The **HyperCyt System** consists of two parts:

**HyperCyt® Autosampler**
Sample handling system using a unique, patented technology for transferring cells or beads in suspension from microplates into a flow cytometer. IntelliCyt provides automation interface products so you can add a robotic plate loader to maximize the power of high throughput cytometry.

**HyperView™ Software**
Powerful, easy-to-use software that allows you to design and rapidly analyze results of flow cytometry screening experiments. Whatever flow cytometer you use, HyperView makes it simple to visualize results at plate level.

Get **more and better answers** from small and precious specimens.

Perform **larger screens and bigger experiments** within your research budget.

Get **better statistics with more replicates** without spending more time or money.

**Increase productivity:** run a 96-well microplate in as little as 3 minutes, or a 384-well microplate in just 12 minutes.

**Streamline data analysis** with HyperView plate-level statistics and heat maps.

**Utilize your existing flow cytometer** and maximize valuable instrument time.
**The HyperCyt® System**

hardware and software to put your flow cytometer into **hyperdrive**

**Automation friendly**

HyperCyt can be integrated with robotic plate loaders through optional automation interface software.

**Rapid sample introduction**

HyperCyt can sample up to 40 wells per minute. That means that a 96-well plate can be analyzed in as little as 3 minutes, a 384-well plate in 12 minutes.

**Very small to very large sample volumes**

There is no dead volume in the HyperCyt process. This allows you to utilize scarce specimens and get more information than ever before possible. The actual sample uptake can be as little as 1µl, so that kinetic studies on individual wells are possible. If larger samples are required, HyperCyt can sample for as long as you need.

**Utilize standard microplates**

You can use standard 96- or 384-well microplates. Even 96-well formatted bullet tubes can be utilized for large sample requirements.

**Sampling**

HyperCyt control software allows you to select the order in which to sample the plate. Alternatively, you can also select individual wells to sample from the plate.

**Mixing**

HyperCyt incorporates an optional on-board orbital plate shaker that you can program for your application. You can control the speed and time and frequency of mixing throughout the sampling process.

**Rinsing**

HyperCyt gives you the option to program rinse steps in order to eliminate carryover whenever that is an issue. Four rinse stations can be used for rinsing or cleaning. Published results have indicated that carryover is generally 1-2% with no interwell washes.*

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HyperCyt® Autosampler
use your existing flow cytometer

HyperView™ Software
powerful design and analysis tool

Design your experiment
HyperView was designed to be as easy to use as possible. Flow cytometry can be complicated, so we have created a tool that makes it simple to create an experimental design that will result in easy-to-visualize screening results. Just click and drag to identify positive and negative controls or specimens. You can also create and analyze experiments offline with HyperView.

Run your experiment
An experiment can contain one plate loaded onto the HyperCyt by hand or multiple plates that can be loaded by a robotic plate loader.

Analyze your data
You can set population gates and compensation on all of the data from the entire plate at one time. An automated well identification algorithm segments the data into individual wells.

View or export your statistics
HyperView generates a spreadsheet of all user-selected parameters and populations, and, with a single click, you can export your data to Excel.

Visualize your results
With HyperView, you can analyze screening data and achieve critical, decision-making results in minutes. Any measurement from any population can be displayed in a heatmap that identifies the hits or trends in the data at a glance.

What is High-throughput Flow Cytometry?
Modern flow cytometers are capable of analyzing cells at rates of tens of thousands of cells per second and make many sensitive measurements per cell. There is an abundance of information that is acquired very rapidly on a single cell basis.

To achieve high throughput on a multiple sample or microplate level, samples must be introduced to the flow cytometer rapidly and the resulting data managed efficiently.

HyperCyt is the first system that addresses both the front end sample handling and the back end data analysis for flow cytometers. Integrating HyperCyt with your flow cytometer will give you the speed you need to accelerate your research.

**HyperCyt integration is available for the Accuri C6®, BD LSRII and LSR Fortessa™ and Beckman Coulter CyAn ADP and Gallios.**
**HyperCyt® Applications**

**Cell-based Compound Library Screening**
Perform primary screens of small molecule compounds against many types of cells, beads, and microorganisms. Hits are easily identified with HyperView software.

**FlowTox™ Assays**
HyperView software allows you to multiplex cytotoxicity assays such as this 7AAD assay. Multiple cell types can be identified by surface markers or dyes and co-incubated with compounds.

**Other applications for HyperCyt high-throughput flow cytometry include:**

- Antibody screening
- Functional genomics
- Multiplexed bead-based ELISA