning plus statistical calculation

**Validation timeframe:** 1.5 years

**Workflow time:** 26 weeks

**New Solentim workflow:** VIPS and Cell Metric

**Assurance:** double-lock, image-based

**Validation:** 2-3 months for conversion

**Workflow time:** 10-13 weeks



**ADVANCED** Case Study

**A simple solution which has slashed cell line development times at Genmab**

Genmab, the largest independent biotechnology company in Europe, has successfully accelerated its cell line development process by using Solentim's VIPS and Cell Metric technology. This has resulted in a 50% reduction in development time, from 26 weeks to 10-13 weeks.

**Introduction**  
Genmab is a highly advanced biotechnology company in Europe. The company has a long history of developing and manufacturing biopharmaceuticals. The company has been successful in developing and manufacturing several biopharmaceuticals, including the monoclonal antibody drug, rituximab.

**A Need for Optimization**  
The Cell Line Development (CLD) team at Genmab is responsible for developing and manufacturing cell lines for the production of biopharmaceuticals. The team has been successful in developing and manufacturing several cell lines, but the process was slow and costly.

**A Change in Approach**  
The CLD team decided to optimize their process. They implemented Solentim's VIPS and Cell Metric technology, which allowed them to develop and manufacture cell lines more quickly and efficiently.

**Results**  
The implementation of Solentim's VIPS and Cell Metric technology resulted in a 50% reduction in development time, from 26 weeks to 10-13 weeks. This has allowed Genmab to accelerate its cell line development process and deliver numerous successful INDs.

### Doubling outgrowth

**Janssen R&D**, the number one pharmaceutical company in the world, based on 2020 revenues.

**Previous workflow:** ClonePix

**Assurance:** two rounds of cloning plus statistical calculation

**Cell screening workflow:** 10 weeks

**Colony outgrowth:** 18%

**New Solentim workflow:** VIPS

**Assurance:** double-lock, image-based

**Validation:** 6 weeks

**Colony outgrowth:** 31%



**ADVANCED** Case Study

**Doubling the Speed of Cell Line Development in a Large Pharmaceutical Company**

Janssen R&D, the number one pharmaceutical company in the world, based on 2020 revenues, has successfully accelerated its cell line development process by using Solentim's VIPS technology. This has resulted in a 50% increase in colony outgrowth, from 18% to 31%.

**Introduction**  
Janssen R&D is a highly advanced pharmaceutical company. The company has a long history of developing and manufacturing biopharmaceuticals. The company has been successful in developing and manufacturing several biopharmaceuticals, including the monoclonal antibody drug, rituximab.

**The Problems with the ClonePix Cell Cloning**  
The ClonePix cell cloning process was slow and costly. It required two rounds of cloning plus statistical calculation, which took 10 weeks. The colony outgrowth was only 18%.

**The Solution**  
The Janssen R&D team decided to optimize their process. They implemented Solentim's VIPS technology, which allowed them to develop and manufacture cell lines more quickly and efficiently.

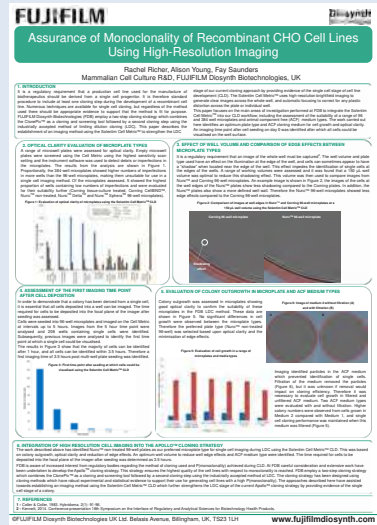
**Results**  
The implementation of Solentim's VIPS technology resulted in a 50% increase in colony outgrowth, from 18% to 31%. This has allowed Janssen R&D to accelerate its cell line development process and deliver numerous successful INDs.



# Micro-droplet workflow assurance

**FUJIFILM DIOSYNTH**, a CDMO using Cell Metric with Sphere Fluidics platform.

Provides visual evidence of monoclonality from different instruments at varying time points.



***“The Cell Metric clonality reports are a critical component of our CLD workflows. Following cell line development custom service projects, we provide these reports directly to our customers for use in their IND filings.”***

MilliporeSigma

***“VIPS and Cell Metric enables us to provide faster and better services to our customers.”***

Shanghai OPM  
Biosciences Co. Ltd.

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# The tools to build the ultimate workflow

With innovative products including Leap-in Transposase®, VIPSTM, Cell Metric®, ICON™, STUDIUSTM and the advanced Insti range of cell growth supplements, Solentim technologies are your building blocks for faster, more assured workflows. Whereas previously it took months with statistical probability-based reporting, it's now weeks with solid, double-lock, image-based confidence.

Solentim continues to invest in the future of cell line development and its expanding importance beyond therapeutic monoclonal antibodies into gene therapy and vaccine development workflows.




**Solentim**

**Cell Metric®**  
The trusted standard for clonal assurance

High contrast imager for single cell identification and clonal outgrowth characterization

**ADVANCED INSTRUMENTS**




**Solentim**

**VIPSTM** Verified In-Situ Plate Seeding  
Accelerating workflows for single-cell cloning

High efficiency, single cell seeding with enhanced, image based regulatory assurance.

**ADVANCED INSTRUMENTS**




**Solentim**

**ICON™**  
The new measure of productivity

The all-in-one benchtop instrument for the selection of leading clones.

**ADVANCED INSTRUMENTS**



**Solentim**

**STUDIUSTM**  
The new standard for cell line development

Data Management Solution for Cell Line Development Projects

**ADVANCED INSTRUMENTS**



## About Advanced Instruments

Advanced Instruments is a global company offering a novel portfolio of analytical tools including, OsmoTECH®, a robust line of micro-osmometers to support bioprocessing and quality control (QC), and Solentim, a portfolio of best in class imaging and single-cell deposition technologies for cell line development workflows and assurance of clonality for regulatory bodies.

Our Solentim portfolio enables the clonal isolation, outgrowth, and characterization of the highest value cells for monoclonal antibody upstream development and cell and gene therapy. This enables our customers to use these clones and have the documentation they were clonally-derived to confidently form their Master Cell Banks.

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