



## **Asuragen Reports Results from a Multi-Center Study on Fragile X Gene Expansion Risk at the Annual Meeting of the American College of Medical Genetics**

**Austin, Texas – March 16, 2011.** Asuragen, Inc. announced today preliminary results revealing the risks of expansion for intermediate and small premutation fragile X alleles in more than 1,000 clinical samples that will be presented at the 2011 Annual Meeting of the American College of Medical Genetics being held in Vancouver, British Columbia from March 16-20<sup>th</sup>. The study, performed in collaboration with leading fragile X research centers at the New York Institute for Basic Research in Developmental Disabilities, Rush University Medical Center, Emory University School of Medicine, and the M.I.N.D. Institute at the University of California Davis, applied Asuragen's proprietary and novel *FMR1* genotyping methods to determine the incidence and nature of repeat expansion as a function of the underlying AGG structure. These results may have important implications for the interpretation of risk and genetic counseling for the estimated 1 million fragile X carriers in the US.

Fragile X syndrome is characterized by an expansion of CGG triplet repeats in the 5' region of the *FMR1* gene. Many *FMR1* alleles contain AGG sequences that are interspersed among the CGG repeats. These AGG "interruptions" are thought to confer DNA stability and to reduce the risk of expansion in the next generation. "Asuragen has developed the technology to analyze the fine structure of the fragile X repeat in females, which was practically impossible up to now. With this sophisticated technology we can examine the way the AGGs in the repeat affect its stability when it is transmitted from a woman to her child," commented Sarah Nolin, Ph.D., Director of the Fragile X laboratory at the New York Institute for Basic Research in Developmental Disabilities. "Our study links the length of the uninterrupted 3' CGG repeat with expansion and suggests a threshold for the risk of expansion. The ability to obtain this level of molecular information will have a profound impact on assessing the risk for women who could have a child affected by this disorder. We have recently submitted a manuscript summarizing our prenatal studies of more than 1,100 pregnancies. With Asuragen's new technology we were able to examine the repeat structure for some unusual transmissions. In the future I expect this technique to provide valuable information for females identified to carry an expanded *FMR1* allele."

"The development of AGG mapping technology adds to our comprehensive approach to molecular interrogation of the *FMR1* gene, including AmplideX<sup>™</sup>, our current CGG repeat primed PCR research reagents", stated Matt Winkler, Ph.D., CEO of Asuragen. "We have chosen to focus in areas like fragile X where our extensive molecular technology development expertise creates breakthrough opportunities for improving patient care. We will begin offering AGG mapping services through our CAP-accredited CLIA laboratory in early May."

### **About Asuragen**

Asuragen is a fully integrated diagnostic development company and pharmaceutical services provider. The Company's diagnostic product portfolio consists of the first-ever validated microRNA diagnostic assay for pancreatic cancer, quantitative RNA tests for leukemia gene translocations, innovative genetic testing solutions for the fragile X mental retardation (*FMR1*) gene, Signature<sup>®</sup> Oncology products for the qualitative detection of gene translocations and mutations in a variety of hematological and solid tumors, RNA stabilization technologies, and industry-leading controls and standards engineered using its patented Armored RNA<sup>®</sup> technology. Asuragen is empowered with a high level of scientific expertise and assay development capabilities, CLIA and GLP testing services, and an established cGMP manufacturing facility, which allow it to span the spectrum of discovery, testing, production and commercialization for companion diagnostics. For more information, visit [www.asuragen.com](http://www.asuragen.com).

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