



Quest Diagnostics Announces Licensing Agreement for Genetic Testing Technology to Screen for Most Common Inherited Mental Impairment, Fragile X Syndrome

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New Technology Will Allow for Widespread Population-Based Carrier Screenings

LYNDHURST, N.J., Jan. 19 /PRNewswire-FirstCall/ -- In a move that promises to advance physicians' ability to widely screen for Fragile X Syndrome (FXS), the most common form of inherited mental retardation,⁽¹⁾ Quest Diagnostics Incorporated (NYSE: DGX) today announced the signing of a worldwide license agreement with U.S. Genomics. The terms grant Quest Diagnostics rights to develop an advanced screening method for FXS based on Quest Diagnostics' and U.S. Genomics' jointly developed genetic testing technology. Additional terms of the agreement were not disclosed. Approximately one in 1,500 males and one in 4,000 to 6,000 females worldwide are born with FXS.⁽¹⁾

Using U.S. Genomics' applications, Quest Diagnostics plans to develop an automated testing process, resulting in a simpler, more efficient test that allows physicians to have access to, for the first time, widespread population-based carrier testing.

Quest Diagnostics will develop the new test to address and resolve the limitations of current FXS screening. Such tests currently involve a complex combination of techniques, which makes testing cumbersome and impractical for prenatal and pregnancy screening programs. The new test also should help physicians, including pediatricians, neurologists and obstetrician-gynecologists, more efficiently screen patients with mental, neurological or endocrine symptoms that may be caused by a Fragile X gene mutation.

The American College of Medical Genetics and the American College of Obstetricians and Gynecologists recommend that FXS testing be offered to any child who has developmental delays or mental retardation, autistic-like features, or other physical findings and behavior consistent with the syndrome.^{(2),(3)}

FXS is caused by a genetic mutation on the X chromosome, one of the two sex chromosomes in humans. Males with FXS usually have moderate to severe mental retardation, profound speech delays and attention deficit hyperactivity disorder, and display some features of autistic spectrum disorder. In addition, they may have characteristic physical features, such as a large head, long face and protruding ears. Females with the condition have milder mental retardation and less behavioral and cognitive impairment than males, and generally do not develop the characteristic physical features associated with the disease.

According to the National Fragile X Foundation, it is estimated that 37,200 males in the United States are affected with FXS, of which approximately 9,700 are under the age of 18. The Foundation estimates that about 62,500 U.S. females are predicted to carry a Fragile X allele (genetic mutation).⁽¹⁾ Both males and females can be carriers for either the pre-mutation or full mutation of the FXS gene. Twenty percent of female carriers of the Fragile X pre-mutation will experience fertility problems due to premature ovarian failure,⁽⁴⁾ while 39 percent of male pre-mutation carriers will develop symptoms of tremor and clumsiness after the age of 50.⁽⁵⁾

In contrast to other inherited diseases, such as Cystic Fibrosis and Tay Sachs, where both parents must be carriers before a pregnancy is at risk, with FXS, if a woman is a carrier, all her pregnancies are at-risk for having an affected child. Population-based carrier screening for FXS would likely identify approximately two to three times more at-risk pregnancies than those diseases for which population-based carrier screening has already been recommended.

Physicians currently use two types of DNA testing to screen for FXS. The tests are highly accurate; however, because they involve a number of elaborate steps over the course of several days, as well as a high level of technical expertise, they cannot be efficiently applied to screen large populations.

"Our license agreement with U.S. Genomics demonstrates our continued leadership in carrier-based genetic testing for at-risk patient populations," said Joyce G. Schwartz, MD, Vice President and Chief Laboratory Officer, Quest Diagnostics. "We feel the U.S. Genomics' technology will enable us to create an accurate, efficient screening test for FXS and other common causes of inherited mental impairment."

"U.S. Genomics is excited to work with Quest Diagnostics on these important applications," said John Canepa, Chief Executive Officer and President of U.S. Genomics. "With this robust new testing technology, there is the potential to dramatically expand the screening market to include all of the estimated 4.2 million pregnancies in the United States each year."

About Quest Diagnostics

Quest Diagnostics is the 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 national 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 new diagnostic tests and advanced healthcare information technology solutions that help improve patient care. Additional company information is available at: <http://www.questdiagnostics.com>.

The statements in this press release that are not historical facts or information may be forward-looking statements. These forward-looking statements involve risks and uncertainties that could cause actual results and outcomes to be materially different. Certain of these risks and uncertainties may include, but are not limited to, competitive environment, changes in government regulations, changing relationships with customers, payers, suppliers and strategic partners and other factors described in the Quest Diagnostics Incorporated 2005 Form 10-K and subsequent SEC filings.

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SOURCE Quest Diagnostics Incorporated

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