BIOBUSINESS BRIEFS

MARKET WATCH

Upcoming market catalysts in Q4 2017

Market catalysts in the fourth quarter of 2017 include top-line clinical trial results for tenapanor (developed by Ardelyx) for constipation-predominant irritable bowel syndrome (IBS-C) and intepirdine (developed by Axovant Sciences) for the treatment of dementia with Lewy bodies, as well as the expected approval of axicabtagene ciloleucel (developed by Kite Pharma) in the United States for the treatment of relapsed/refractory aggressive B cell non-Hodgkin lymphoma (NHL).

Early in the quarter, Ardelyx expects top-line results from T3MPO-2, a 6-month phase III study of tenapanor. This orally administered small molecule inhibits the sodium–proton exchanger NHE3 in the gastrointestinal tract, which increases the amount of sodium and fluid in the gut, thereby loosening stools. Results from a previous 12-week phase III study known as T3MPO-1 were statistically significant for the primary composite end point of response rate, and seven out of eight secondary end points were met. Compared with other IBS-C treatments, tenapanor showed comparable, albeit numerically lower, efficacy results to the guanylate cyclase C (GCC) agonist linaclotide (Linzess; Ironwood Pharmaceuticals) and a higher rate of diarrhoea compared with another GCC agonist, plecanatide (Trulance; Synergy), an expected reaction due to tenapanor's mechanism of action. Although tenapanor might be slightly less efficacious than linaclotide and less tolerable than plecanatide, its novel mechanism of action sets it apart. Pending the T3MPO-2 results, Ardelyx is preparing to submit a new drug application for IBS-C in 2018.

Axovant anticipates releasing results from two phase II dementia studies of intepirdine, an orally administered $5HT_6$ receptor antagonist. The first is a phase IIb study called HEADWAY-DLB in 269 patients with dementia with Lewy bodies. The second is a smaller study on gait and balance in 40 patients with dementia. Intepirdine has already shown modest efficacy as an adjunctive treatment in a phase IIb trial in mild to moderate Alzheimer disease, and further results from a pivotal trial in Alzheimer disease are anticipated in late September. In light of the failure of other $5HT_6$ receptor antagonists — including the recent failure of Lundbeck's idalopirdine in several phase III trials in Alzheimer disease — the upcoming phase III data in Alzheimer disease, along with the phase II data in dementia, will give important guidance to the future market opportunities for intepirdine.

The Biologics License Application for Kite Pharma's axicabtagene ciloleucel for the treatment of relapsed/refractory aggressive B cell NHL is under priority review, with a Prescription Drug User Fee Act target action date of 29 November 2017. This FDA-designated breakthrough therapy consists of a patient's peripheral blood T lymphocytes that have been genetically engineered *in vitro* with chimeric antigen receptors (CAR), enabling them to recognize the tumour-expressed molecule CD19 after infusion back into the patient. Results from the pivotal ZUMA-1 trial (involving 101 patients) were impressive, with a 6-month 31% durable complete response rate in the subset of 77 patients with diffuse large B cell lymphoma, an indication without many treatment options. There were three deaths not due to disease progression, two of which were deemed to be related to axicabtagene ciloleucel. The cell therapy could be the first approved product from Kite's portfolio and the second CAR-T therapy approved by the FDA, following the pioneering approval of Novartis's tisagenlecleucel-t (Kymriah) for relapsed/refractory B cell acute lymphoblastic leukaemia on 30 August. Shortly before this approval, on 28 August, Gilead announced that it would acquire Kite for ~US$11.8 billion.

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The author declares no competing interests.