



FOR IMMEDIATE RELEASE

Contact: Lauren Daniels
(210) 857-2521
laurend@proterraadvertising.com

TISSUE ENGINEERING SHOWS PROMISE TO REVOLUTIONIZE TRANSPLANT MEDICINE

Researchers at ISHLT Annual Meeting Discuss Future of Generating New Organs

San Diego, Calif. April 13, 2011 – The engineering of replacement tissue shows promise to dramatically impact the treatment of patients with end stage heart failure. While the field is still in early stages, researchers will discuss the potential for a revolutionary change in medicine at the International Society for Heart and Lung Transplantation Annual Meeting and Scientific Sessions this week.

“We have opened the door to generating new complex organs,” said Doris A. Taylor, PhD, University of Minnesota.

Dr. Taylor will moderate Thursday’s Mid-Day Symposium 3: *Immunological Aspects of Engineered Heart Tissue and Cellular Replacement Therapies in Heart Failure*.

According to Dr. Taylor, creating bioartificial organs requires cells, a framework for the cells and a way to feed these cells. Building any complex organ, a heart or lung for instance, requires a complex interplay between cells, their microenvironments and the vascular network, which ultimately impacts cell differentiation.

Beyond transplantation, tissue engineering holds potential for building pieces of organs and tissues for use in repair of these organs.

On Friday, Dr. Taylor will discuss her own research during the Mid-Day Symposium 5: *Future Therapies for End-Stage Thoracic Organ Failure*. Dr. Taylor’s discussion: *Is There a Future for Engineered Heart and Lung*, will explore how matrix provides an architecturally correct 3-D microenvironment for developing cells and the biologic structural cues that drive cell behavior. She will discuss the impact of matrix on stem or progenitor cell alignment, differentiation, function and physiology, as well as its use as an *in vitro* test bed to evaluate stem cell repair.

- more -



“Engineering solutions to disease is no longer science fiction. Tissue engineering has the potential to revolutionize how humans think of health and disease,” said Dr. Taylor.

Dr. Taylor noted that tracheas and bladders from decellularized matrix are already in clinical study. As the field advances, progressively more complex organs will be transplanted.

“Our hope is that this technology will make end stage heart and lung disease a problem of the past. We are working towards generating autologous organs and reducing the burden of organ rejection,” Dr. Taylor continued.

About ISHLT

The International Society for Heart and Lung Transplantation (ISHLT) is a not-for-profit organization dedicated to the advancement of the science and treatment of end-stage heart and lung diseases. Established in 1981, the Society now includes more than 2,200 members from 45-plus countries, representing a variety of disciplines involved in the management and treatment of end-stage heart and lung disease.

ISHLT maintains two vital databases. The International Heart and Lung Transplant Registry is a one-of-a-kind registry that has been collecting data since 1983 from 223 hospitals from 18 countries. The ISHLT Mechanical Circulatory Support Device (MCSD) database has been collecting data since 2002 with the aim of identifying patient populations who may benefit from MCSD implantation; generating predictive models for outcomes; and assessing the mechanical and biological reliability of current and future devices. In Fall 2006, ISHLT released the first international guidelines for heart failure patient management. For more information, visit www.isHLT.org.

###