Solentim

Cell Metric® X

Clonal imager with automated assurance

Reduce time and effort with artificial intelligence driven Automated Evidence of Clonality

ADVANCED INSTRUMENTS

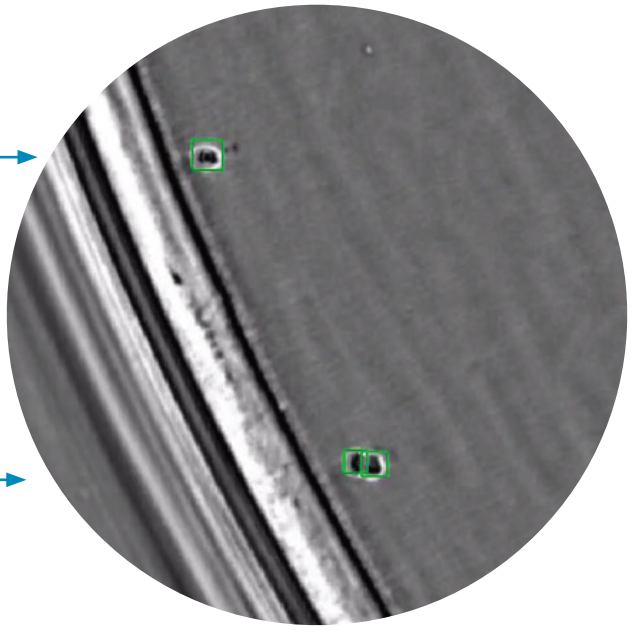
Artificial intelligence—cell identification, simplified.

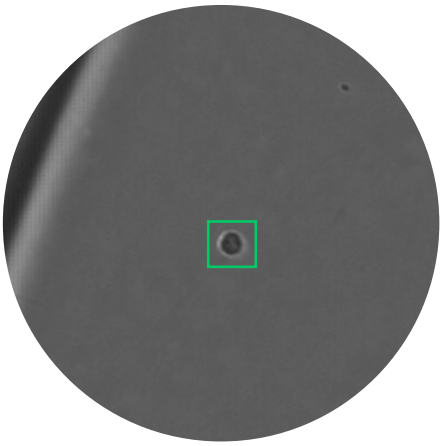
Cell Metric® set the standard for high-contrast imaging. Cell Metric X raises the bar, delivering faster clonality verification to accelerate your path to IND submission—with zero compromise in quality.

Until now, identification of single cells meant waiting weeks until colonies formed and working backwards through images. Now, with the power of artificial intelligence-based Automated Evidence of Clonality (AEC), CHO, HEK and iPSC cells are identified automatically on day 0 without user bias.

With Cell Metric X, most of the image analysis required by other methods isn't needed. Complete projects hours to days faster and dramatically speed up progress from testing to IND submission.

Know on day 0 that your experiment was a success.
Get unrivaled clonality assurance—instantly—with Cell Metric X.





iPSC cells identified

Even the most challenging cell types such as translucent iPSC cells are captured in high definition.

Cell Metric X

Key Features and Options:

- Automated Evidence of Clonality saves the user time by pre-identifying cell locations
- Integration with the STUDIUS™ data management platform enables streamlined workflow and quality data management across the full Solentim ecosystem
- High throughput 10-position plate stacker
- Automatic clonality report for confident IND submission
- Automated system setup for ease-of-use and reduced learning curve

Superior image quality

High quality imaging and highly tuned brightfield optical path enable fast and confident identification of cells.

Confluence Precision Scanning

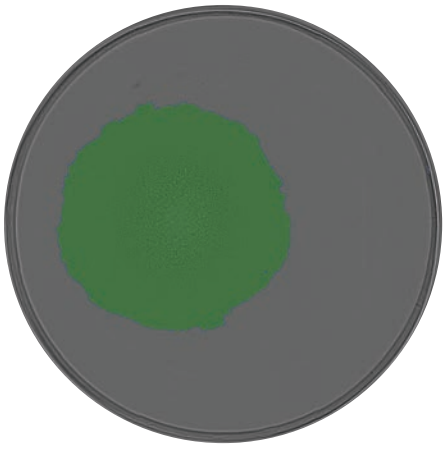
New high precision confluence scanning option saves time by showing optimal timepoint for cell expansion.

Intuitive interface for ease of setup and use

Automated setup and optimization of imaging parameters, including focus.

Evidence compiled automatically

Automated clonality report compiles images, time stamps, annotations and comments as a solid record of evidence ready for confident IND submission.



HEK cells analyzed

HEK cell colony areas defined by both human and artificial intelligence assessment are shown in green. Blue shading shows the area of disagreement, demonstrating accuracy.

A highly efficient process from day 0 to submission

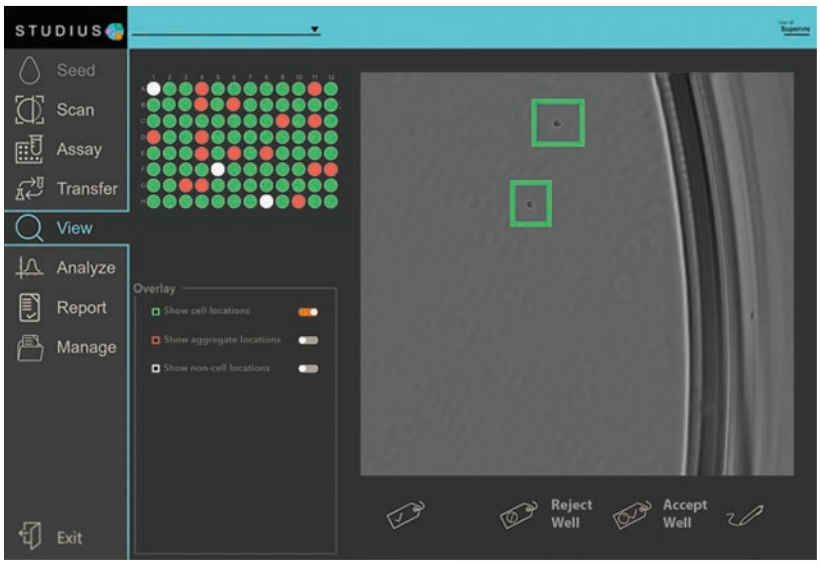
Streamline your image analysis

Confirm and annotate single cells with a single image on day 0, with artificial intelligence-based Automated Evidence of Clonality (AEC).

Artificial intelligence-driven cell identification and analysis

Automated Evidence of Clonality (AEC) identifies cells on day 0, saving hours of analysis per plate.

AEC can differentiate and identify cells - highlighting the location and allowing the user to annotate and accept or reject the whole well.

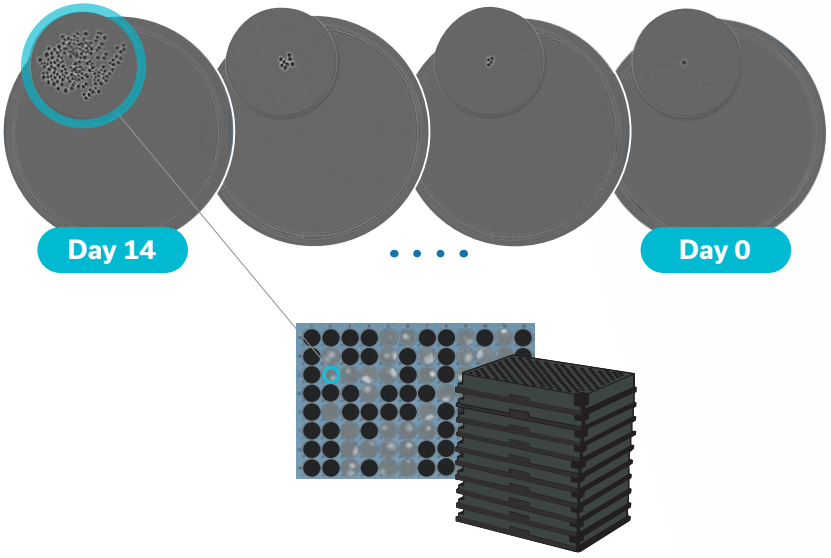


Automated ..... VS ..... Manual

Seconds .... VS .... Weeks

Shorten project timelines by weeks

Manual analysis of every well in each plate across multiple time points back to day 0 is a time-consuming and labor–intensive effort that extends project timelines by weeks or more and introduces risk of error.



Request a Demo
bit.ly/AI-DEMO

Automate your process

Cell Metric X is available in two "walk-away" configurations for increased efficiency.

Cell Metric X R

For easy integration with third-party robotics via API and barcode reader

Cell Metric X HT

System with automated, temperature-controlled 10-position plate stacker

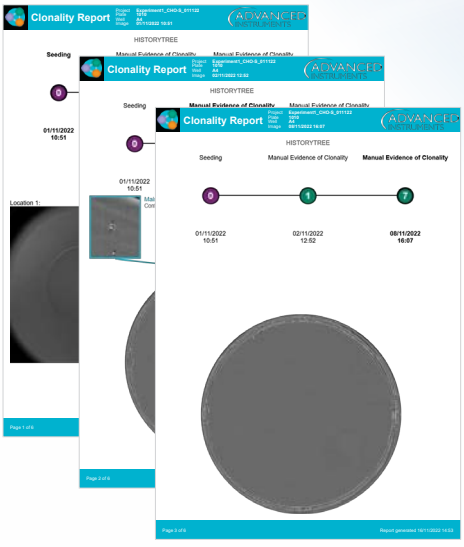
Rationalize your data analysis—No more spreadsheets!

Bringing Cell Metric X data into the STUDIUS data management platform preserves data integrity and provides traceability. It also allows your imaging data to be combined with VIPS™ PRO seeding data and ICON™ titer and cell viability results to provide a complete overview of your CLD process from seeding to final clone selection—without cumbersome spreadsheet-based comparisons, removing hours or days of analysis time.

Simplify your regulatory submission

STUDIUS provides a common database, robust audit trails, multiple user access levels and sample tracking to ensure data integrity, supporting requirements to achieve 21 CFR Part 11 and EU GMP Annex 11 compliance.

In seconds, create a fully annotated document showing the complete outgrowth history from single cell to colony. An audit trail for master cell bank (MCB) production provides additional assurance when submitting to regulatory bodies.



STUDIUS Clonality Report

iPSC production, reimagined with Automated Evidence of Clonality and confluence precision scans

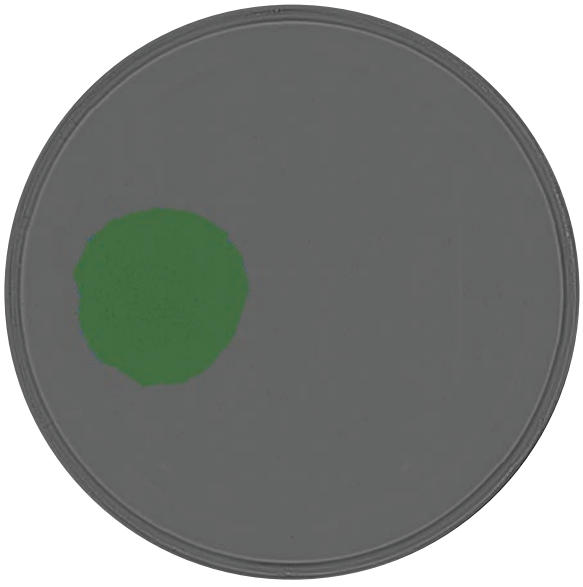
Cell Metric X identifies the monoclonal iPSC cells instantly on Day 0, accelerating your workflow by eliminating the time and cost of analyzing non-clonal colonies.

iPSCs are prone to clumping which increases the likelihood of cell aggregates and contributes to an "outgrowth bias," where a higher proportion of colonies will not be clonally derived.

With the traditional method of limiting dilution, only 30% of the wells will likely contain single cells – and outgrowth bias drives this proportion even lower.

Confluence Precision scanning

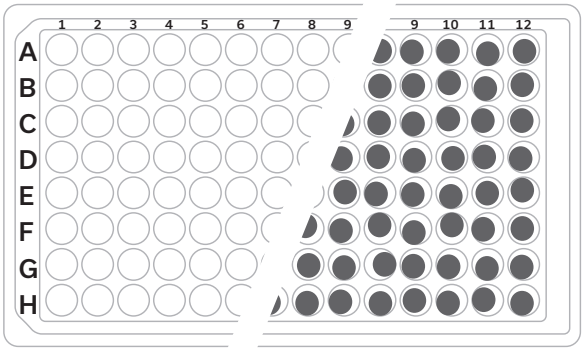
With an accuracy of +/- 5%, the Confluence Precision scan allows the user to pinpoint the optimal moment for cell expansion. The risk of differentiation and loss of pluripotency can be mitigated.



Confluence Precision Scan of iPSC colony

Limiting Dilution— save weeks of waiting

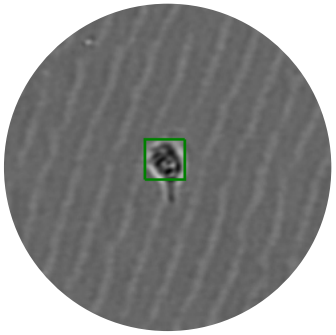
Get image-based assurance of the single cell on day 0 with Cell Metric X without the wait.



Waiting 14 days for colony growth may be the first indicator of incorrect cell suspension, thereby extending project timelines.
Example: too dilute (left) or too concentrated (right)

Identify faster with artificial intelligence

The Automated Evidence of Clonality neural network has been trained to detect iPSCs. Combined with high-quality images this means you're assured of unbiased results without the limitations of limiting dilution.



Improve iPSC outgrowth

Cell Metric X, combined with the gentle single cell seeding of VIPS PRO and specially formulated MatriClone iPSC matrices, provides the most powerful package for the cell line development of iPSCs available today.

Expand efficiency with GMP-certified VIPS PRO Single Cell Seeder

Double-Lock Assurance

For the ultimate double lock of clonality assurance, combine Cell Metric X clonality data with VIPS PRO's AI based single cell droplet detection.

GMP-certified features

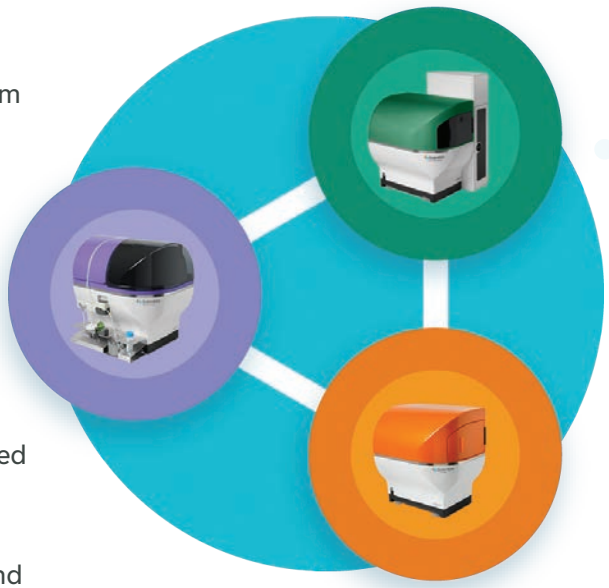
- Gamma-irradiated single-use, Seeding Kits eliminate the possibility of sample carryover and contamination and include validation report.
- Security features to ensure 21 CFR Part 11 compliance include system access control for authorized users, data integrity, and audit trail for record-keeping.

The Solentim Ecosystem:

Bring consistency to your cell line development

For streamlined workflows and quality data assurance, Cell Metric X integrates seamlessly into the entire Solentim ecosystem. With STUDIUS as its core, the Solentim ecosystem brings together:

- **Critical single-cell seeding data from VIPS PRO**
- **Clonality and confluence data from Cell Metric X**
- **Titer and cell IgG productivity data from ICON**



By keeping your CLD within the Solentim Ecosystem you're assured consistency and efficiency in your process. Automated analysis helps eliminate transcription errors caused by labor-intensive and manual processes, improving data quality. Ranking and decision-making are performed automatically and instantly according to user-defined parameters.

Get results in minutes, not days and say goodbye to spreadsheets.

Contact Us
Bit.ly/CONTACT-AI

ADVANCED INSTRUMENTS

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