XEN1101

XEN1101 is a next generation K\textsubscript{7} channel opener currently being developed for the treatment of epilepsy. It is formulated for once daily oral administration in the fast state

Depression is common in epilepsy, and it can affect quality of life and treatment adherence. Moreover, some of the most commonly used antidepressant medications can cause exacerbate mood symptoms\textsuperscript{2}

Results from a recently completed large phase 2 study of XEN1101 in 325 subjects with MDD assessed with SHAPS showed a significant effect in reducing reaper frequency and a favorable safety profile. It was generally well-tolerated, with dose-dependent tolerability. The most common treatment-emergent adverse events observed in this study were dizziness, somnolence, fatigue, and headache\textsuperscript{3}

XEN1101 was assessed in the progressive ratio test, a protocol that evaluates the animal’s performance and decisional anhedonia. In this test XEN1101 increased the total number of lever presses, indicating improved motivation versus vehicle (Figure 2).

Figure 1. Results from a double-blind, placebo-controlled study of ezogabine 300 mg tid in subjects with moderate to severe MDD\textsuperscript{6}

Figure 2. Results of the progressive ratio test

CONCLUSIONS

XEN1101 represents a novel molecular mechanism to potentially treat depression. The double-blind, placebo controlled, proof-of-concept study described above will help evaluate the efficacy and safety of this compound in subjects with MDD and inform further development.