



Cytocentric Cell X™

Automation Optimized for Cells in Xvivo System™



Cell X Device was jointly developed by Parker Hannifin & Cleveland Clinic. Cell X™ is their trademark.

- **Aseptic Cell Robotics**
- **Optimized O₂ CO₂ RH and Temp Before, During, and After Robot**
- **Negative Effects of Machine on Cells Neutralized**
- **Same High Quality Options for Entire Work Flow**

Cytocentric - First & Only Total Quality Approach to Cell Incubation & Processing

Cell biologists are using the amazing **Cell X™** to pick the most valuable cells directly out of culture. Embedded in a Cytocentric™ ecosystem, now the maximum value of these rare cells can be realized.

First, the robot now operates aseptically. Cells are completely protected from people and the room outside. In a moldy basement or a pristine cleanroom, the Cytocentric **Cell X** system eliminates risk of loss due to contamination. Additional modules can keep upstream and downstream workflow aseptic as well.

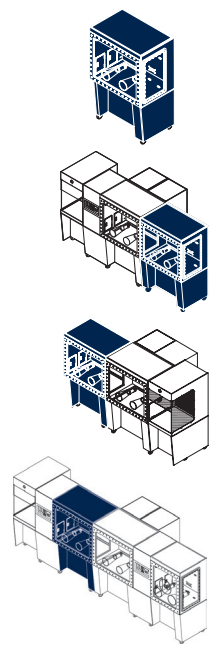
Second, now it operates in an atmosphere optimized for cells. All critical cell parameters (temperature, humidity, CO₂, and O₂) are controlled at optimum levels during the robotic pick process. Additional modules can keep upstream and downstream steps optimized as well, before and after the robot.

Third, all the typical negative side effect of machines (heat, particles, vibration, etc.) are neutralized, further assuring healthy cells coming out of the **Cell X**. Other machines upstream and downstream can be neutralized as well.

Fourth, the Cytocentric ecosystem isolates and contains the entire cell workflow, providing an unprecedented new layer of biosafety. Working with diseased patients cells or cells genetically engineered with worrisome vectors or viruses is now not so worrisome.

Finally, in the regulated industries, the **Cell X** is now ready for immediate use in all GLP and GMP applications.

In fact, Cytocentric is the perfect setting for all cell robots, cell automation, cell analytic machines, and cell processing machines, just like the new **Cell X**. The **Xvivo System** is a modular barrier isolator designed for cells. It can accommodate any cell process or workflow. It can accommodate any and all cell machines... the best way to make machines best for cells.



A new Cytocentric **Xvivo System** module was designed specifically for the size and weight of **Cell X**. Typical machine side effects were neutralized. Aseptic conditioning, critical cell process parameter controls, and ergonomic access points were added.

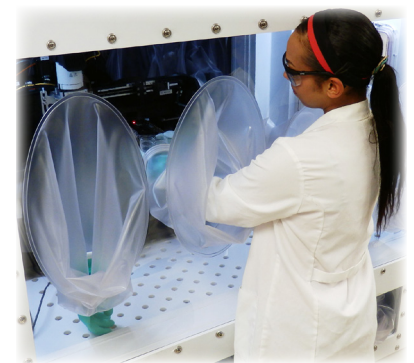
Cytocentric accommodates cell workflow upstream of robot. Optional compatible additional modules extend aseptic, cell optimized, machine neutral, biosafety *before* cells get to the robot too.

Cytocentric accommodates cell workflow downstream of robot. Optional compatible additional modules can extend aseptic, cell optimized, machine neutral, biosafety *after* cells leave the robot too.

Cytocentric recognizes any specific automated step or machine is only part of the entire process. Modular **Xvivo System** accommodates any process, and readily adapts to any change in process.



Cytocentric setting makes every machine better for cells. Data batch records prove it.



Ergonomic access to all sides of the machine and all cell processing.

Xvivo System and Cytocentric are trademarks of BioSpherix, Ltd.