Solentim

Accelerating Assurance

Enhanced cell line development workflows for successful IND submissions

ADVANCED INSTRUMENTS

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

ASSURANCE DOUBLE LOCK

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%

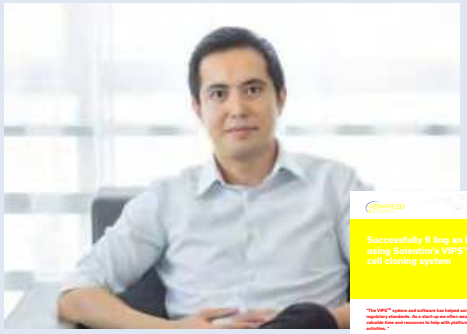
New Solentim workflow: VIPS
Assurance: double-lock, image-based
Validation: 6 weeks
Colony outgrowth: 31%

ASSURANCE DOUBLE LOCK

Start-up to IND

Biotheus Inc., a start-up with successful IND filing

Solentim workflow: VIPS
Comparison to limited dilution: three-fold faster
Assurance: double-lock, image-based
Number of plates: 20
IND submission: successful




Case Study

Successfully fi ling an IND using Solentim's VIPS™ single cell cloning system

Introduction

CLD workflow - the need for speed

Contact us in: alcompanies.com/contact

ASSURANCE DOUBLE LOCK

Celonic AG, a contract development and manufacturing organization (CDMO) specializing in biologics manufacturing from mammalian cell lines.

Previous workflow: limited dilution and FACS
Assurance: statistical
Workflow: 29 weeks
Number of plates: 500
Colony outgrowth: 28%

New Solentim workflow: addition of VIPS
Assurance: double-lock, image-based
Workflow: 17 weeks
Number of plates: 20
Colony outgrowth: 60%
Colony outgrowth: 31%


Case Study

FACS bulk enrichment in combination with the VIPS and Cell Metric delivered significant savings for a CDMO

Introduction

The need to optimise CLD workflow

Developing a shorter workflow with reduced FTE time

The need for gentler fluidics

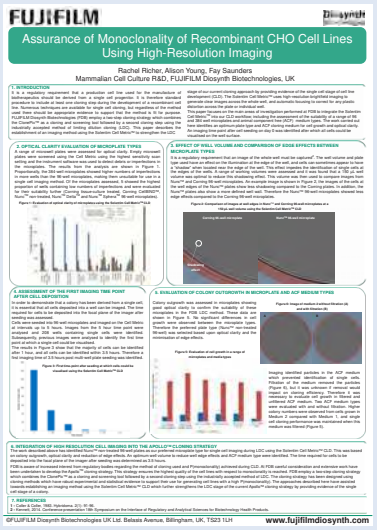
ASSURANCE DOUBLE LOCK

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.

ASSURANCE DOUBLE LOCK


FUJIFILM

Assurance of Monoclonality of Recombinant CHO Cell Lines Using High-Resolution Imaging

Rachel Richer, Alison Young, Fay Saunders

Mammalian Cell Culture R&D, FUJIFILM Diosynth Biotechnologies, UK

1. INTRODUCTION

2. OPTICAL CLARITY EVALUATION OF MICROPLATE TYPES

3. EFFECT OF WELL VOLUME AND COMPARISON OF EDGE EFFECTS BETWEEN MICROPLATE TYPES

4. ASSESSMENT OF THE FIRST IMAGING TIME POINT

5. EVALUATION OF COLONY OUTGROWTH IN MICROPLATE AND ACF MEDIUM TYPES

6. INTEGRATION OF HIGH RESOLUTION CELL IMAGING INTO THE APOLLO™ CLONING STRATEGY

7. REFERENCES

FUJIFILM Diosynth Biotechnologies UK Ltd. Belasis Avenue, Billingham, UK, TS23 1LH www.fujifilmdiosynth.com

"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."

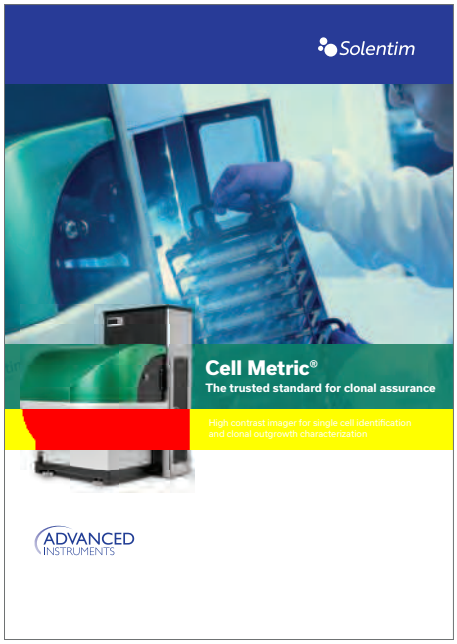
Shanghai OPM
Biosciences Co. Ltd.

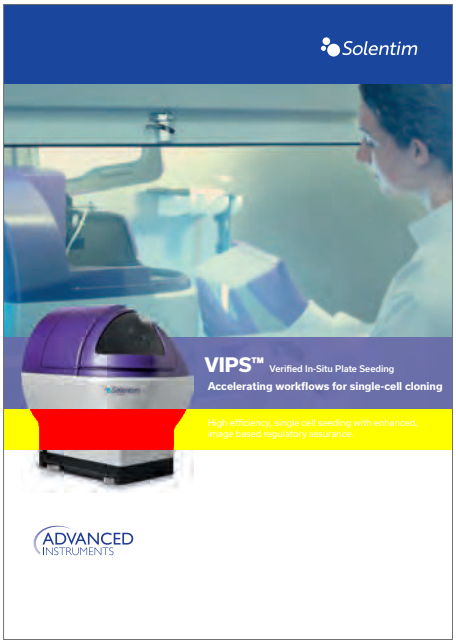
For a copy of our latest product brochures visit: www.aicompanies.com

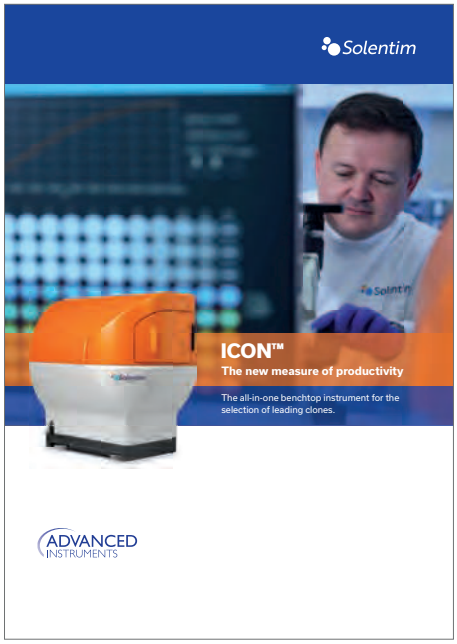
The tools to build the ultimate workflow

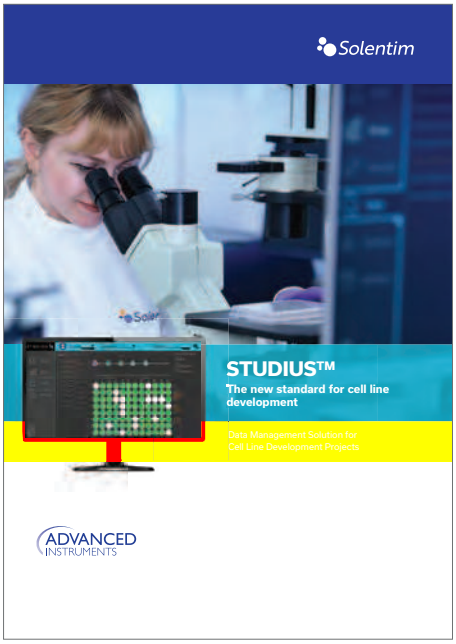
With innovative products including Leap-in Transposase®, VIPS™, Cell Metric®, ICON™, STUDIUS™ and the advanced Insti range of cell growth supplements, Solentim technologies are your building blocks for faster, more assured workflows. Whereas previously it took months with statistical probability-based 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.









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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