

# Minerva (NERV)

## NERV Finalizes Once Daily Formulation Of MIN-101 - Phase 2b To Start In 1H15

### Key Takeaway

**NERV has completed development of a once-daily dose formulation of MIN-101, its 5-HT<sub>2A</sub> and Sigma2 antagonist for the treatment of schizophrenia. The company expects to use this formulation in its Phase 2b trial, expected to begin in 1H15. NERV expects this new formulation will not only allow for more convenient dosing, but will also improve the safety profile and increase levels of an active metabolite associated with improving sleep.**

**New MIN-101 Formulation Enables Once Daily Dosing.** The new formulation of MIN-101 is designed to have an extended release profile resulting in release in the lower GI tract, allowing for once daily dosing in the morning (versus twice daily dosing as was studied in the Phase 2a). The new formulation was assessed in a single-center, open-label trial to evaluate the safety, tolerability and pharmacokinetic (PK) profiles of several formulations of single dose MIN-101. Plasma levels of MIN-101 and two main metabolites (BFB-520 and BFB-999) were assessed in 12 healthy volunteers receiving three different formulations of MIN-101. Regarding adverse events (AEs), six mild to moderate AEs occurred in five subjects including sleepiness (2), headache (3), and blurred vision (1). Notably, the AUC for the new formulation at 32 mg is comparable of that to the 32 mg daily dose of the immediate release formulation. Notably, the new formulation results in exposure to the BFB-520 metabolite causing QTc prolongation (a measure of potential cardiac toxicity) that are only 1/6<sup>th</sup> of the C<sub>max</sub> achieved by the immediate release formulation. This should result in a clinically insignificant level of QTc prolongation. Additionally, the new formulation has increased levels of BFB-999, which is associated with sleep improvements. The new formulation requires an empty stomach for dosing and must be taken two hours before food, but the company is also working on simple changes to the formulation that may allow for dosing with food in pivotal trials.

**MIN-101 Phase 2b Trial Design.** The MIN-101 Phase 2b, expected to begin in 1H15, will study 238 patients ages 18-60 (with a negative PANSS score of >20 at baseline) in 42 eastern European sites (previously was supposed to be a mix of western and eastern Europe). Patients will be dosed for three months, with a six-month open-label extension. Doses of 32 and 64 mg once daily (versus twice daily dosing of 32 mg in the Phase 2a) or placebo will be given to patients in the morning two hours prior to a meal for three months. The study is focused on enrolling patients with stable negative and positive symptoms and will wash out previous treatment for up to four weeks. That said, the company expects that only 50% of patients will be on active therapy at the time of enrollment. Additionally, the company expects around a 30% dropout rate, including patients who relapse and need rescue therapy. For negative PANSS, the study is 90% powered to show a difference of 4 points in the negative PANSS score, and the study is powered to show an 8 point improvement in the total PANSS score.

**Upcoming Milestones.** The company expects Phase 1b data for MIN-202 in secondary insomnia in January and bioavailability data for MIN-202 before YE14. Additionally, the company will have data for MIN-301 in a Parkinson's disease model in primates by YE14. Lastly, the second portion of the Phase 1 MIN-101 trial with the new formulation administered over seven days to observe the PK/PD with QTc measurements will have results in January.

**BUY**

Price target \$10.00

Price \$4.56

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## Company Description

Minerva is focused on developing neuropsychiatry drugs. Minerva's lead product candidate, MIN-101, is a 5-HT2A/Sigma2 antagonist in Phase 2 development for the treatment of schizophrenia. MIN-101 is thought to be differentiated from conventional antipsychotics as it was developed to be effective against negative symptoms. NERV is also developing MIN-117, an antagonist of 5-HT1A and 5-HTT receptors and both serotonin and dopamine, for major depressive disorder (MDD). NERV believes MIN-117 could be differentiated by fast onset of action and potential to treat patients that have failed previous lines of antidepressants. NERV has two other products in early Phase 1 or preclinical development: MIN-202, an orexin-2 antagonist for primary and secondary insomnia, and MIN-301, an ErbB4 activator for Parkinson's disease.

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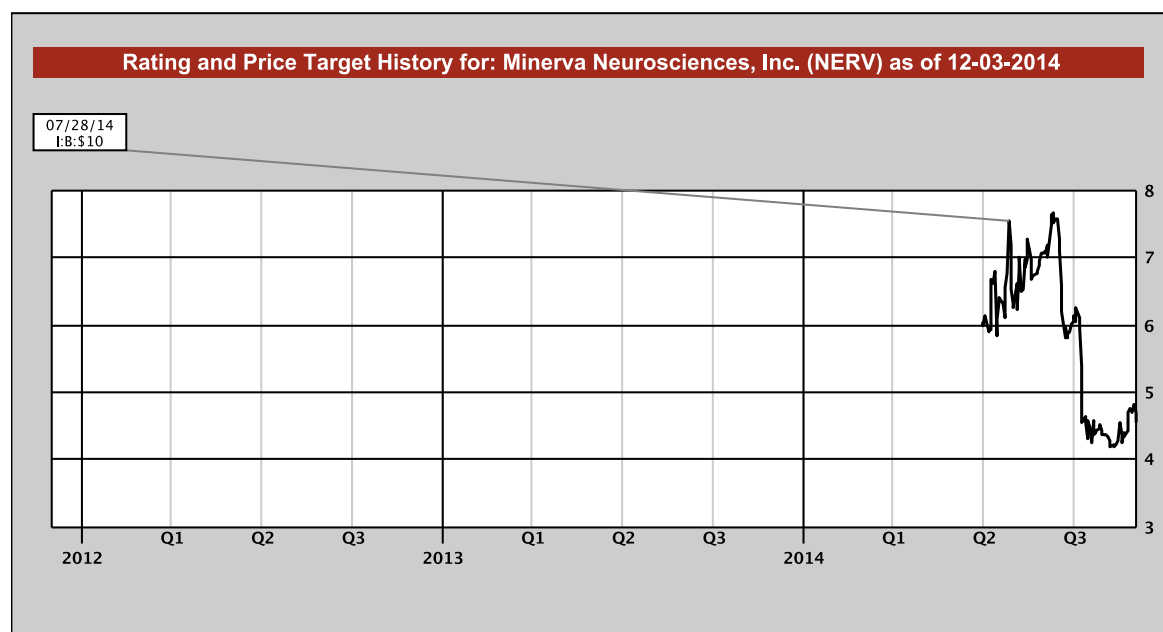
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## Other Companies Mentioned in This Report

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			Count	Percent
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