Quest Diagnostics to Present Genomic Studies Related to New Testing Techniques for Leukemia and Prostate Cancer at 2009 ASCO Meeting

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MADISON, N.J., May 28 /PRNewswire-FirstCall/ -- Quest Diagnostics scientists will present results of three studies revealing the effect of genomic abnormalities on the diagnosis and treatment of chronic myeloid leukemia (CML) and prostate cancer during the 45th Annual Meeting of the American Society of Clinical Oncology (ASCO), scheduled for May 29 through June 2 in Orlando, FL. Quest Diagnostics Incorporated (NYSE: DGX) is the world's leading provider of diagnostic testing, information and services.

"As a leader in diagnostics for hematologic cancers, we believe our studies will help investigators better understand the mechanism of therapy resistance so they may develop more effective, personalized treatments for subsets of patients with CML. We are also hopeful that our studies on CML may provide the basis for one day developing commercial laboratory tests that will help physicians predict which patients may not respond to conventional CML therapy, so they may begin alternative treatment options sooner," said Maher Albitar, M.D., medical director and chief of Research and Development, Hematology and Oncology, Quest Diagnostics Nichols Institute, the esoteric research, development and testing operation of Quest Diagnostics.

"In addition, we are excited by results of a study related to prostate cancer conducted by our oncology diagnostics team at Nichols Institute. While more research is needed, these data may help us to eventually develop a noninvasive test for differentiating patients with prostate cancer from those who have benign prostate hyperplasia, a common condition whose symptoms can mimic cancer," Dr. Albitar said.

The study result abstracts to be shown during the ASCO meeting developed by Quest Diagnostics scientists include:

-- Resistance to imatinib therapy (Gleevec(R)) in patients with chronic myeloid leukemia (CML): Scientists from Quest Diagnostics, University of Texas M. D. Anderson Cancer Center, and Consortium for Bioinformatics demonstrated that 73 percent of patients with CML who are resistant to treatment with imatinib exhibited the presence of alternatively spliced BCR-ABL1 mRNA with a 35-bp insertion (BCR-ABL135INS). The scientists also determined that imatinib, when combined with nilotinib or homoharringtonine (HHT), showed strong synergy, overcoming BCR-ABL135INS-induced resistance in vitro. The findings emphasize the importance of the overlooked alternatively spliced BCR-ABL135INS protein and may provide a strategy to treat resistant disease and eradicate residual CML. Abstract title: "Alternatively spliced truncated BCR-ABL1 protein in CML patients with resistance to kinase inhibitors." (Abstract No: 7026) Link to ASCO abstract: http://www.abstract.asco.org/AbstView_65_33284.html.

In addition, scientists from Quest Diagnostics and M.D. Anderson Cancer Center identified three novel (previously undescribed) mutations along the BCR-ABL tyrosine kinase that may constitute a new class of mutations that "confer significant drug resistance" to imatinib therapy by expressing a truncated BCR-ABL1. Abstract title: "BCR-ABL1 truncation due to premature translation termination as a mechanism of resistance to kinase inhibitors." (Abstract No: 7028) Link to ASCO abstract: http://www.abstract.asco.org/AbstView_65_33182.html.

-- Testing for gene rearrangement and partner genes to enhance detection of prostate cancer: TMPRSS2 gene rearrangements have been reported in 40%-85% of prostate cancer (PCA) patients and have not been found in normal individuals or those with benign prostate hyperplasia (BPH). However, multiple partner genes, including ETS transcription genes, and breakpoints have been reported. Scientists at Quest Diagnostics Nichols Institute developed a laboratory test based on TMPRSS2 5' and 3' intragenic differential expression (IDE) to identify patients with prostate cancer vs. benign prostatic hyperplasia (BPH). Although work is needed to improve plasma RNA quality, the scientists concluded that IDE of plasma TMPRSS2 may be a useful non-invasive diagnostic or prognostic tool. Abstract title: "Intragenic expression profile in tissue and plasma for the detection of TMPRSS2 rearrangements associated with prostate cancer." (Abstract No: 5162) Link to ASCO abstract: http://www.abstract.asco.org/AbstView_65_34640.html.

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