

## Retigabine Update

Retigabine is a first in class neuronal potassium channel opener which is believed to work on the neuronal KCNQ2-5(Kv7.2-7.5) potassium channels. These channels help regulate neuronal responsiveness to excitatory input by opposing the depolarizing sodium current required for multiple action potential firing associated with seizures.<sup>1-3</sup> Mutations in KCNQ2 and KCNQ3 are linked to inherited neonatal epilepsy (benign familial neonatal epilepsy, or BFNC)<sup>4</sup>. Retigabine has demonstrated activity in a broad range of experimental seizure models of epilepsy. The clinical efficacy of retigabine vs placebo in the adjunctive treatment of partial onset seizures has been demonstrated in 3 large clinical trials (Studies 2055, 3016, and 3027). The NDA and MAA for retigabine were submitted in October 2009.

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