



Organ Recovery_{systems}

FOR IMMEDIATE RELEASE:

Contact:

Luanne Rodgers
Organ Recovery Systems
847-824-2600
lrogers@organ-recovery.com

Chris Stamm/Brian Bogie
Schwartz Communications, Inc.
781-684-0770
ors@schwartz-pr.com

**NATIONAL INSTITUTES OF HEALTH AWARDS ORGAN RECOVERY SYSTEMS
TWO GRANTS TO DEVELOP CRYOPRESERVATION METHODS
FOR DIABETES AND BONE MARROW DISEASE TREATMENTS**

*Latest Government Grants Raise Organ Recovery Systems Total Federal Funding
to more than \$6.4 Million*

CHICAGO, Ill.—November 4, 2002—Organ Recovery Systems, a developer of services and technologies to improve the quality and quantity of transplantable organs, tissues and cells, announced today that it received two Small Business Innovation Research (SBIR) grants from the National Institutes of Health (NIH) totaling over \$200,000. One grant will be used to develop a method for cryopreserving encapsulated, glucose-responsive, insulin-secreting constructs that could be used to treat diabetes. The other NIH grant will be used to develop a cryopreservation method for hemopoietic stem cell transplantation that could be used to treat bone marrow diseases.

“For years, Organ Recovery Systems has pioneered cryopreservation and successfully applied these new methods to improving the storage of tissues and cells for transplantation,” said Organ Recovery Systems CEO David Kravitz. “Organ Recovery Systems will use this funding to research revolutionary cryopreservation methods that may contribute greatly to the treatment of both diabetes and diseases of the bone marrow. Since we received our first NIH grant in 1998, Organ Recovery Systems has used federal funding to make groundbreaking developments in cell and tissue preservation and we are proud to continue that research tradition.”

Implantation of encapsulated, glucose-responsive, insulin secreting constructs is a promising method for treating diabetes. While it is thought to be more effective, less invasive and potentially less costly than conventional insulin injections, a method of storing constructs will be needed to build supplies of manufactured constructs, to enable quality assurance of constructs and to enable the delivery of constructs to the operating room. Organ Recovery Systems will use funds from one of these NIH grants to study the vitrification of constructs—a proprietary method

of stabilizing biological systems in an ice-free, glassy state without the inherent problems associated with water crystallization that often damages cells and tissue in traditional cryopreservation. Organ Recovery Systems will develop the process for vitrification of the constructs while scientists at the Georgia Institute of Technology will develop the insulin-secreting constructs used in the study. In addition, scientists from Emory University will use nuclear magnetic resonance (NMR) to determine the penetration rates of the cryoprotectants.

Diseases of the bone marrow that may be treated with cryopreserved hemopoietic stem cell preservation include leukemias, lymphomas and aplastic anemia. The second NIH grant, in collaboration with the Department of Pharmaceutical Sciences at the University of Colorado Health Sciences Center, will be used to develop a novel cryopreservation method in which cells are permeabilized using a switchable, bacteria-derived, pore-forming protein. The resulting pores, which self assemble on cell membranes, can be opened and closed at will by chemical manipulation. Cryoprotectants that are usually considered too large to penetrate cell membranes can be introduced into cells when the pores are open and the cells subsequently preserved for storage. In addition, this technology may also be applied to provide long-term storage of a variety of cells including mature blood cells, mesenchymal stem cells, cell-based biosensors and some medical interventions involving gene therapy.

About Organ Recovery Systems

Organ Recovery Systems is a privately held company developing technologies and services to improve the quality and quantity of transplantable organs, tissues and cells. The company is comprised of three business units: the Perfusion Services Group that helps leading transplant centers and organ procurement organizations (OPO) by employing proprietary perfusion techniques for evaluation and therapy of traditional, expanded criteria and nonheartbeating donor kidneys prior to transplant; the Medical Devices Group that develops perfusion-based devices to improve the recovery, assessment, storage and transport of organs for transplantation; and the Charleston Research Center that develops new technology for cell and tissue preservation as well as basic and applied research to support the company's platform of organ therapy products. For more about Organ Recovery Systems visit <http://www.organ-recovery.com>.

###