

## Neurotherapeutics Pharma

NeuroTherapeutics Pharma (NTP) is focused on developing novel therapies for diseases associated with CNS hyper-excitability, including epilepsy and pain. The company has very compelling data, particularly for its lead compound, NTP-2014, which has shown strong efficacy in three robust and highly predictive models of epilepsy and in three pain models (two neuropathic and one nociceptive). In addition to efficacy results, the compound appears highly druggable due to its excellent ADME characteristics, safety pharmacology profile, and toxicology results. The company plans to file its first IND in 2Q10.

NTP-2014 enhances inhibition via a specific and unique mechanism of action that is unlike that of any marketed product. Compounds of this mechanism represent a new class of therapy and have potential application across numerous indications. The binding site, one which has not been previously targeted, and cellular action suggest the potential for strong efficacy with limited side effects in vivo. Interestingly, this is exactly what extensive animal efficacy and toxicology data overwhelmingly supports. Looking forward, the mechanism will enable additional compounds to be identified using SAR via recombinant receptor technology and rapid screening via in vitro electrophysiology. The resulting pipeline of compounds, representing the first of a new class, is covered with intellectual property around the mechanism as well as by composition of matter.

NTP-2014 has shown consistent and significant efficacy in models of epilepsy. In addition to long lasting and near complete suppression of chronic, spontaneous seizures in the Mouse TLE model, a model of treatment-resistant (refractory) complex partial epilepsy, NTP-2014 has also shown complete suppression of seizures in both the MES and 6 Hz models. In these models, NTP-2014 showed superior efficacy to that of multiple blockbuster products, including Lyrica, Tegretol, Depakote, Lamictal, Dilantin and Topamax. Effects were dose dependent and the compound was very well tolerated. NTP-2014 also has tremendous potential in neuropathic and nociceptive pain. In two neuropathic pain models it showed greater efficacy and potency than positive controls, notably gabapentin. This included complete suppression of pain in a model of chemotherapy-induced neuropathic pain as well as a rapidly attained 75%+ pain relief of allodynia in the Chung model of neuropathic pain. NTP's compounds are quite unique as they also have strong effects in acute pain, in which gabapentin is known to demonstrate no effect. Specifically, NTP-2014 showed a rapid and dramatic reduction in pain (c. 90%) in the rodent tail flick model of acute (nociceptive) pain when delivered orally. Further, while showing comparable or superior efficacy to morphine, it had a much more favorable behavioral safety profile.

As illustrated by two sub-chronic GLP toxicology studies, in addition to multiple safety pharmacology and CNS behavioral tests, NTP-2014's safety profile is very favorable. The tox studies demonstrated excellent safety profiles in both rodent and non-rodent species. NTP-2014 also exhibits an excellent safety pharmacology profile after hERG, CYP, AMES and wide ranging receptor safety tests. Further, in oral Irwin tests (a battery of 37 CNS behavioral tests), NTP-2014 showed a very favorable profile.

NTP is led by a strong management team with significant drug development experience in the CNS space. They collectively have been involved in 15 IND and 8 NDA approvals, including the NDA filings for Sabril, which was recently approved for two epilepsy indications. The company has been funded to date by Novo A/S and Thomas, McNERNEY & Partners. Existing investors will participate in the company's Series Bequity raise, which is currently being worked on.