

Experience **Xtremes.**

MoFlo™ XDP Cell Sorter

General Chemistry  
Lab Automation  
Information Systems  
Molecular Diagnostics  
Immunodiagnosics  
Centrifugation  
Disease Management  
Hematology  
Hemostasis  
**Flow Cytometry**  
Primary Care



### **Xtreme Performance**

Accelerate cell sorting research beyond past limitations with the first true 32-bit high-resolution 5-decade multi-channel digital system in the history of flow cytometry.

### **Xtreme Applications**

Increase productivity through rapid response capabilities to tackle the most demanding applications with ease.

### **Xtreme Functionality**

At the heart of MoFlo XDP is integrated functionality that fits the way you work. It's built for speed with immediate output in mind.

### **Xtreme Reliability**

MoFlo XDP combines historic reliability with cutting edge engineering and proven performance.

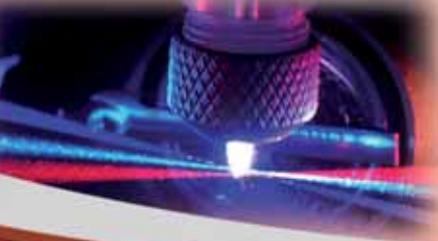
### **Xtreme Results**

Powerful and responsive, MoFlo XDP allows customized, accurate control of single cell deposition for advanced research possibilities.

### **Xtreme Support**

Across the globe, a network of technical experts is available to help with all your system support needs. Wherever you are, our world-class customer service and support is dedicated to making sure your sorter functions at peak efficiency throughout its lifetime.

# MoFlo XDP Cell Sorter - Setting the Standard.



## XDP Electronics

Maximize yield in all sort modes.

- ✓ Zero dead time
- ✓ >100,000 events per second
- ✓ Digital triggering on any parameter
- ✓ Digital pulse processing
- ✓ True dynamic range of 5 decades
- ✓ Unmatched linearity



## Summit Software Version 5.0

Determine regions with full parameter resolution.

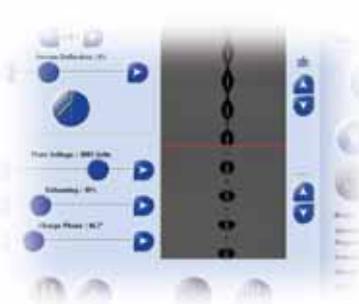
- ✓ Powerful data handling
- ✓ High viability and yield
- ✓ >1 billion event listmode files
- ✓ Auto-compensation
- ✓ Workspace concept
- ✓ Standard and custom plate sort capability



## IntelliSort

Assure purity and yield.

- ✓ Cruise control sorting
- ✓ Walk away operation
- ✓ Pressure and temperature monitoring
- ✓ Improved image quality



## XDP aXcess Control Panel

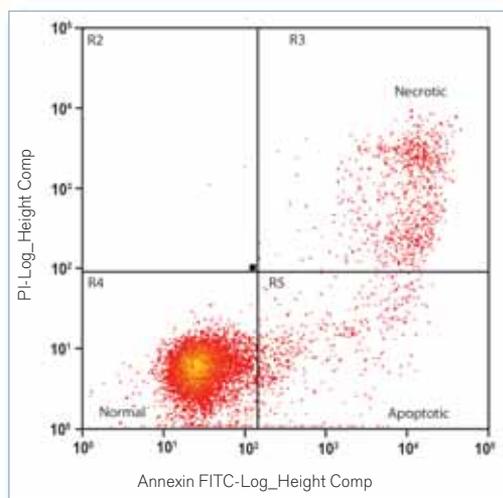
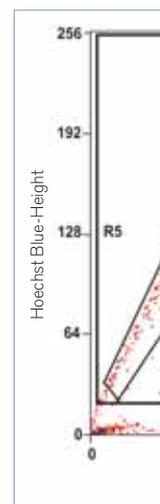
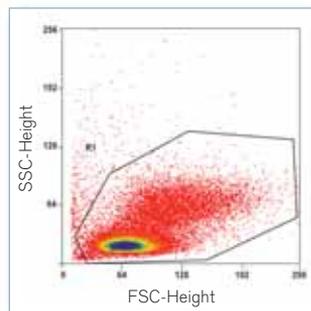
Access intuitive set up and sorting refinements.

- ✓ Individual stream deflection control
- ✓ Simple coarse and fine alignment
- ✓ Droplet control
- ✓ Stream configuration/control
- ✓ CyCLONE calibration
- ✓ Sort statistics

## SP Cells

Identification of side population cells (SP) based on the efflux of Hoechst 33342 and other rare cell populations can be studied using the MoFlo XDP. Excited by a UV laser, Hoechst 33342 blue and red fluorescence is captured and results in a small tail trailing off the main population. This side population of cells is quite rare and can easily be separated at high speeds on the MoFlo XDP thus decreasing the sorting time required.

Data courtesy of Susan Majka, PhD., University of Colorado Health Science Center.



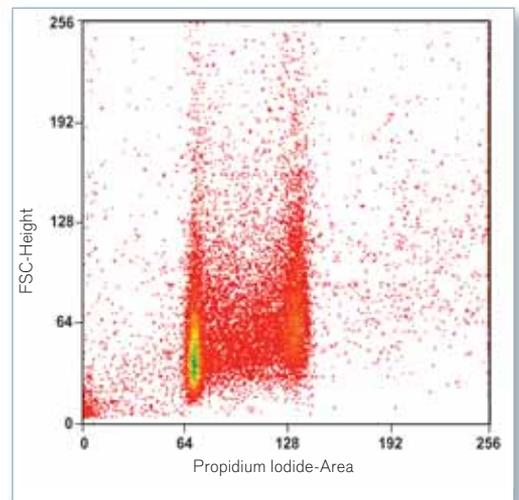
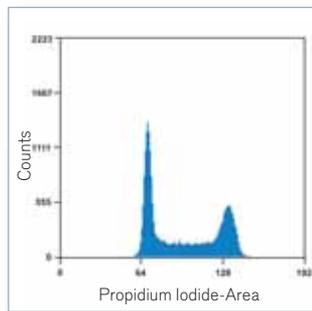
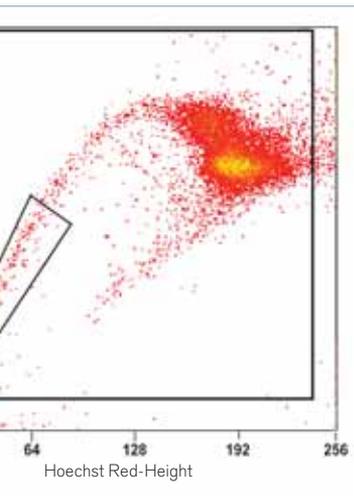
## Apoptosis

FITC conjugated propidium iodide (PI) can be used to evaluate cell membrane changes as membrane changes occur during the apoptosis process. This is used to evaluate cells using the MoFlo XDP.

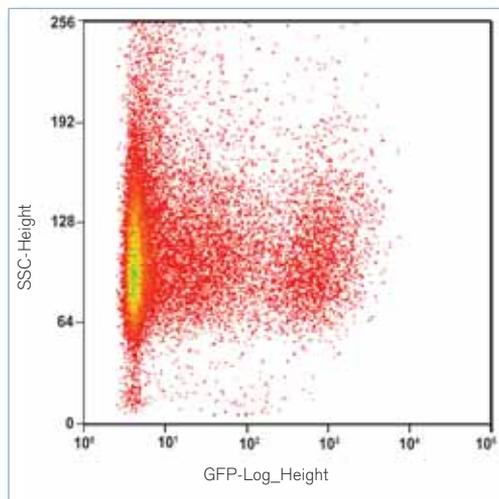
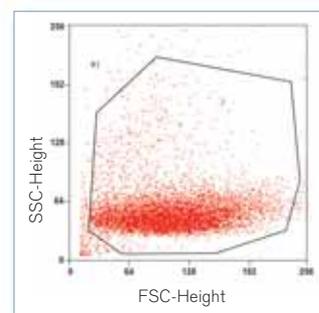
### Cell Cycle

Propidium iodide (PI) can be used to identify DNA content of cells that have been permeabilized to accept the dye where it intercalates into the cellular DNA. Therefore the PI signal intensity is directly proportional to the amount of DNA in the cell. The majority of the cells in the histograms shown are in G<sub>0</sub>/G<sub>1</sub> phase with 1x DNA content (left peak). Cells in G<sub>2</sub>/M phase appear in the peak to the right and contain 2x DNA. Cells falling between the peaks are in S phase and actively replicating the DNA.

Data courtesy of Lynne Bemis, PhD., University of Colorado Health Science Center.

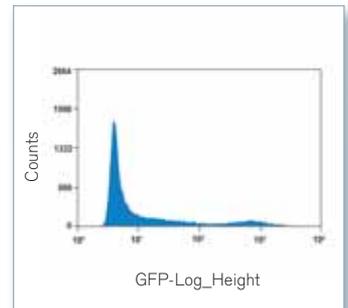


ated Annexin V and propidium  
can be used to identify cell  
changes associated with apoptosis  
e integrity degrades during this  
s staining combination was used to  
s for apoptotic activity using the



### GFP

Green Fluorescent Protein (GFP) is the most common fluorescent protein and is often used to study protein localization or protein-protein interaction. It is a naturally occurring bioluminescence complex found in the *Aequorea victoria* jellyfish. When isolated from the jellyfish and purified, GFP can be excited by a 488nm laser line with an emission around 510nm. The data collected on the MoFlo XDP shows GFP expression following transfection.



## MoFlo XDP Specifications

Analysis Rate	100,000 eps
Sort Rate	70,000 eps
Sensitivity	< 150 MESF FITC, <100 MESF PE
Drop Drive Frequency	200 kHz
Optical Parameters	2 scatter and up to 12 fluorescence
Purity	> 99% at all speed
Yield	Poisson 'time of arrival' statistics for 32 parameter + compensation
Plate Deposition	6- 1536 wells plus custom configurations
Sort Gates	Up to 32
Analysis Gates	Unlimited
Excitation Lines	Up to 3
Laser Options	Solid State: 488 nm, 200mW OPSP; 635 nm, 25 mW Diode; 405 nm, 25 mW Radius; 355 nm, 100mW Water-cooled lasers: I90, Krypton series
Filter Options	Standard filters sets and Hoechst, DAPI, INDO, APC/APC- Cy7
Data Resolution	Up to 5 decades
Nozzle Sizes	8 ranging from 50 µm to 200 µm
Particle Resolution	< 0.2 µm to 25 µm
Compensation	12 x 12 intra-laser compensation
Available Signal	Log, height, area, width, log area for each parameter
System Pressure	4- 100 PSI
Software	Summit Software version 5.0, Microsoft® Office Professional Edition 2003
Operating System	Microsoft* Windows* XP Professional

For research use only.  
Not to be used in diagnostic procedures.  
Class I laser product.

### Global Service and Support

Optimize research.

- ✓ Application specialists
- ✓ Field service engineers
- ✓ Training programs
- ✓ Discussion board/user groups



### Partner with BeckmanCoulter

Experience exceptional flow cytometry performance.

- ✓ Industry leader
- ✓ Worldwide presence
- ✓ Innovative solutions
- ✓ Robust and proven platforms

\* Microsoft and Windows are registered trademarks of Microsoft Corporation.

Australia, Gladesville (61) 2 9844-6000 Canada, Mississauga (1) 905 819 1234 China, Beijing (86) 10 6515 6028  
Czech Republic, Prague (420) 272 01 73 32 Eastern Europe, Middle East, North Africa, South West Asia: Switzerland, Nyon (41) 22 365 3707  
France, Villepinte (33) 1 49 90 90 00 Germany, Krefeld (49) 2151 33 35 Hong Kong (852) 2814 7431  
India, Mumbai (91) 22 3080 5101 Italy, Cassina de' Pecchi, Milan (39) 02 953921 Japan, Tokyo (81) 3 5530 8500 Korea, Seoul (82) 2 404 2146  
Latin America (1) (305) 380 4709 Mexico, Mexico City (001) 52 55 9183 2800 Netherlands, Mijdrecht (31) 297 230630 Puerto Rico (787) 747 3335  
Singapore (65) 6339 3633 South Africa/Sub-Saharan Africa, Johannesburg (27) 11 805 2014/5 Spain, Madrid (34) 91 3836080  
Sweden, Bromma (46) 8 564 85 900 Switzerland, Nyon (41) 0800 850 810 Taiwan, Taipei (886) 2 2378 3456 Turkey, Istanbul (90) 216 309 1900 UK,  
High Wycombe (44) 01494 441181 USA, Fullerton, CA (1) 800 742 2345

