

Isis and CHDI Foundation Renew Drug Development Collaboration for Huntington's Disease

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Isis Pharmaceuticals, Inc. (NASDAQ: ISIS) and CHDI Foundation, Inc. announced today a renewal of their collaboration to discover and develop an antisense drug for the treatment of Huntington's disease (HD), a fatal neurodegenerative disorder. This collaboration builds upon earlier successful alliances in which CHDI, a non-profit biomedical research organization dedicated to the development of therapeutics for HD, provided funding to support Isis' early work in HD.

"Reducing the amount of mutant huntingtin, the protein that causes Huntington's disease, is an integral part of CHDI's therapeutic portfolio. Antisense oligonucleotides show considerable potential in this regard and we're excited to work further with Isis to develop this approach as a therapy for HD," said Alex Kiselyov, Director, Chemistry at CHDI.

Under the terms of the new collaboration, Isis will receive funding from CHDI to identify and conduct IND-enabling studies on an antisense drug targeting the huntingtin gene. In addition, Isis is eligible to be reimbursed by CHDI for approximately \$2 million of HD research-related expenses Isis incurred after the earlier collaboration ended in 2010. Upon completion of IND-enabling studies, Isis and CHDI expect to continue to collaborate on the clinical development of drugs arising from the collaboration.

"We are pleased to be working again with CHDI to identify a potential new therapy for Huntington's disease, a condition for which there is currently only very limited treatment options available. In earlier preclinical work, we observed a significant reduction in the expression of the huntingtin gene in various preclinical models of disease and the reversal of motor dysfunction in symptomatic mouse models of disease. These promising results support our continued enthusiasm for research in this area and provide a glimpse into the potential therapeutic opportunity antisense could offer," said Frank Bennett, Senior Vice President of Research at Isis.

ABOUT HUNTINGTON'S DISEASE

Huntington's disease is an inherited neurodegenerative disorder caused by a mutation in the huntingtin gene. The defect causes a DNA sequence called a CAG repeat to occur many more times than normal. Each child of a parent with a mutation in the huntingtin gene has a 50% chance of inheriting the mutation. As a result of carrying the mutation, an individual's brain cells degenerate leading to behavioral, cognitive, and motor impairments that, over the course of the disease, significantly reduce the individual's quality of life and ultimately cause death within 15 to 25 years of overt symptom onset. There are currently no therapeutics approved that slow the progression of Huntington's disease. It is estimated that the disorder affects about 30,000 people in the United States and at least 150,000 others have a 50% risk of developing Huntington's disease at some point.

ABOUT CHDI FOUNDATION, INC.

CHDI Foundation, Inc. is a privately-funded, not-for-profit, scientific organization exclusively dedicated to rapidly discovering and developing therapies that slow the progression of Huntington's disease. As a collaborative enabler, CHDI seeks to bring the right partners together to identify and address critical scientific issues and move drug candidates to clinical evaluation as quickly as possible. Our scientists work closely with a network of more than 600 researchers in academic and industrial laboratories around the world in the pursuit of these novel therapies, providing project management to ensure that our common goals remain in focus. More information about CHDI can be found at www.chdifoundation.org.

ABOUT ISIS PHARMACEUTICALS, INC.

Isis is exploiting its leadership position in antisense technology to discover and develop novel drugs for its product pipeline and for its partners. Isis' broad pipeline consists of 24 drugs to treat a wide variety of diseases with an emphasis on cardiovascular, metabolic and severe and rare/neurodegenerative diseases, and cancer. Isis' partner, Genzyme, plans to commercialize Isis' lead product, mipomersen, following regulatory approval, which is expected in 2012. Isis' patents provide strong and extensive protection for its drugs and technology. Additional information about Isis is available at www.isispharm.com.

ISIS PHARMACEUTICALS' FORWARD-LOOKING STATEMENT

This press release includes forward-looking statements regarding Isis' plans for discovery and development of antisense drugs for Huntington's disease and other neurodegenerative disorders, and about its collaboration with CHDI. Any statement describing Isis' goals, expectations, financial or other projections, intentions or beliefs, including the planned commercialization of mipomersen is a forward-looking statement and should be considered an at-risk statement. Such statements are subject to certain risks and uncertainties, particularly those inherent in the process of discovering, developing and commercializing drugs that are safe and effective for use as human therapeutics, and in the endeavor of building a business around such drugs. Isis' forward-looking statements also involve assumptions that, if they never materialize or prove correct, could cause its results to differ materially from those expressed or implied by such forward-looking statements. Although Isis' forward-looking statements reflect the good faith judgment of its management, these statements are based only on facts and factors currently known by Isis. As a result, you are cautioned not to rely on these forward-looking statements. These and other risks concerning Isis' programs are described in additional detail in Isis' annual report on Form 10-K for the year ended December 31, 2010 and its most recent quarterly report on Form 10-Q, which are on file with the SEC. Copies of these and other documents are available from the Company.

In this press release, unless the context requires otherwise, "Isis," "Company," "we," "our," and "us" refers to Isis Pharmaceuticals and its subsidiaries, including Regulus Therapeutics Inc., its jointly owned subsidiary.

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