Quest Diagnostics Launches First Molecular Test for Kidney Organ Transplant Rejection

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Based on exclusive biomarker licenses with Beth Israel Deaconess Medical Center and Weill Cornell Medical College

MADISON, N.J., March 15, 2012 /PRNewswire/ -- Quest Diagnostics (NYSE: DGX), the world's leading provider of diagnostic testing, information and services, today announced the availability of the industry's first molecular blood test for identifying renal (kidney) organ-transplant rejection. The Renal Transplant Monitoring laboratory-developed test is designed to help physicians detect kidney failure weeks before conventional tests or clinical symptoms signify damage. The test may potentially improve patient care for kidney transplant patients while helping to lower sizeable healthcare costs associated with renal transplant failure.

The new test is based on the RNA genetic markers forkhead box P3 (FoxP3), granzyme B (GZMB), and perforin (PRF1) licensed exclusively from Boston-based Beth Israel Deaconess Medical Center (BIDMC), a teaching hospital of Harvard Medical School, and New York City-based Weill Cornell Medical College, the medical school of Cornell University, among other markers. Quest Diagnostics has also formed research and development collaboration agreements in the area of renal transplantation with BIDMC and Weill Cornell Medical College.

"Molecular diagnostics to noninvasively detect and predict renal-transplant rejection and monitor the efficacy and safety of pharmaceutical drug therapy and treatment withdrawal have the potential to significantly improve treatment and outcomes for renal transplant patients," said Terry Strom, M.D., professor of medicine, Harvard Medical School, and co-director, The Transplant Institute at BIDMC. "The first molecular test for this purpose has opened the window to new opportunities for personalized and more effective management of renal graft patients."

Dr. Strom and Manikkam Suthanthiran, M.D., professor of medicine, surgery and biochemistry, chairman of the Department of Transplantation Medicine, and chief of Nephrology and Hypertension, Weill Cornell Medical College, have published research demonstrating that certain biomarkers, including FoxP3, included in the Quest Diagnostics test are useful in detecting acute cellular rejection of renal transplants.

Standard post-transplant monitoring involves lab testing of serum creatinine, a marker of renal function, and renal biopsy, a procedure which can cause bleeding and graft injury or loss. Studies published by the New England Journal of Medicine, Journal of Transplantation and other peer-reviewed journals demonstrate that blood level elevations of biomarkers in the Quest Diagnostics' test are associated with renal transplant rejection and often occur before a rise in blood levels of serum creatinine. Earlier detection of transplant rejection may spur interventions that help to improve the likelihood of graft survival.

"Organ transplant failure not only affects patient outcomes and quality of life, it also drives up healthcare costs," said Stanley J. Naides, M.D., medical director, Immunology, Quest Diagnostics. "Quest Diagnostics' new renal monitoring test is an important medical innovation because it has the potential to improve patients' lives while also helping to reduce the significant expense of failed kidney transplants."

The median annual Medicare cost for a beneficiary whose kidney transplant failed was \$50,938 -- 500 percent more than the median annual Medicare cost for a beneficiary with a functioning transplant, at \$8,550, according to a 2007 report by the U.S. Government Accountability Office.

The kidney is the most commonly transplanted organ. The number of kidney transplants reached nearly 17,000 in 2009 in the United States. Approximately 70% of kidney transplants from a deceased donor, the most common donor type, fail within five years, according to the 2010 annual report of the U.S. Organ Procurement and Transplantation Network and the Scientific Registry of Transplant Recipients.

Quest Diagnostics is a leader in organ transplant testing services. The company provides testing services for all stages of organ transplantation, from pre-transplant donor-patient matching by Human Leukocyte Antigens (HLA) status to post-surgical organ and therapeutic monitoring and infectious disease testing. In addition, the company's AmeriPath business provides a full array of anatomic pathology diagnostic tools, including light microscopy and advanced immunofluorescent and ultrastructural analysis.

About Quest Diagnostics

Quest Diagnostics is the world's leading provider of diagnostic testing, information and services that patients and doctors need to make better healthcare decisions. The company offers the broadest access to diagnostic testing services through its network of laboratories and patient service centers, and provides interpretive consultation through its extensive medical and scientific staff. Quest Diagnostics is a pioneer in developing innovative diagnostic tests and advanced healthcare information technology solutions that help improve patient care. Additional company information is available at QuestDiagnostics.com. Follow us at Facebook.com/QuestDiagnostics and Twitter.com/QuestDX.

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