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ILLUMINATE-B, a Phase 3 Open-Label Study to Evaluate Lumasiran, an RNAi Therapeutic, in Young Children with Primary Hyperoxaluria Type 1 (PH1)

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PH1 is a rare genetic disorder characterized by hepatic oxalate overproduction, recurrent kidney stones, nephrocalcinosis, progressive kidney failure, and multiorgan damage from systemic oxalosis. Lumasiran, a subcutaneous investigational RNAi therapeutic, reduces hepatic oxalate production by targeting glycolate oxidase. Results from ILLUMINATE-B, an open-label, Phase 3 study of lumasiran in young children with PH1 are reported here.

Key inclusion criteria: <6 years, PH1 diagnosis, eGFR >45 mL/min/1.73m2 if ≥12m or normal serum creatinine if <12m. Lumasiran dosing: monthly for 3m, then monthly or quarterly. Primary endpoint: % change in UOx excretion from baseline to M6.

Eighteen patients enrolled; median age of 4.3yr (range: 0.3-6). Baseline mean urinary oxalate:creatinine was 0.63 mmol/mmol, which was equivalent to 5.8×ULN. There were no lumasiran-related serious adverse events and no deaths, severe adverse events, or treatment discontinuations. The most common adverse events related to lumasiran were mild, transient injection site reactions in 3/18 patients. Results from the complete primary analysis period will be presented.

The efficacy and safety results in ILLUMINATE B are consistent with those observed in ILLUMINATE-A, a phase 3 trial of lumasiran in older children and adults.

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