



Organ Recovery_{systems}

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ORGAN RECOVERY SYSTEMS RECEIVES US PATENT FOR NEW TISSUE VITRIFICATION PROCESS

*Increases Storage Time of Tissues Including Cartilage, Heart Valves & Medical Biopsies;
Reduces Ice Crystal Damage Common in Traditional Cryopreservation Methods*

CHICAGO, Ill.—June 15, 2004—Organ Recovery Systems, a developer of technologies designed to improve the quality and quantity of transplantable organs, tissues and cells, announced today that it received US Patent #6,740,484 for its Organ Recovery Systems Vitrification Process. This is the first ice-free technology that increases storage times for complex tissue matter available for licensure to tissue banks and biotechnology labs.

The Organ Recovery Systems Vitrification Process dramatically improves the storage and delivery of tissues such as skin, cartilage, heart valves, and medical biopsies. Unlike traditional cryopreservation methods, the Organ Recovery Systems Vitrification Process reduces the formation of harmful ice crystals, preserving these complex tissues in a glass-like state. Until now, commercial vitrification has only been used to preserve single cells. For the first time, this new process enables researchers and clinicians to bank much-needed tissues such as cartilage used to restore joints damaged by sports injuries or degenerative arthritis, heart valves and blood vessels used in cardiac procedures, or medical biopsies.

The Organ Recovery Systems Vitrification Process allows for the storage of living tissue products by adjusting solution formulations and heat transfer rates of complex tissues, preventing the growth of damaging ice crystals.

“This is very exciting, because now we can preserve tissues more safely and effectively for long periods of time. In the future, this process can be used for the storage and transport of important manmade constructs such as heart valves and blood vessels,” said Kelvin Brockbank, Ph.D., Organ Recovery Systems’ senior vice president of scientific affairs.

Organ Recovery Systems developed the vitrification process in its Charleston Research Center under grants from the National Institutes of Health and the National Institute of Standards & Technology.

“There is a tremendous discrepancy between the supply of vital organs from donors and the number of patients in need. While some engineered tissues such as skin are available today, there is a lack of a long-term storage technique that extends the shelf life of complex, tissue-engineered tissues, that can be consistently replicated,” said Robert M. Nerem, Ph.D., Director of the Parker H. Petit Institute for Bioengineering and Bioscience at the Georgia Institute of Technology and also Director of the Georgia Tech/Emory Center for the Engineering of Living Tissues, a National Science Foundation-funded Engineering Research Center. “Organ Recovery Systems has created a new process that today can be widely applied to complex, tissue-engineered tissues in their translation from bench top science to bed side medicine.”

Dr. Barbara Boyan, Price Gilbert Jr. Chair in Tissue Engineering at Georgia Tech continued, “Vitrification ensures tissues and cells are maintained as perfectly as possible and can be thawed without changing their properties. This new process will play an instrumental role in advancing the state of tissue engineering.”

“The market potential for applying our new technology is significant. Human heart valves or tissue-engineered constructs are predicted to reach 65,000 procedures a year and the market for blood vessels is much larger, with 350,000 procedures predicted each year,” said Organ Recovery Systems President and Chief Executive Officer David Kravitz. “We are encouraged that our preservation technology can potentially help hundreds of thousands of patients around the globe by increasing the pool of viable tissue and cells for transplant.”

About Organ Recovery Systems

Organ Recovery Systems is a privately held company developing technologies and services to improve the quality and quantity of organs, tissues, and cells for transplantation. The company’s flagship medical device, the FDA-cleared LifePort™ Kidney Transporter, is a mobile perfusion device that establishes a continuum of organ care spanning the critical time between recovery and transplantation. LifePort devices for the heart, liver and pancreas are in development, and the company is creating methods to improve the preservation and assessment of donated pancreas for improved yield and quality of Islet cells for transplant. The LifePort was named one of the top 100 breakthrough technologies by *Popular Science* in its 2003 Best of What’s New Awards.

Organ Recovery Systems is organized into three operating groups: the Perfusion Services Group helps transplant centers and organ procurement organizations (OPOs) by employing proprietary perfusion techniques for evaluation and therapy of traditional, expanded criteria, and nonheartbeating donor kidneys prior to transplant; the Medical Devices Group develops perfusion-based devices to improve the preservation, assessment, and treatment of organs for transplantation; and the Charleston Research Center develops new technologies for cell and tissue preservation and evaluation while conducting 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>.