uniQure Presents Multiple New Preclinical Data on AMT-130 at the CHDI's 15th Annual Huntington's Disease Therapeutics Conference

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~ Up to Two Years of Follow-up in Large Transgenic Huntington's Disease Model Demonstrates Stable mHTT Protein Lowering ~

~ Novel Preclinical Data Demonstrates Successful Lowering of Pathogenic Exon 1 Fragment ~

~ Additional Data Demonstrates the Potential of MRS as Imaging Biomarker for Huntington's Disease Gene-Therapy Studies ~

LEXINGTON, Mass. and AMSTERDAM, the Netherlands, Feb. 27, 2020 (GLOBE NEWSWIRE) -- uniQure N.V. (NASDAQ: QURE), a leading gene therapy company advancing transformative therapies for patients with severe medical needs, today announced the presentation of multiple new preclinical data on AMT-130, its investigational AAV gene therapy for the treatment of Huntington's disease (HD), at the 15th Annual CHDI Huntington's disease Therapeutics Conference in Palm Springs, California.

"Our data presentations at CHDI illustrate the increasing potential of AMT-130 to target the highly toxic exon 1 protein fragment, achieve broad vector biodistribution across several animal species and show meaningful activity using the presence of extracellular vesicles as a potential biomarker," stated Sander van Deventer, M.D., Ph.D., executive vice president, research & product development of uniQure. "In addition, we highlight the use of magnetic resonance spectroscopy as a potentially important imaging biomarker to measure the restoration of target tissue. Collectively, these findings represent a robust package of new preclinical data to better inform how researchers and clinicians pursue a much-needed treatment for this devastating disease."

Four scientific abstracts submitted by uniQure researchers were accepted for presentation at the conference, of which one is an oral presentation to be featured today. Important findings across several preclinical studies presented at the conference include the following:

Translatable Biomarkers in Gene Therapy for Huntington Disease: Learnings from Pre-clinical Studies

- In identifying translatable biomarkers for gene therapy studies in Huntington's disease, transgenic Huntington's disease minipigs were used to assess the biodistribution and target engagement in a larger brain. The minipig model is the largest diseased animal model available, generally weighing up to 300 pounds.

- AMT-130 was administered by MRI-guided convention-enhanced delivery (CED) at a single dose, bilaterally in the caudate and putamen. Vector DNA distribution and transgene expression in minipig brains demonstrated extensive brain coverage comparable at the two interim sacrifice timepoints of 6- and 12-months post administration, leading to significant lowering of mutant huntingtin (mHTT) protein in the brain.

- At 12 months, the most pronounced mHTT protein lowering was observed in the putamen (85%), caudate (80%) and amygdala (78%), followed by thalamus (56%) and cerebral cortex (44%). The ongoing study that now includes up to two years of follow-up, demonstrated stable mHTT protein lowering of up to 30 percent in the cerebrospinal fluid (CSF) of minipigs after a single administration of AMT-130.

Secreted Therapeutics: Monitoring Durability of microRNA-based Gene Therapies in Huntington's disease

- Neurons derived from the induced pluripotent stem cells (iPSC) of Huntington's disease patients were used to study the presence of extracellular therapeutic microRNA targeting human huntingtin (miHTT) after transduction with AMT-130. Extracellular vesicles were identified as carriers of RNA species, including microRNAs, and are therefore potential biomarkers for diagnosis and pharmacokinetics. Results from this new study demonstrated that therapeutic miHTT molecules are secreted in a dose-dependent manner from AMT-130-treated neuronal cells, providing the potential of a promising translational marker to monitor long-term expression of AMT-130 gene therapy in the brain.

- To support these results, non-human primates received a single administration of AMT-130 resulting in widespread distribution of therapeutic miHTT molecules in both the striatum and cortex, as well as the presence of therapeutic miHTT molecules in the CSF up to 6 months after intrastriatal injection of AMT-130.

Lowering the Pathogenic Exon 1 HTT Fragment by AAV5-miHTT Gene Therapy

- In a study using the Q175FDN mouse model, the target engagement of aberrantly spliced exon 1 HTT transcript (exon 1 HTT) was investigated. These new preclinical data demonstrated that the mice treated with AMT-130 experienced a dose-dependent lowering of exon 1 HTT mRNA in both the striatum and cortex, as well as the full-length HTT mRNA. The lowering was shown to be well correlated with the detected levels of vector DNA and mature miHTT molecules in the mice treated with AMT-130.

Exploring the Effects of Intrastriatal AAV5-miHTT Lowering Therapy on Neuronal Function, MRS Signal and Mutant Huntingtin Levels in the

Q175FDN Mouse Model of Huntington's disease

- Magnetic resonance spectroscopy (MRS) data in the Q175FDN mouse model of Huntington's disease demonstrate that levels of N-acetyl aspartate (NAA), a neuronal integrity marker, were restored in mice treated with the high dose of AMT-130, supporting the use of imaging biomarkers in gene therapy studies for Huntington's disease. Importantly, effects of mHTT silencing in the Q175FDN model on MRS were complemented by additional data on striatal gene expression profiles, demonstrating a trend towards normalization with AMT-130 treatment. These new data build on earlier MRS and MRI data suggesting improvement in brain cell function, a reversal in Huntington's disease neuropathology and a partial reversal of volume loss in the hippocampus, a key brain region involved in memory.

The uniQure data presentations featured at CHDI are available on the investor page of the Company's website, www.uniQure.com

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 Huntington's disease, 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 gene therapies to treat patients with hemophilia B, hemophilia A, Huntington's disease, Fabry disease, spinocerebellar ataxia Type 3 and other 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, whether AMT-130 will target the highly toxic exon 1 protein fragment, achieve broad vector biodistribution across several animal species or show meaningful activity using the presence of extracellular vesicles as a potential biomarker, and whether magnetic resonance spectroscopy will be an important imaging biomarker to measure the restoration of target tissue. 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 collaborators' clinical development activities, clinical results, collaboration arrangements, 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 Quarterly Report on Form 10-Q filed on October 28, 2019. 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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