

Upcoming events: UniQure looks to prove gene therapy and crunch time for Tetrphase's lead antibiotic



[Elizabeth Cairns](#)

Welcome to your weekly digest of approaching regulatory and clinical readouts. UniQure will report data on two projects in the coming quarter, one in haemophilia B and another in the rare metabolic disorder Sanfilippo B syndrome. Gene therapies like these are the subject of feverish excitement – look at Bluebird Bio's \$500m fundraising on Wednesday – but with the failure of a somewhat similar candidate, Mydicar, there are no guarantees.

Antibiotics have had a slight resurgence in the past year or so after a decade in the wilderness, and if a phase II trial of Tetrphase Pharmaceuticals' eravacycline in urinary tract infections hits the mark when it emerges in late summer the project could be the latest antibiotic to reach the market.

All the Bs

The third quarter should bring the results of a phase I/II trial of UniQure's AMT-060 in haemophilia B and another of AMT-110 in Sanfilippo B syndrome. Both disorders are orphan indications and therefore potentially highly lucrative – if they can avoid the pitfalls that trapped Celladon's heart failure gene therapy Mydicar.

Mydicar's failure in phase II was conclusive, and since then it has thrown in the towel entirely ([Celladon spoils the gene therapy party, April 27, 2015](#)). The worry for UniQure is that both AMT-060 and '110 use a similar viral capsid to Mydicar to deliver their genes. The results will be watched very closely by more than just UniQure's investors.

The trial of AMT-060 in haemophilia B is necessarily small, enrolling 10 patients, open-label and uncontrolled. Two doses, both one-off infusions delivering the gene for factor IX, are being tested, and Leerink analysts believe that durable expression of the protein above 5% in the haemophilia B patients' blood – [pushing them from moderate to mild disease](#) – would be a good result.

People with Sanfilippo B lack a functioning gene for the enzyme N-acetyl-alpha-D-glucosaminidase; with an incidence of 1 in 200,000 this is 10 times rarer than haemophilia B. Its symptoms tend to manifest in the first five years of age, and affected children develop profound mental retardation with severe muscle problems and die at around age 15.

AMT-110 will deliver the gene directly to patients' brains via intracerebral administration. UniQure has not said exactly what its four-patient trial aims to show, but an improvement in symptoms would surely be a huge win as there are no existing treatments.

What a cUTI

Phase III results on Tetrphase's antibiotic eravacycline are expected mid-year, and ought to determine its chances of approval.

The two-part Ignite 2 study is examining intravenous and oral formulations of eravacycline in complicated urinary tract infections (cUTIs). In the first part of the trial, designed to select an oral dose to take into the second, pivotal portion, both dosing regimens of eravacycline – 1.5mg/kg IV followed by either 200mg or 250mg orally – compared favourably to levofloxacin.

Analysts at Baird wrote that data from the first 143 patients in the study showed eravacycline to have a comfortable margin ahead of the comparator, being 15.1% better numerically on the FDA-required primary endpoint, responder outcome, and 18.6% better on the EMA-required primary endpoint, microbiological response. Tetrphase selected the lower dose for the pivotal portion of Ignite 2.

The Baird analysts believe that when the full data on the remaining 700 or so patients appear the study is likely to hit non-inferiority at a minimum – and has a reasonable shot at superiority.

They expect an NDA filing by year end, and as eravacycline has qualified infectious disease product designation – the FDA’s programme to encourage the development of antibiotics, which entitles it to faster review – approval and launch could come in mid-2016. 2020 sales of eravacycline are forecast at \$424m.

Study	Trial ID
Phase I/II trial of UniQure’s AMT-060 in severe or moderately severe haemophilia B	NCT02396342
Phase III trial of Tetrphase’s eravacycline in cUTIs (Ignite 2)	NCT01978938

To contact the writer of this story email Elizabeth Cairns in London at elizabethc@epvantage.com or follow [@LizEPVantage](https://twitter.com/LizEPVantage) on Twitter