



## New Test from Quest Diagnostics Helps Physicians Choose HIV Antiretroviral Therapy in Patients with History of Drug Resistance

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Faster reporting aids physicians in identifying HIV mutations that can inhibit effectiveness of newest class of antiretroviral therapy

MADISON, N.J., June 12 /PRNewswire-FirstCall/ -- Quest Diagnostics Incorporated (NYSE: DGX), the world's leading provider of diagnostic testing, information and services, today announced the availability of a new laboratory developed test designed to help physicians determine whether a patient with a history of HIV drug resistance will respond to the latest class of HIV antiretroviral therapies. The HIV-1 Coreceptor Tropism Test, which reports results in approximately half the time of the nearest competing test, provides physicians with timely information so they may more quickly determine or change therapy based on how the HIV virus infects cells in the individual patient.

"Diagnostic testing is at the center of personalized medicine, providing genetic insights necessary to understand which medicines are most likely to produce a favorable health outcome for the individual patient," said Jon R. Cohen, M.D., senior vice president and chief medical officer, Quest Diagnostics. "Our new HIV tropism test will advance personalized medicine for HIV by helping physicians identify suitable patients for a particular therapy and ensure those who are not suitable do not lose precious treatment time potentially better spent on a different drug."

HIV coreceptor tropism refers to the preference of strains of HIV to bind to, activate and infect cells, promoting disease progression, based on the type of coreceptor on the cell's surface. The newest class of antiretroviral drugs, called entry inhibitors, targets the tropism process involving one or both coreceptors, CCR5 or CXCR4, of CD4 cells, which help the immune system fight infection. HIV-1 viral particles that use the CCR5 coreceptor to infect the cell are called R5-tropic, those using CXCR4 are called X4-tropic, and those using both are called dual-tropic. X4- and dual-tropic viruses typically emerge after years of infection and are found in up to half of patients with a history of drug resistance or those with advanced disease. Guidelines from the U.S. Department of Health and Human Services recommend tropism testing prior to the start of a CCR5 inhibitor, such as maraviroc (Selzentry TM). Three out of four people taking HIV drugs experience treatment failure linked to drug resistance.

"CCR5 antagonist entry inhibitors have given physicians new options for treating thousands of patients with HIV who have shown resistance to earlier HIV therapies. Yet, they are only suitable for about half of these patients due to different ways the virus tries to infect cells," said Jay G. Wohlgenuth, M.D., vice president of Science and Innovation, Quest Diagnostics. "With our new tropism test, we expect to report results within seven days of receiving a patient specimen, compared to the leading commercial HIV tropism test, which requires two weeks of processing time once a sample is received. Considering that tropism status can change in as little as a few weeks in patients with a history of HIV drug resistance, faster results potentially translate into earlier initiation of efficacious therapy."

At the XVIII International HIV Drug Resistance Workshop in Fort Meyers, Florida, Quest Diagnostics scientists yesterday presented results of a three-way study using samples from patients with histories of drug resistance that found that the Quest Diagnostics HIV-1 Coreceptor Tropism laboratory developed test demonstrated 74 percent agreement with Trofile(TM), the leading phenotypic tropism test available from Monogram Biosciences, and 74 percent agreement with SensiTrop(TM) II, a genotypic tropism test previously available from Pathway Diagnostics. The SensiTrop(TM) II test, which is no longer commercially available, was 73 percent in agreement with Trofile(TM). The Quest Diagnostics investigators concluded that the concordance between the two independently developed genotypic tropism tests was comparable to the concordance of each assay with the Trofile, and that the proportion of X4 viruses detected did not vary significantly by assay type.

Quest Diagnostics had offered a prior version of the SensiTrop test through a license with Pathway Diagnostics before acquiring the company during the fourth quarter 2008. The company's new HIV-1 Coreceptor test employs a novel molecular-based technology developed by Quest Diagnostics scientists.

The Quest Diagnostics HIV laboratory testing services menu is the most comprehensive in the diagnostic industry. In addition to HIV tropism testing, the company's test services range from HIV diagnostic testing to monitoring HIV viral load, determining a viral genotype, and testing for the HLA-B\*5701 genetic marker as an aid in predicting a hypersensitivity reaction to abacavir (Ziagen(R)), an antiretroviral therapy.

### About HIV and AIDS

HIV, or the human immunodeficiency virus, is a retrovirus that infects cells of the human immune system, destroying or impairing their function. The two major viruses that cause AIDS are HIV-1 and HIV-2. The most common, HIV-1, is found worldwide, while HIV-2 is primarily confined to West Africa. The most advanced stage of HIV infection is AIDS, or acquired immunodeficiency syndrome. HIV can take up to 15 years to develop into AIDS, a process that antiretroviral drugs can help delay. The World Health Organization estimates that approximately 1.2 million people over the age of 15 in the U.S. were infected with HIV in 2005, the most recent year for which data is available. HIV antiretroviral therapy (ART) is designed to suppresses or stop HIV disease progression.

### 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 [www.QuestDiagnostics.com](http://www.QuestDiagnostics.com).

The statements in this press release which are not historical facts may be forward-looking statements. Readers are cautioned not to place undue reliance on forward-looking statements, which speak only as of the date that they are made and which reflect management's current estimates, projections, expectations or beliefs and which involve risks and uncertainties that could cause actual results and outcomes to be materially different. Risks and uncertainties that may affect the future results of the company include, but are not limited to, adverse results from pending or future government investigations, lawsuits or private actions, the competitive environment, changes in government regulations, changing relationships with

customers, payers, suppliers and strategic partners and other factors discussed in "Business" in Part I, Item 1, "Risk Factors" and "Cautionary Factors that May Affect Future Results" in Part I, Item 1A, "Legal Proceedings" in Part I, Item 3, "Management's Discussion and Analysis of Financial Condition and Results of Operations" in Part II, Item 7 and "Quantitative and Qualitative Disclosures About Market Risk" in Part II, Item 7A in the company's 2008 Annual Report on Form 10-K and "Management's Discussion and Analysis of Financial Condition and Results of Operations" and "Quantitative and Qualitative Disclosures About Market Risk" in the company's 2009 Quarterly Report on Form 10-Q and other items throughout the Form 10-K and the company's 2009 Quarterly Reports on Form 10-Q and Current Reports on Form 8-K.

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