



## uniQure Announces One-Year Follow-Up Data from the Phase IIb Study of Etranacogene Dezaparvovec and Long-Term Follow-Up Data for AMT-060 in Patients with Hemophilia B

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~ Sustained FIX Activity at Therapeutic Levels<sup>1</sup> Up to 50% of Normal at One Year After Administration of Etranacogene Dezaparvovec in Phase IIb Study ~

~ Zero Bleeds and No Requirement for Immunosuppression in One Year Following Dosing with Etranacogene Dezaparvovec ~

~ Long-term Clinical Benefit and Tolerability of AMT-060 Maintained in All Patients Through up to 4 Years of Follow-Up ~

~ Investor Webcast on Monday, December 9, 2019 at 7:00 a.m. EST ~

LEXINGTON, Mass. and AMSTERDAM, the Netherlands, Dec. 08, 2019 (GLOBE NEWSWIRE) -- [uniQure N.V.](#) (NASDAQ: QURE), a leading gene therapy company advancing transformative therapies for patients with severe medical needs, today announced updated clinical data on the three patients treated in uniQure's ongoing Phase IIb study of [etranacogene dezaparvovec](#), an investigational [AAV5](#)-based gene therapy containing a patent-protected FIX-Padua variant for the treatment of patients with severe and moderately severe hemophilia B. In addition, uniQure presented up to 4 years of follow-up data on the 10 patients in the Phase I/II trial of AMT-060, its first-generation gene therapy for the treatment of hemophilia B. These clinical data are being presented this weekend in poster presentations at the 61<sup>st</sup> Annual Meeting of the American Society of Hematology (ASH), taking place in Orlando, Florida.

### At Least One Year of Stable, Therapeutic Levels of FIX Activity in Patients Treated with Etranacogene Dezaparvovec

The Phase IIb study of etranacogene dezaparvovec is an open-label, single-dose, single-arm, multi-center trial being conducted in the United States. Three patients with severe hemophilia (endogenous Factor IX (FIX) activity less than or equal to one percent) were enrolled in the study and received a single intravenous infusion of  $2 \times 10^{13}$  gc/kg. Prior to the administration of etranacogene dezaparvovec, all three patients showed low levels of pre-existing neutralizing antibodies to AAV5 but were not excluded from the trial on that basis. The patients in the Phase IIb study were followed for 52 weeks to assess FIX activity, bleeding rates and usage of FIX replacement therapy, and will be monitored for five years to evaluate the safety of etranacogene dezaparvovec.

Featured in a poster presentation at ASH, the 52 weeks of follow-up data show that all three patients have stabilized and sustained FIX activity at therapeutic levels after the one-time administration of etranacogene dezaparvovec. Mean FIX activity for the three patients at 52 weeks after administration was 41% of normal, with the first patient achieving FIX activity of 50% of normal, the second patient achieving FIX activity of 31% of normal and the third patient achieving FIX activity of 41% of normal. The second and third patients had previously screen-failed and were excluded from another gene therapy study due to pre-existing neutralizing antibodies to a different AAV vector. Reported FIX activity was measured using an activated partial thromboplastin time (aPTT) assay performed at a central laboratory.

At one year after dosing, no patient in the study has reported any bleeding events. All patients have remained free of prophylaxis after receiving etranacogene dezaparvovec. One patient, who had earlier in the study undergone hip surgery due to a pre-existing condition, experienced back pain and treated himself with a single infusion of factor replacement, which was later determined by the patient and the investigator to be unrelated to a bleed. No other FIX infusions were reported by any patient.

"These updated data show that a single administration of etranacogene dezaparvovec has been well-tolerated now out 52 weeks and has increased FIX activity into the therapeutic range for people living with hemophilia B," stated Steven Pipe, M.D., professor of pediatrics and pathology and pediatric medical director of the hemophilia and coagulation disorders program at the University of Michigan and a principal investigator in the [HOPE-B clinical trial](#). "These data show a full year of meaningful clinical benefit for all three patients in the study, including durable levels of FIX activity with no bleeds, no requirement for infusions of FIX replacement therapy outside of surgery, and no need for immunosuppression."

"We are very pleased with these latest results, and continue to believe that etranacogene dezaparvovec has the potential to be the first- and best-in-class gene therapy for patients with hemophilia B," stated [Robert Gut](#), M.D., Ph.D., chief medical officer of uniQure. "We remain focused on dosing all patients in our ongoing, fully-enrolled [HOPE-B pivotal trial](#), and expect to announce top-line data on our primary endpoint of Factor IX activity by the end of 2020."

### Stable FIX Expression and Durable Reductions in Bleeding and FIX Consumption for up to 4 Years Following AMT-060 Gene Therapy

In the ongoing Phase I/II study of AMT-060, all 10 patients continue to show long-term clinical benefit, including sustained increases in FIX activity, reduced usage of FIX replacement therapy, and decreased bleeding frequency. At up to 4 years of follow-up, AMT-060 continues to be well-tolerated, with no new serious adverse events and no development of inhibitors since the last reported data.

All five patients in the second dose cohort of  $2 \times 10^{13}$  gc/kg (the dose being studied in the ongoing Phase III HOPE-B study of etranacogene dezaparvovec) continue to be free of routine FIX replacement therapy at 3.5 years after treatment. Based on the six months of data collected during the fourth year of follow-up, the mean annualized bleeding rate was zero compared to an average of 4 bleeds during the year prior to treatment, representing a 100% reduction. During this same period, the usage of FIX replacement therapy also declined 100% compared to the year prior to treatment. Mean FIX activity over 3.5 years was 7.5%.

AMT-060 is uniQure's first-generation gene therapy, consisting of an AAV5 vector carrying a gene cassette with the wild-type FIX gene. uniQure expects that data from this Phase I/II trial of AMT-060 will be part of the regulatory submission for marketing approval of etranacogene dezaparvovec.

"The Phase I/II study of AMT-060 continues to demonstrate notable long-term tolerability," stated Professor Wolfgang Miesbach, M.D., Ph.D., of the University Hospital Frankfurt in Germany. "We have now demonstrated evidence of durable clinical benefits, including sustained FIX activity, improved disease phenotype and substantial reductions in spontaneous bleeds for up to 4 years following administration. These data have the potential to be very meaningful for hemophilia B patients."

### About Etranacogene Dezaparvovec

Etranacogene dezaparvovec consists of an AAV5 viral vector carrying a gene cassette with the patent-protected Padua variant of Factor IX (FIX-Padua). uniQure holds multiple issued patents in the United States and Canada broadly covering methods of treating bleeding disorders, including hemophilia B, using AAV gene therapy with the FIX-Padua variant.

AAV5-based gene therapies have been demonstrated to be safe and well tolerated in a multitude of clinical trials, including four uniQure trials conducted in 25 patients in hemophilia B and other indications. No patient treated in clinical trials with the uniQure's AAV5 gene therapies has experienced any cytotoxic T-cell-mediated immune response to the capsid. Additionally, preclinical and clinical data show that AAV5-based gene therapies may be viable treatments in patients with pre-existing antibodies to AAV5, thereby potentially increasing patient eligibility for treatment compared to other gene therapy product candidates.

### About the Pivotal Phase III HOPE-B Study

The pivotal Phase III HOPE-B trial is a multinational, open-label, single-arm study to evaluate the safety and efficacy of etranacogene dezaparvovec. Sixty-two adult hemophilia B patients classified as severe or moderately severe were enrolled in a six-month observational period, during which time they continued to use their current standard of care to establish a baseline control. After the six-month lead-in period, patients receive a single intravenous administration of etranacogene dezaparvovec at the  $2 \times 10^{13}$  gc/kg dose. Dosing of patients in the HOPE-B pivotal trial was initiated in January 2019.

The study's primary endpoint is the assessment of Factor IX activity 26 weeks after dosing. Secondary endpoints include annualized bleeding rate (ABR) and usage of Factor IX replacement therapy over a 52-week time frame, as well as other efficacy and safety aspects. Post-treatment, patients will be followed for 5 years.

Patients enrolled in the HOPE-B pivotal trial will be tested for the presence of pre-existing neutralizing antibodies to AAV5 but will not be excluded from the trial based on their titers. Previous studies performed by uniQure suggest that AAV5-based gene therapies may be viable treatments for at least 97% of patients.

### Investor/Analyst Breakfast and Webcast Information

uniQure will host an investor breakfast and webcast on Monday, December 9, 2019 at 7:00 a.m. EST featuring Dr. Steven Pipe, principal investigator of the HOPE-B clinical trial, to review the updated data on etranacogene dezaparvovec. To access the call by phone, dial 1-866-966-1396 (United States) or +44 20 719 280 00 (international); the conference ID is 41 64 967.

The webcast may also be accessed through the Investors section of the uniQure's website at <http://uniqure.com/investors-newsroom/overview.php>. Following the live webcast, a replay of the call will be available for two weeks.

### 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 B, hemophilia A, Huntington's disease, Fabry disease, spinocerebellar ataxia Type 3 and cardiovascular diseases. [www.uniQure.com](http://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 etranacogene dezaparvovec will be the first-in-class or best-in-class gene therapy for patients with hemophilia B, whether uniQure will dose all patients in its ongoing HOPE-B pivotal trial, whether uniQure will announce top-line data on the primary endpoint of Factor IX activity in its HOPE-B pivotal trial by the end of 2020 or ever, and whether any clinical data associated with etranacogene dezaparvovec or AMT-060 will be meaningful for hemophilia B patients. 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.*

### uniQure Contacts:

#### FOR INVESTORS:

**Maria E. Cantor**  
Direct: 339-970-7536  
Mobile: 617-680-9452  
[m.cantor@uniQure.com](mailto:m.cantor@uniQure.com)

**Eva M. Mulder**  
Direct: +31 20 240 6103  
Mobile: +31 6 52 33 15 79  
[e.mulder@uniQure.com](mailto:e.mulder@uniQure.com)

#### FOR MEDIA:

**Tom Malone**  
Direct: 339-970-7558  
Mobile: 339-223-8541  
[t.malone@uniQure.com](mailto:t.malone@uniQure.com)

<sup>1</sup> Epidemiological data indicate that factor activity above 12% of normal is associated with substantial reduction or elimination of spontaneous bleeds and factor usage. Den Uijl IE et al Haemophilia 2011; 17(6):849-53