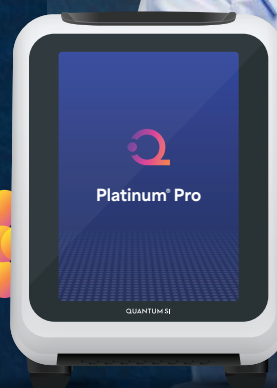


## Topics covered in this issue:

- Next Generation Protein Sequencing
- Label-free Assessment of Live-Cells
- DNA & RNA from FFPE Samples
- Consistent Nuclei Isolation
- Centrifuge- & Label-Free Cell Enrichment
- Image-guided Microfluidic Cell Sorting
- Tissue Clearing & Staining
- Cell Culture under Hypoxia and Pressure
- Advanced 3D Tissue Culture
- Single Cell DNA Sequencing
- Digital Imaging & Cell Counting
- Advanced Western Blot Imaging
- Spatial Multi-Omics
- ... and many more



**Quantum-Si The Protein Sequencing Company™**  
**Powering the Proteomic Era**

# Your Complete Proteomics Solution

Quantum-Si the Protein Sequencing Company™

## Meet Platinum – Quantum-Si Next Generation Protein Sequencer™

The next frontier of discovery aims to revolutionize understanding of the human proteome and explore function at the cellular level. Quantum-Si brings the groundbreaking power of single-molecule proteomics with the first-to-market Next-Generation Protein Sequencer™ to every lab, everywhere. The Platinum end-to-end solution includes everything you need to prepare libraries, sequence proteins, and analyze results. Every lab can quickly and accurately identify proteins with a simple workflow that makes data interpretation and discovery accessible.

- **Antibody Characterization**
- **Peptide and Protein Verification**
- **Biomarker Identification**
- **Protein Variant Detection**
- **Post Translational Modification Analysis**
- **Protein Barcoding**

### Innovative Technology: How Platinum Works

A kinetic signature comprises the measurable characteristics of the series of dynamic recognizer events that uniquely identifies a peptide. Kinetic signatures change dynamically with alterations in amino acid and post-translational modifications (PTMs), providing a reliable means to accurately align peptides to their respective proteins. Unlike other technologies, kinetic signatures offer a robust and confident approach to this alignment.

### Why choose Platinum?

**Platinum Differs from Mass Spectrometry:** Mass spectrometry infers protein identification based on the mass:charge ratio which may not distinguish protein variants of similar size.

**Platinum Differs from Immunoassays:** Single-molecule resolution enables assessment of what is actually happening at the amino acid level.

**Platinum Differs from Edman Degradation:** Platinum offers easy sequencing workflows and affordable protein sequencing solutions.



Next-Generation Protein Sequencing™ reveals insights to critical questions:

- **Is a specific protein present?**
- **Which proteins are important to health and disease?**
- **How do proteins change with disease and in response to therapy?**
- **With Next-Generation Protein Sequencing, you can answer these critical questions quickly, right in your own lab.**

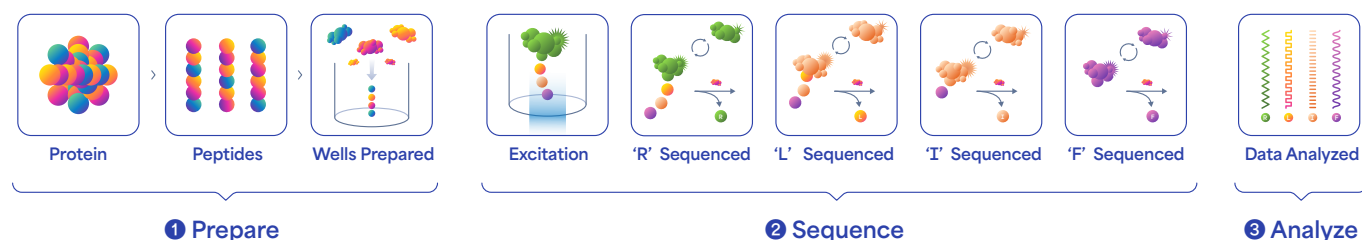
### Revolutionize Your Proteomics Research with Platinum!

Join the movement to democratize proteomics and unlock new biological insights.

Platinum offers a simple workflow in a space-saving benchtop instrument with the precision to accurately detect protein variants and modifications.

**Contact us in order to discuss your Next-Generation Protein Sequencing Needs!**

## End-to-End Proteomic Solution





# Pioneering the Next Generation of Western Blot Imaging Technology

Produce Clear and Desirable Protein Images

## Discover e-BLOT's Lens-Free TOUCH IMAGER

e-BLOT devotes itself to making Western blot imaging process easy, reliable and replicable, so that you don't have to repeat exposures and waste time on a technical challenge, rather than a scientific challenge.

Contact chemiluminescence imaging is an imaging process in which the lens is removed, allowing the membrane direct contact with the photographic chip so the imaging process can be done in just 1 second. Moreover, the sensor chip area is 130 times larger than the conventional cold CCD imaging, and the individual pixel size area is also increased by over 400 times.

### The TOUCH IMAGER eliminates many bottlenecks of traditional cold CCD imaging:

- The Western blot membrane is directly placed on the photographic chip for imaging, all signals are captured without any light loss, which greatly improves the sensitivity and speed of imaging.
- The super large size of the photographic chip with ultra high signal acquisition capacity improves the sensitivity and speed of imaging.
- The huge pixels can increase the quantification range by two orders of magnitude, enabling precise quantification of samples.
- The new imaging technology removes any lens for imaging, thus eliminates image distortion caused by the lens and provides more accurate results.



**You will not regret testing this amazing tool!  
Contact us for a free demo!**

**Ultra High Sensitivity:** The direct touch imaging system with no lens captures all signals without losing even the weakest bands. The super large size of the photographic chip also improves sensitivity that enables more accurate results.

**Broader Dynamic Range:** The new technology significantly increases the sensitivity by 2-3 logs for even the weakest signals, thus greatly reducing chances of signal loss or imaging failure.

**Imaging in Just 1 Second:** The whole imaging process is designed to be as simplified as possible to save your time in the lab. Just loading the sample onto the chip and press the imaging button, your imaging result is available right away.

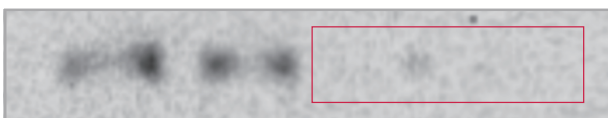
**Save Up to 90% Space:** Using the latest technology available, our Touch Imager features a compact design that is sure to fit laboratories big or small. Its all-in-one solution additionally eliminates the need for other equipment or dedicated rooms, further saving space on the location.

### Capture the Unseen Proteins: TOUCH IMAGER vs Cooled CCD

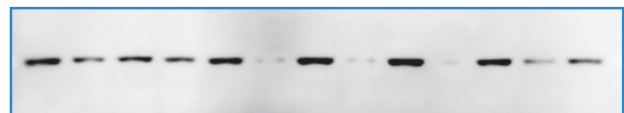
TOUCH IMAGER 2 seconds exposure



Other brand 120 seconds exposure



TOUCH IMAGER 1 second exposure



Other brand 100 seconds exposure



# Untangle the Complexity of Cancer with True Multi-Omics

## Single-cell DNA Sequencing and Protein Analysis

### The Mission Bio Tapestri Platform



The Mission Bio Tapestri Platform is the only system capable of simultaneously providing both genotype and phenotype data from the same cell, across thousands of single cells.

simultaneous single-cell DNA and protein analysis, configure your own antibody cocktail from a growing catalog of pre-optimized antibody oligonucleotide conjugates (AOC). Or, start with the pre-designed 45-protein TotalSeq™-D Heme Oncology Cocktail. TotalSeq™ oligo-conjugated antibodies from BioLegend integrate seamlessly into the Tapestri single-cell DNA sequencing workflow to amplify the power of single-cell analysis.

#### Mission Bio Tapestri is a targeted solution for:

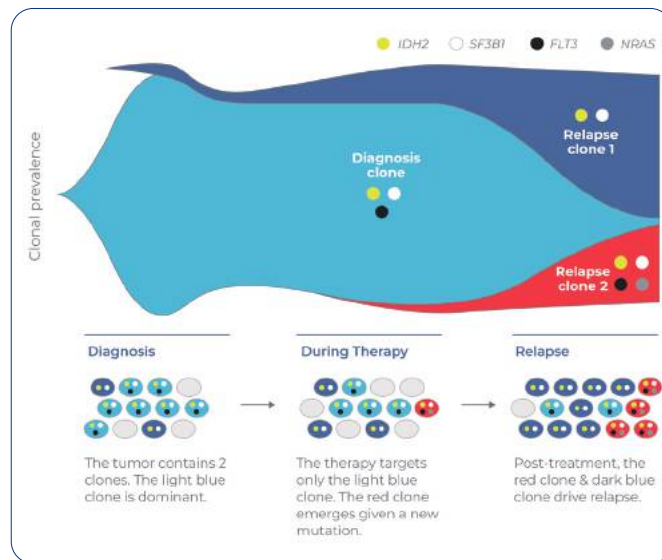
- Hematologic Malignancies
- Solid Tumor Profiling
- Genome Editing Validation
- Custom-designed Solution

Load your cells on the cartridge and use the proprietary two-step microfluidic workflow of the Tapestri for single-cell encapsulation and barcoding. Sequence the genomic regions of interest and the oligo-tagged antibodies bound to the same single cell to track clonal evolution, reconstruct phylogenetic trees, uncover zygosity and mutation co-occurrence, reveal therapy resistance mechanisms, and monitor disease during remission to track MRD (minimal residual disease).

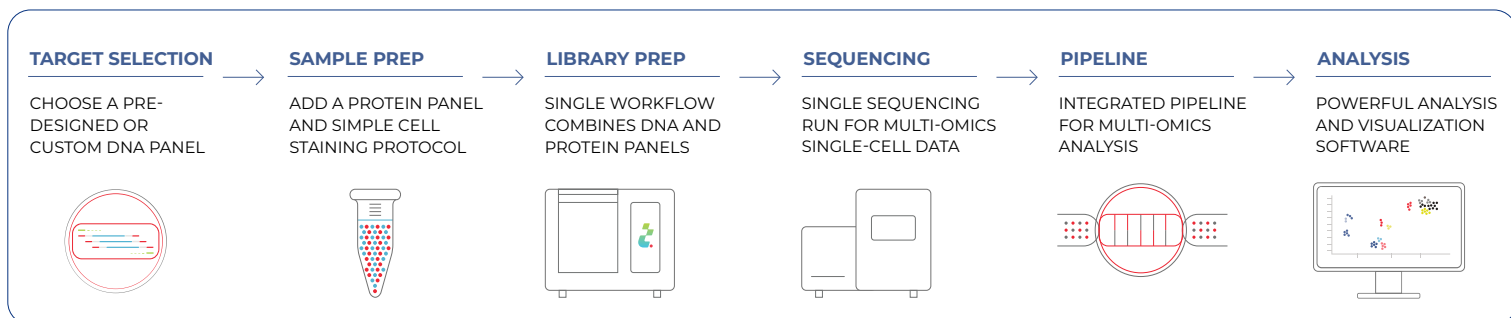
#### Obtain multiple analytes from a single cell:

- Single nucleotide variants (SNVs)
- Copy number variations (CNVs)
- Protein expression

You can run targeted single-cell DNA panels with catalog and customizable content, so you can focus on the mutations and regions of interest that are most informative for your disease research. For



- **NEW:** do more single cell with less – 20,000 cells input possible
- Single-cell DNA & protein analysis from up to 10,000 single cells
- High sensitivity for rare clones – down to 0.1%
- Intuitive software for panel design, data analysis and visualization
- Compatible with TotalSeq™-D antibody content from BioLegend





# Revolutionizing 3D Cell Culture

## Ready-to-use Photocrosslinkable Extracellular Matrices

### Introducing LunaGel™ by Gelomics

Are you ready to elevate your research to the next dimension? We proudly present LunaGel, the game-changing hydrogel platform that surpasses traditional hydrogels like Matrigel and empowers scientists to unlock the full potential of 3D cell culture.

#### What Makes LunaGel Unique?

LunaGel is not just another hydrogel; it's a leap forward in biomimetic technology. Designed to closely replicate the natural extracellular matrix (ECM), LunaGel provides an optimized environment for cells to thrive, organize, and communicate—just as they would in the human body. Its tunable mechanical properties and customizable composition make it the ideal solution for a wide range of applications, from cancer research to regenerative medicine.

#### Key Features and Benefits:

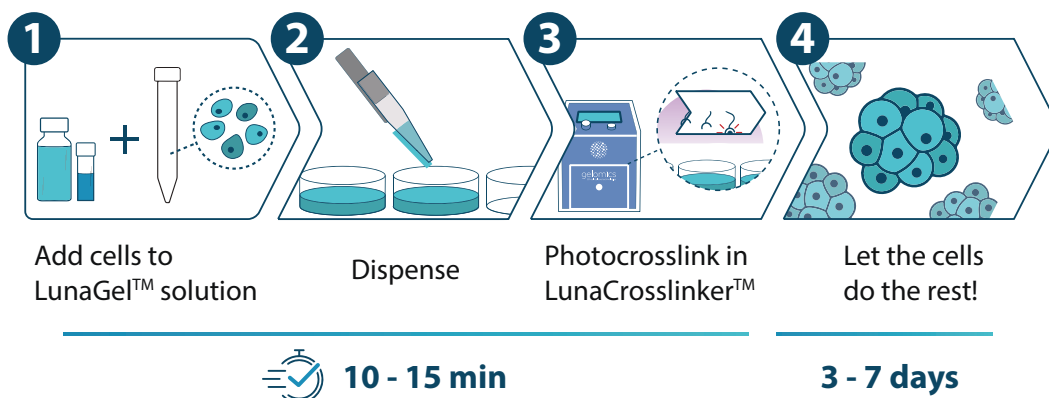
- **Tailored to Your Research Needs:** LunaGel is fully customizable, enabling researchers to fine-tune stiffness, biochemical cues, and crosslinking density to suit specific cell types and experimental goals.
- **Enhanced Cell Viability:** With its biocompatible design, LunaGel promotes superior cell viability, differentiation, and function, ensuring your experiments yield meaningful insights.
- **Ready-to-Use Convenience:** Skip the hassle of complex preparation. LunaGel comes pre-packaged and ready for use, streamlining your workflow and saving valuable lab time.
- **Reliable Reproducibility:** Consistent results are critical for advancing science. LunaGel's standardized formulation ensures reproducibility across experiments, giving you confidence in your findings.



**Join the Revolution!** Don't let outdated methods hold back your research. Experience the LunaGel advantage and see how it transforms your 3D cell culture experiments.

**Contact us now to learn more, request a sample, or speak with our team of experts.**

Create physiological cell culture models in 15 min.



# Visualize and Sort High Integrity Cells

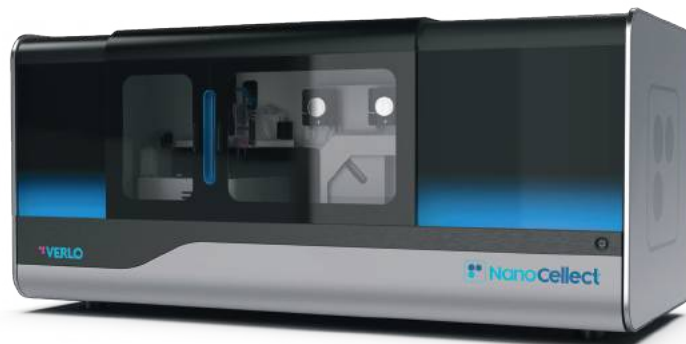
Sort Cells You Can See With the Gentle Microfluidics You Know

## Discover NanoCollect' World's First Two-Laser Image-guided Cell Sorter

A classic challenge in biological research: how to visualize and sort cells effectively, easily, and of high quality. As science continues to move forward into increasingly complex realms, the **VERLO Image-Guided Cell Sorter** is now providing conventional flow cytometry and cell sorting along with the ability to perform imaging analysis to identify and sort cells based on morphology, sub-cellular localization and more.

The **VERLO** instrument significantly expands the capabilities of gentle benchtop microfluidic cell sorting. With two lasers and nine colors, plus 3 label-free parameters, it maintains simple workflows for either bulk sorting or single-cell dispensing into 96- or 384-well plates with an integrated cell dispenser. This flexibility in performance, along with the additional abilities of dual-laser cytometry and imaging makes it ideal for use in many different research fields and application areas like stem cells, single-cell genomics, cell line development, gene editing, antibody discovery, immunology, infectious disease, and more.

**Cell sorting has never been so easy!**



### Flow and Imaging Detectors

Extend conventional flow cytometry with rich image and morphology data enabled by our unique detection architecture with dual lasers and 9 fluorescent colors.



### Seeing Is Believing

Images provide immediacy for data and allow generation of novel hypotheses and insights.



### High Sensitivity and Resolution

With an optical resolution of 1 micron and < 250 MESF sensitivity, along with transmission, forward and back scatter, the VERLO can detect particles as small as 1  $\mu\text{m}$ .



### Compact, Simple and at Your Bench

Intuitive software, fixed optics, no fluidics cart and less than one minute clean-up time. With a small footprint, NanoCollect's is redefining the benchmark for Imaging Cytometry at the bench.



### Label-Free Imaging

Combine imaging and flow cytometry transmission, forward and back scatter measurements for label-free image analysis and sort of cells based on morphology.



### Image Feature Extraction

Quantitatively characterize cells with automated feature extraction for physical dimensions and textures.



### Healthy Cells

At < 2 psi, the VERLO is gentler than any conventional cell sorter, enabling healthier cells post-sort, especially for sensitive engineered lines, primary cells, and stem cells.

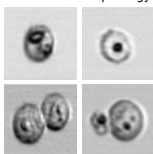


### Contaminant- and Biohazard-Free

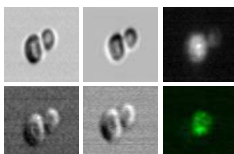
Disposable, aerosol-free microfluidic cartridge allows for sterile sorting that protects the sample from the environment and scientist from the sample.

## VERLO Key Applications

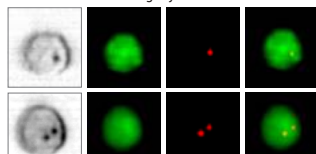
### Label-Free Morphology



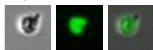
### Cell-Cell Interactions



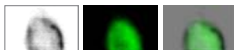
### Phagocytosis



### Organelle Identification



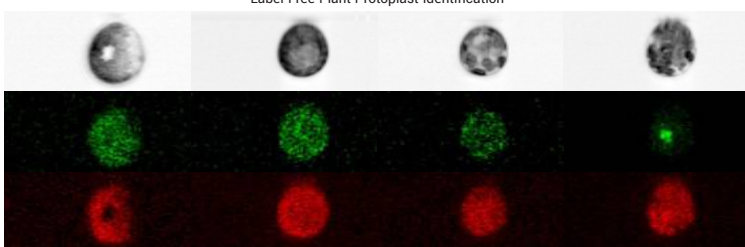
### Nuclear Translocation



### Marine Biology



### Label-Free Plant Protoplast Identification



# Discover the Future of Spatial Biology

Expand Your Research with Unmatched Flexibility and Sensitivity

## Introducing the Vizgen MERSCOPE® Ultra

MERSCOPE® Ultra ushers in a new era of spatial genomics. With a significantly expanded imaging area and increased speed, MERSCOPE Ultra allows for the analysis of larger organs and multiple tissue samples on a single slide at unmatched data quality — a first in the world of spatial biology.

### Maximize Your Insights with Advanced MERFISH Technology

MERSCOPE Ultra doesn't just expand your imaging area; it amplifies the quality of data you can obtain. Engineered for excellence, the platform captures more high-quality MERFISH data in every experiment, enabling deeper insights into cellular function and gene expression.

### Stay Ahead in Your Research

With 3x increased imaging area and 2x speed, coupled with enhanced MERFISH sensitivity, MERSCOPE Ultra will offer greater sample flexibility and throughput, accelerating both human and translational research.

**Don't miss out on this opportunity to take your spatial omic research to the next level.**



### Why choose MERSCOPE Ultra?

- **Broad Imaging Area:** Process up to 3 cm<sup>2</sup> of tissue per slide, allowing researchers to place multiple tissues or analyze larger organs and species for the first time.
- **Unprecedented Speed:** Engineered for high-performance and optimized for throughput, MERSCOPE Ultra enables you to gather high-quality data faster than ever before.
- **Optimized Data Quality:** With the new MERFISH 2.0 chemistry, enjoy enhanced performance, particularly in archival samples like FFPE, ensuring both sensitivity and reproducibility across diverse sample types and RNA qualities.
- **Flexible Reagent Usage:** The only spatial platform offering adjustable flow cells, MERSCOPE Ultra ensures efficient reagent consumption based on the imaged area, balancing economy with performance.

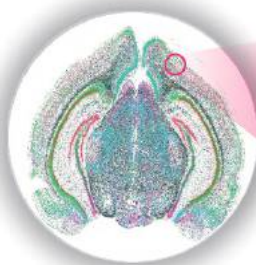
### Visualize the Transcriptome with MERSCOPE Ultra®

MERSCOPE Ultra™ offers two flow cell sizes, which enable cost efficiency and flexible experimental setups. The larger flow chamber expands the imageable area to 3.0 cm<sup>2</sup>, efficiently accommodating larger and multiple smaller samples.

Boost your research productivity with a system that supports imaging up to 9 cm<sup>2</sup> per week with a large flow cell or 6.25 cm<sup>2</sup> per week with the standard flow cell.

### MERFISH • Multiplexed Error Robust Fluorescence *In-Situ* Hybridization

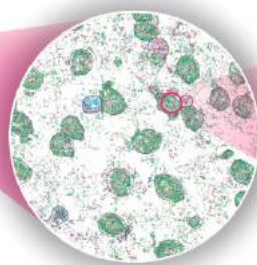
Profiling 483 genes with subcellular resolution across a full mouse coronal slice



#### WHOLE SECTION

9 x 7 mm

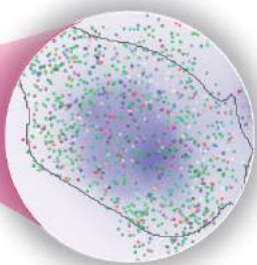
**Organization of tissue**



#### WIDE FIELD OF VIEW

200 x 200 micron

**Cell interaction/function**



#### SUB-CELLULAR

12 x 12 micron

**L2/3 IT Glutamatergic neuron**

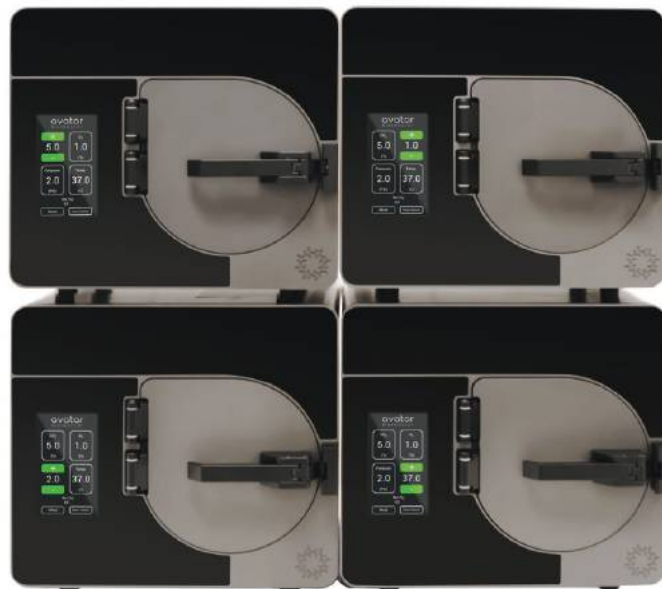
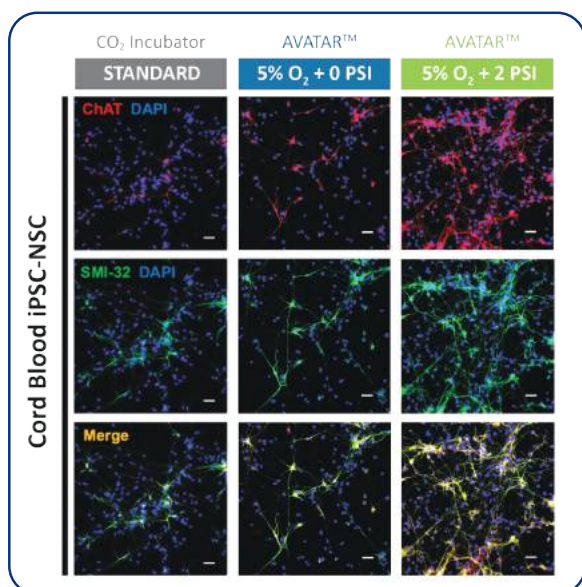


# Control Your Stem Cell Destiny:

## Improved Differentiation, Maturation & Proliferation of Stem Cells

### Xcell Biosciences' Avatar™ System

The ability to derive patient-specific neuronal cell types has proven to be a critical tool for human developmental studies, drug discovery, and regenerative medicine. The ability to direct the differentiation of stem cells into neuronal cell lineages or other cell types has enabled investigators to develop models for a variety of diseases. However, there remains an urgent need to be able to produce these phenotypically mature cell types more efficiently and consistently in vitro, as current methods are inherently time consuming with high donor-to-donor variability in efficiency.



cently reported on improved proliferation of mesenchymal stem cells under hypoxia and pressure, published in International Journal of Molecular Sciences. (doi:10.3390/ijms21197092)

Finally, an incubator designed specifically for the cultivation of primary human cells. The AVATAR System lets you fine-tune oxygen and pressure levels to cater culture conditions to your cell type of interest. Customizing settings based on native and physiological conditions allows cells to behave as they would in vivo, because the human body microenvironment is hypoxic and pressurized.

Using the Xcell Biosciences AVATAR™ System, you can modulate both oxygen and pressure in vitro to better mimic the microenvironment of the human body, e.g. the neural cell niches during the differentiation and maturation process. As a result, this technology has enabled researchers to generate neuronal cell types with greater efficiency, improved marker expression at earlier time points, and with improved reproducibility across donors.

#### Hypoxia & Pressure Drive More Efficient Differentiation and Increases Proliferation

Oxygen and pressure can be leveraged, in culture, towards modulation of stem cell state by inducing gene expression changes as well as altered epigenetic or metabolic states. Furthermore, oxygen and pressure levels can be fine-tuned to enhance cell proliferation. Dr. Sang Eon Park et al. from Samsung Medical Center, Korea, re-

#### Additional Stem Cell Applications Improved by Hypoxia & Pressure Control with the AVATAR™

- *Fibroblast to iPSC Reprogramming*
- *iPSC to NPC Neural Induction*
- *NPC to Motor Neuron Maturation*
- *NPC to CNS-type Neuron Maturation*
- *Late-stage Cardiomyocyte Maturation*

# Sample to Genomics Solution

## Single Cells or Nuclei from Solid Tissues in Minutes Introducing S2 Genomics' Singulator Platform

S2 Genomics is developing integrated sample preparation systems for processing tissues into genomic samples for single-cell genomics and cell biology studies. The Singulator enables rapid and hands-off tissue dissociations, making it easy for researchers to reproducibly prepare suspensions of high quality nuclei or cells for a wide range of omics applications.

The Singulator 100 and 200 overcome the challenges of manual tissue preparation methods by producing consistent cell or nuclei isolations from a variety of solid tissue samples, reducing hours of hands-on processing to minutes. Its ability to perform cold dissociation minimizes the expression of stress-related genes in cells and helps preserve RNA quality in nuclei.

### Unlock Precious Tissue Samples

Singulator utilizes single-use cartridges to dissociate solid tissues into suspensions of single cells or nuclei.

The newly introduced NIC+ small sample cartridge is ideal for ultrasmall, precious samples of 1 - 20 mg. Its performance has been demonstrated for as small as 1mg of tissue for nuclei isolations.






- **Reproducible & Precise**
- **Faster than Manual Extractions**
- **Programmable & Customizable**



- **New RNase Inhibitor v2**  
Enhance the Quality and Reliability of Your Single-Nuclei Sequencing Experiments

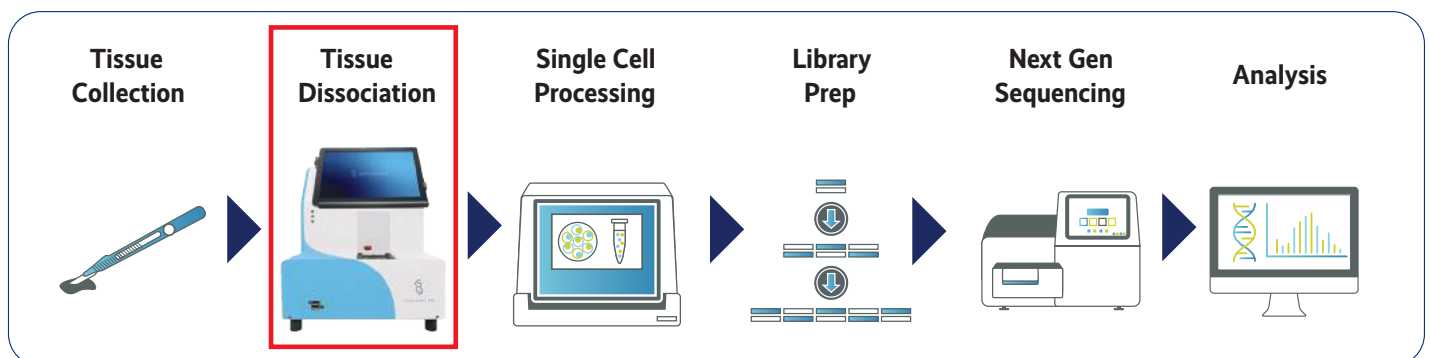


### The Singulator S200 and Singulator S200+

-  **Independent Bays**  
Independently addressable sample bays. Isolate cells or nuclei from either bay at any time.
-  **Rapid Results**  
Nuclei in ~7 minutes. 8 samples complete in ~30 minutes.
-  **Easy to Use**  
Get great results on day one. Robust protocols are pre-loaded and easily optimized for new tissue types.

### NOW SUPPORTING... with the new Singulator S200+

- **FFPE Tissue Samples; Isolate nuclei from FFPE slices, enables snRNA-Seq for FFPE samples**
- **Deparaffinization, rehydration, rinsing, and enzymatic digestion are done with FFPE designated cartridge, and nuclei isolation in a NIC+ cartridge**



# Sectioning is Time. We Cut the Time!

## Tissue Clearing for High-Resolution 3D Imaging

### Logos Biosystems' X-CLARITY™

The X-CLARITY System is an all-in-one, easy-to-use solution for electrophoretic tissue clearing. Its unique design accelerates the removal of lipids from tissues while preserving the structural integrity of the sample.

**Utilizing Electrophoretic Tissue Clearing (ETC), platinum-plated electrodes generate an electric field to accelerate the removal of lipids from tissues in a highly efficient manner.** A built-in temperature control system actively cools and heats buffer to maintain consistent temperatures during clearing. Buffer is constantly circulated to ensure consistent buffering capacity, temperature control, and elimination of tissue clearing by products.

#### ● Precise temperature control

- Active buffer cooling and heating capacity
- Sensitive and accurate temperature sensor

#### ● Compatible with multiple tissue types and sizes

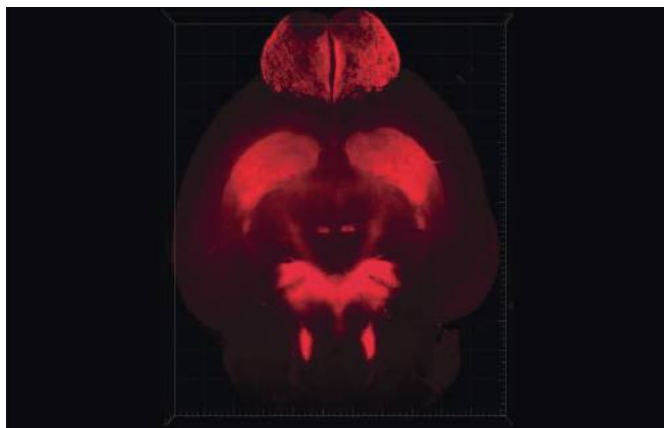
- Electrophoretic and passive clearing
- Holders of various sizes available

#### ● User-friendly setup

- Simple touchscreen interface
- Ready-to-use clearing solution

#### DeepLabel™ Antibody Staining Kit

The DeepLabel Antibody Staining Kit is a set of non-toxic, ready-to-use reagents optimized for use with clarified tissues. With DeepLabel, macromolecular probes can rapidly and efficiently penetrate thick, protein-dense tissues for site-specific binding at lower antibody concentrations. DeepLabel facilitates homogenous antibody



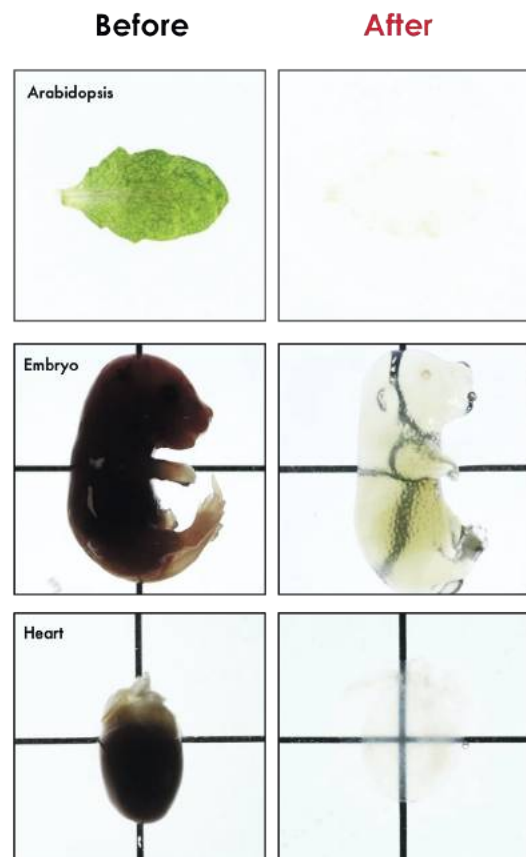
Whole adult mouse brain stained using DeepLabel with anti-TH (red).



staining with 2.6x greater signal-to-background ratio than conventional staining methods. Use DeepLabel for vibrant fluorescence imaging at subcellular resolution. Compatible with virtually all antibodies and all cleared tissues, DeepLabel enhances antibody diffusion into cleared tissues.

#### Accelerate your research with X-CLARITY!

#### X-CLARITY Tissue Clearing Samples





# Automated High Content Imaging

## Acquisition & Analysis for Drug Discovery & Cell Biology

### Logos Biosystems' CELENA® X

The CELENA® X High Content Imaging System is an integrated imaging system designed for rapid, high content image acquisition and analysis. Customizable imaging protocols, image-based and laser autofocus modules, and a motorized XYZ stage simplify well plate imaging and slide scanning. It is as flexible as powerful, with interchangeable objectives and LED filter cubes to accommodate a wide range of fixed and live cell imaging applications.

#### Applications:

- Cell-Based Assays
- Cell Counting
- Drug Discovery
- Histology
- Live Confluency Monitoring

**We are looking forward to your call in order to discuss your specific application!**

#### Key Features:

- Easy to customize for microfluidic devices
- Rapid multi-well plate imaging
- Powerful cell based assay software package
- Area scanning & image stitching
- Z-stacking & focus merging
- Time lapse live cell imaging
- Whole slide imaging



## UPCOMING EVENTS

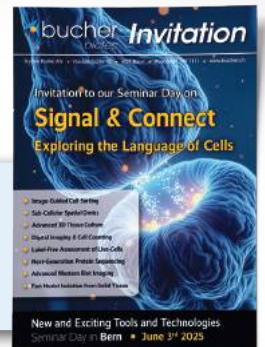
Please visit us at these events:

- **4th Swiss Cytometry Meeting 2025**  
ETH Zürich, 5. - 7. February 2025
- **Lausanne Omics Days 2025**  
Univ. Lausanne, Genopode, 6. / 7. February 2025
- **Bern Parasitology Meeting 2025**  
vonRoll Areal Bern, 11. February 2025
- **LS2 Annual Meeting 2025**  
Univ. Fribourg, 12. / 13. February 2025
- **Next-Gen Organ-on-Chips & Organoids Workshop**  
Haus der Wirtschaft, Pratteln, 13. / 14. February 2025
- **ISREC-SCCL Symposium 2025**  
Lausanne, 1. - 4. September 2025



## SAVE THE DATE

- **Bucher Biotec Seminar Day on Signal & Connect Exploring the Language of Cells**  
Bern, 3. June 2025



Join us for an inspiring day of discovery and innovation at our Signal & Connect Seminar Day. This event brings together leading experts and researchers to explore the fascinating world of cellular communication. **Participation is free of charge!**

Learning the language of cells will give us a deeper understanding of disease mechanisms and potential therapeutic targets.

Discover ground-breaking advancements, gain new insights into the mechanisms that drive cellular signaling, and connect with fellow professionals who share your passion for life sciences.

**Don't miss this opportunity to expand your knowledge and network with experts at the forefront of cellular research.**



# Next Generation Cell Counters

## The Champion's Way of Cell Counting. Because Time is Power!

### Logos Biosystems' Luna™ Automated Cell Counter Series



#### The popular LUNA™ Family of Automated Cell Counters

This highly advanced product family of automated cell counters is used by highly satisfied researchers in numerous labs worldwide.

#### Luna-III™ Features:

- Erythrosin-B & Trypan Blue
- Disposable or Reusable Slides
- Data Re-analysis
- Affordable
- Seamless Network Integration

The **new Luna-III™ Automated Cell Counter** builds on the success of its predecessor, the Luna-II™, with several key improvements that enhance its functionality and performance.

These advancements include **live cell detection for large or aggregated cells**, new features such as internal storage and **advanced autofocus**, the ability to reanalyze data and Find Cells feature, and outstanding linearity and low variability in cell concentration and viability measurements.



The LUNA-III™ Automated Cell Counter incorporates machine learning trained algorithms first introduced in our most advanced model, the LUNA-FX7™. Enhance your lab's productivity and precision with the Luna-III™.

**All our cell counters are compatible with the reusable slide for sustainability.**

The **LUNA-FX7** is our most powerful cell counter, with unmatched cell counting accuracy, a maximum counting volume of 5  $\mu$ L (10 times that of conventional cell counters), **all new optics**, dual fluorescence and brightfield illumination, a **fast and precise autofocus**, and **multichannel pipette-ready 8-channel slides** to count up to **eight samples simultaneously**.

To help monitor and optimize bioprocesses, the LUNA-FX7 has built-in quality control features and precision validation slides. 21 CFR Part 11-ready, the LUNA-FX7 improves the security and efficiency of your lab's workflow.

#### Unmatched cell counting accuracy

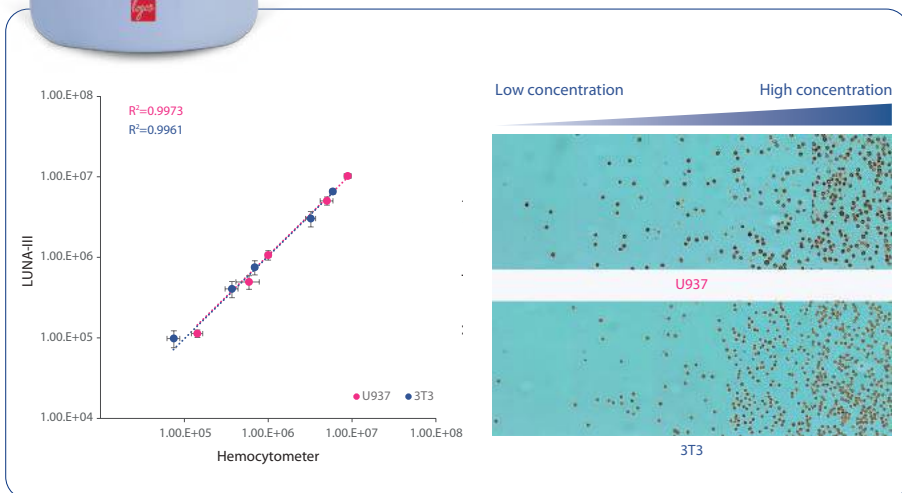
- Increased counting volume for the lowest CV per count
- More robust and sophisticated counting algorithms
- Customizable cell-detection protocols

#### Optimized for bioprocess production applications

- Quality control and validation software
- Range of standard validation slides

#### 21 CFR Part 11 ready

- User access and rights management
- Online data storage and control
- Encrypted electronic records



#### LUNA-FL™ Dual Fluorescence Cell Counting

The LUNA-FL inherited the proven performance of the LUNA Automated Cell Counter with the brightfield microscope optics and the powerful and accurate cell counter algorithm. The integrated dual fluorescence microscope optics of the LUNA-FL allows you to precisely stain live / dead cells and thereby exclude undesirable debris. Resulting in the most accurate cell counting experience ever!



# Rapid Single Bacteria Cell Quantification

Results in Minutes, Not Days

## Logos Biosystems' QUANTOM Tx™ Microbial Cell Counter

Although smaller and simpler than their eukaryotic counterparts, bacteria are an incredibly diverse group of organisms that come in multiple shapes, sizes, and arrangements. Colony counting is highly variable and unreliable, as it is only an estimate of the viable cells present. Even expensive flow cytometers and laser scanning cytometers register each particle, single or clustered, as a single event.

The QUANTOM Tx™ Microbial Cell Counter is an image-based, automated cell counter that can detect individual bacterial cells in mere minutes. Its novel bacteria-optimized cell detection software can count individual bacterial cells in even the tightest clusters.



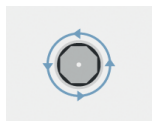
**Please contact us in order to discuss your specific cell counting requirements.**

### Innovative Counting Process Ensures Accurate Counts



#### Staining

QUANTOM™ Total Cell Staining Dye easily permeates both gram positive and gram negative bacteria to stain both live and dead cells. QUANTOM™ Viable Cell Staining Dye efficiently labels viable bacteria.



#### Immobilizing

Stained cells are mixed with our bacteria-optimized loading buffer, loaded into QUANTOM™ M50 Cell Counting Slides, and spun in the QUANTOM™ Centrifuge to immobilize and evenly distribute the cells throughout the counting chamber to ensure accurate cell counts.



#### Counting

The QUANTOM Tx™ captures up to 10 high-resolution images and counts the cells in each. The highly sophisticated software can distinguish individual cells in various arrangements such as tight clusters or in sequence to produce accurate and reliable total bacterial cell counts.

## Need a Training Refresher?

# Master Your Cell Counting with LUNA™!

Are you getting the most out of your LUNA™ cell counters? Our comprehensive training sessions are designed to help you achieve unmatched accuracy and efficiency. From basic setup to advanced counting techniques, our experts will guide you through every step. Gain confidence in your results and optimize your workflow. Book your personalized LUNA™ training session today and take your cell counting to new heights!

Contact our Application Scientists at [info@bucher.ch](mailto:info@bucher.ch)



**Vadim Saratov, Ph.D.**  
Application Scientist



**David Benz, Ph.D.**  
Sales & Application Scientist



# Cell Separation Made Simple!

Isolate your specific cells in a fast & gentle way

## The MARS™ Platform by Applied Cells

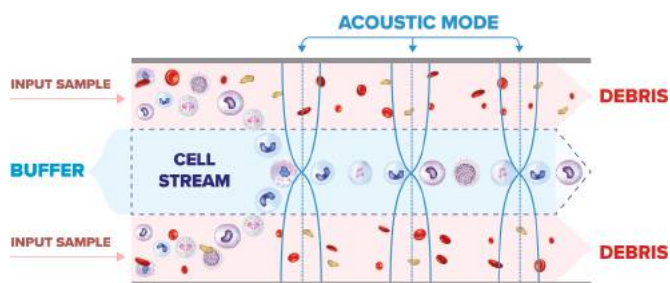
The MARS family of instruments provides a breakthrough solution to complete the workflow of cell separation and enrichment. Applied Cells' proprietary technology offers a unique advantage in the enrichment of target cells with high recovery, high purity and high reproducibility.

### MARS Acoustics

MARS active-microfluidics acoustics allow for label-free immune cells separation from lysed cell debris, dead cells, and other small particles. The acoustic force within MARS® CPC (Cell Processing Chip) separates particles based on differences in their physical parameters (size, etc.) with high speed. The CPC is tunable to preferably enrich desired cells. Isolated cells are ready for single-cell phenotypic and genomic analysis as well as expansion.

### MARS Magnetic Separation

MARS immuno-magnetic separation modules separate cells bound to magnetic beads from cells unbound to magnetic beads in flow channels, without the need for dedicated columns. No matrix means that the dead volume is reduced, and a minimal number of cells are trapped in the system, leading to unprecedented recovery.



### Plasma Cell Isolation

Uncover new insights in Multiple Myeloma research through efficient CD138+ cell isolation.

### Stem Cell Isolation

Transform the isolation of CD34+ hematopoietic stem cells (HSC), maximizing purity and recovery.

### Cell Therapy Development

Streamline cell development from small-scale optimization, through upscaling to cell manufacturing.

### Cell and Nuclei Enrichment

Effortlessly separate nuclei from complex samples with a gentle, single-step acoustic wash.

### The MARS experience offers:

- Broad range of samples
- Consistent and reproducible results
- High recovery AND high purity
- High cell viability
- Minimal hands-on sample preparation
- Preprogrammed assay protocols
- Low consumables cost, low reagent consumption



### MARS CS

Acoustic modules for sample washing and concentration combined with the magnetic module for positive or negative cell selection



### MARS BAR

Magnetic technology for positive or negative cell selection



### MARS SP

Acoustic technology for cell washing and cell concentration

# Who's Who at Bucher Biotec AG

Meet the Team!

**Challenge us for a detailed product evaluation!**

## Company Profile

Bucher Biotec AG is a privately held Swiss distributor company representing some of the most advanced US, European and Asian manufacturers of highly innovative life science research instrumentation, associated reagents and consumables.

Founded in 1978 by Paul and Anna Bucher the company management in 2003 changed to the next generation. Marc Bucher has taken over the lead of the company as CEO and Chairman. Anna and Paul Bucher remain members of the board.

We are extremely proud of our distinguished customer base in the pharmaceutical, biotechnology, agricultural, food and related industries, in all life science research oriented academic institutions, in numerous governmental, clinical and environmental labs and in all of the University hospitals.

Our highly competent, well educated team is focused on understanding our customer's needs in order to propose optimal solutions for demanding research tasks enabling the acceleration of scientific exploration.

## Company Mission

Since our inception we strive to provide a truly high standard in customer support, pre- and post-sales, applications support as well as a comprehensive technical service.



**Marc Bucher**  
CEO & Chairman



**Georg Kienzle, Ph.D.**  
Director Sales & Support



**Matthias Vogg, Ph.D.**  
Product Line Manager



**David Benz, Ph.D.**  
Sales & Application Scientist



**Vadim Saratov, Ph.D.**  
Application Scientist



**Daniel Seidenberg**  
Service Manager



**Dominik Pinck**  
Service Engineer



**Daniel Tanner**  
Manager Order Processing



**Marie-Josée Schoffit**  
Order Processing



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**Challenge us for a detailed product evaluation!**

# Visualize Live-Cell Function at Scale

## Studying Cell Biology, Label-free and Powered by Microchips

### Introducing the CytoTronics Pixel™ Systems

Pixel enables high-resolution, multiplexed, real-time assessment of live-cell characteristics, providing deeper understanding of how chemical or genetic perturbation affect cell function.

#### Multi-modal live cell monitoring

Contemporary tools offer a single readout modality and compromise between spatial resolution and throughput. The high-dimensional data, spatial images and longitudinal videos Pixel generates enables data collection at a scale that wasn't possible before on the same cell culture. Capture simultaneous multi-modal readouts for:

#### Applications:

- Cell proliferation and real-time viability
- Tissue barrier and cell-cell adhesion
- Motility and migration
- Cell substrate attachment
- Culture heterogeneity
- Cytotoxicity and cell death
- Cardiac electrophysiology
- Contractility
- Neural activity

#### A Breakthrough in Semiconductor-to-cell-biology Interface

At the core of the Pixel system is a proprietary microplate embedded with custom-designed semiconductor microchips at the base, providing thousands of measurement and stimulation electrodes in each well. The electrodes can **monitor cell viability, morphology, electrophysiology, metabolism**, and more while generating



electrical images of single-cell spatial resolution. The system is designed for ease of use by enabling plating of any cell type with a wide range of biological coatings.

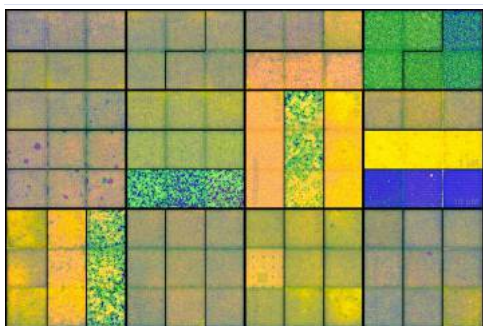
#### The Pixel™ System

Pixel is a system of plate and reader options designed to suit your application and utilizes secure cloud-based data processing for real-time monitoring of your experiments. Users can implement a Pixel Primo for low-throughput applications, a Pixel Octo for high-throughput, or run both in parallel to screen tens of thousands of wells simultaneously.

#### Multi-modal Insights

Pixel's semiconductor-based 96- and 384-well plates cater to diverse requirements in cell biology applications by enabling **impedance based, electrochemical, and electrophysiological mapping of live cells**, with multiparametric real-time readouts at single cell resolution.

Users of a Pixel system gain immediate insights for endothelial and epithelial cells, cancer cell biology, mechanism of action/toxicology, stem cell biology, cardiac function, and neuron function, with more to come.



**Multiparametric data at high throughput:** A 96-well plate with MDCK cells was treated with a variety of compounds. RGB channels represent orthogonal measurements. Colors illustrate the diversity of observed compound responses at 48 hours post treatment.



#### Pixel has won an R&D 100 award!

It's an honor for CytoTronics' novel semiconductor-to-live-cell-biology interface to be recognized as a breakthrough product by the global science and innovation community. Congratulations to the CytoTronics' team of go-getters and inspired thinkers for all their dedication to changing the way the world looks at cell biology.