uniQure Presents New Preclinical Data on AMT-130 at the CHDI's 14th Annual Huntington's Disease Therapeutics Conference

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~ AMT-130 Shows Restoration of Brain Cell Function and Reversal of Neuropathology in Huntington's Disease Mouse Model ~

LEXINGTON, Mass. and AMSTERDAM, the Netherlands, Feb. 27, 2019 (GLOBE NEWSWIRE) -- uniQure N.V. (NASDAQ: QURE), a leading gene therapy company advancing transformative therapies for patients with severe medical needs, today presented new preclinical data on AMT-130, its gene therapy candidate for the treatment of Huntington's disease (HD) at the 14th Annual CHDI Huntington's disease Therapeutics Conference in Palm Springs, California.

"Findings from our preclinical studies illustrate the therapeutic potential of AMT-130 in restoring function to damaged brain cells in Huntington's disease and providing a safe and sustained reduction of mutant huntingtin protein with a gene therapy candidate that could be applicable to a broad patient population," stated Sander van Deventer, M.D., Ph.D., chief scientific officer at uniQure.

Five scientific abstracts submitted by uniQure researchers were accepted for presentation at the conference. Among these abstracts are the following poster presentations featuring new data on AMT-130:

Magnetic resonance spectroscopy (MRS) shows restoration of neuronal function in a HD mouse model treated with AMT-130.

In this study, a non-invasive technique called MRS was used to measure biomarkers for the health of brain cells in HD mice after treatment with AMT-130 by direct injection in the striatum. At 3 months after administration, significant levels of vector were present in the treated areas resulting in robust expression of microRNA and a significant knock down of the mutant huntingtin protein (mHTT). The MRS analyses showed improvement in brain cell function, a reversal in HD neuropathology, and a partial reversal of volume loss in a key brain region involved in memory called the hippocampus.

Pre-existing serum antibodies to AAV5 Neutralizing Antibodies (NABs) are not found in the cerebrospinal fluid (CSF).

The presence of pre-existing neutralizing antibodies (NABs) can reduce the efficacy of gene therapy. Thirty matched serum and CSF samples from wild-type minipigs were analyzed for NABs. Serum samples showed detectable levels of anti-AAV5 NABs in the range of titers 2 to 256. All paired CSF samples were negative for the presence of anti-AAV5 NABs.

For comparison, a prevalence study in 350 healthy donors showed serum anti-AAV5 NABs titers below 256 in 88% of the subjects' serum. The Company has previously reported data that show anti-AAV5 NAB titers up to 340 in humans, and as high as 1,030 in primates, did not interfere with the therapeutic effect of AAV5 gene therapies. Therefore, this study suggests the risk of reduced efficacy due to anti-AAV5 NABs is low when AAV5 vectors are administered into the brain or spinal fluid.

Virtual neurosurgical planning demonstrates the safety of deep brain gene delivery in patients with early manifest HD.

High-resolution magnetic resonance imaging (MRI) scans from 20 patients with early manifest HD were analyzed to simulate the neurosurgical insertion of micro-catheters by a specialized technique called convection-enhanced delivery. The results identify specific micro-catheter trajectories that are projected to safely deliver gene therapy and provide enough coverage to efficiently transduce the brain regions involved in HD.

"uniQure's neuroimaging translational studies in non-human primates and Huntington's disease patients shows the importance of careful, individualized neurosurgical planning and meticulous dosing parameters in delivering gene therapy products to the brain," added Joseph J. Higgins, M.D., F.A.A.N., vice president, clinical development. "We are excited about the AMT-130 clinical development program and look forward to treating the first patient in the second half of this year and announcing initial safety data by year-end."

Additional data presented at the CHDI conference include:

- **Oral Session II:** "Gene Therapy for Huntington's Disease: Silencing the Villain." Pavlina Konstantinova, Ph.D., vice president, new therapeutic target discovery at uniQure, participated in the featured session "HTT Lowering" on Tuesday, February 26 delivering an oral presentation.
- **Poster #7:** Transfer of therapeutic miRNAs within extracellular vesicles secreted from Huntington's disease iPSC-derived neurons.
- **Poster #5:** Sustained mutant huntingtin lowering in the brain and cerebrospinal fluid of Huntington disease minipigs mediated by AAV5-miHTT gene therapy.

About Huntington's Disease
Huntington's disease is a rare, inherited neurodegenerative disorder that leads to loss of muscle coordination, behavioral abnormalities and cognitive decline, resulting in complete physical and mental deterioration. The disease is an autosomal dominant condition with a disease-causing CAG repeat expansion in the first exon of the huntingtin gene, that leads to the production and aggregation of abnormal protein in the brain. Despite the clear etiology of HD, there are no therapies to delay the onset, or to slow the disease's progression.

About uniQure
uniQure is delivering on the promise of gene therapy – single treatments with potentially curative results. We are leveraging our modular and validated technology platform to rapidly advance a pipeline of proprietary and partnered gene therapies to treat patients with hemophilia, Huntington's disease and other severe genetic diseases. www.uniQure.com

uniQure Forward-Looking Statements

This press release contains forward-looking statements. All statements other than statements of historical fact are forward-looking statements, which are often

indicated by terms such as "anticipate," "believe," "could," "estimate," "expect," "goal," "intend," "look forward to", "may," "plan," "potential," "predict," "project," "should," "will," "would" and similar expressions. Forward-looking statements are based on management's beliefs and assumptions and on information available to management only as of the date of this press release. These forward-looking statements include, but are not limited to, the achievement of any of our planned near term or other milestones, our ability to become the first AAV Gene therapy for Huntington's Disease to begin clinical trials, our ability to initiate our planned dose-escalating, randomized and controlled Phase I/II clinical trial, our ability to open several clinical sites in the United States and begin enrolling patients in the second half of this year or ever, the development of our gene therapy product candidates, the ability to achieve therapeutic or curative effects in human patients in any of our product candidates, whether our proprietary miQURE™ gene silencing platform can be applied to any other diseases, such as spinocerebellar ataxia type 3 (SCA3), the ability to produce a product candidate that is safe and effective, the ability to obtain regulatory approval for any of our product candidates, and the risk of cessation, delay or lack of success of any of our ongoing or planned clinical studies and/or development of our product candidates. Our actual results could differ materially from those anticipated in these forward-looking statements for many reasons, including, without limitation, risks associated with our and our collaboration activities, product development activities, corporate reorganizations and strategic shifts, regulatory oversight, product commercialization and intellectual property claims, as well as the risks, uncertainties and other factors described under the heading "Risk Factors" in uniQure's Annual Report on Form 10-K filed on March 14, 2018 and Quarterly Report on Form 10-Q filed on November 6, 2018. Given these risks, uncertainties and other factors, you should not place undue reliance on these forward-looking statements, and we assume no obligation to update these forward-looking statements, even if new information becomes available in the future.

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