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FOR IMMEDIATE RELEASE

MINERVA NEUROSCIENCES ANNOUNCES POSITIVE DATA FROM SIX-MONTH EXTENSION OF PHASE IIB TRIAL OF MIN-101 MONOTHERAPY IN SCHIZOPHRENIA

Data show continuous improvement in negative symptoms, stable positive symptoms and extended safety profile

Waltham, MA, October 26, 2016 – Minerva Neurosciences, Inc. (NASDAQ: NERV), a clinical-stage biopharmaceutical company focused on the development of therapies to treat central nervous system (CNS) disorders, today announced data from the 24-week open-label extension of its 12-week, randomized, double-blind, placebo-controlled Phase IIb clinical trial of MIN-101 as monotherapy in patients with negative symptoms of schizophrenia. Data from the 12-week core phase of this trial were reported in May of this year.

Graphic representations of the data summarized below are available at http://ir.minervaneurosciences.com/events.cfm and contained in the Current Report on Form 8-K filed by Minerva on October 26, 2016.

"Data from the extension phase demonstrate a further and continuous improvement in negative symptoms in patients with schizophrenia, as measured by the negative symptom subscales of the Positive and Negative Syndrome Scale (PANSS)," said Dr. Remy Luthringer, president and chief executive officer of Minerva. "The longer patients were on monotherapy with MIN-101, the greater improvement they were observed to experience in their negative symptoms during the entire extension period, without evidence of reaching a plateau. We believe that such continuous improvement in symptoms over a nine month period in this patient population is unprecedented.

"The data also provide an extended safety profile for MIN-101 consistent with that observed during the core double-blind phase of the trial," said Dr. Luthringer. "MIN-101 was reported to be well tolerated at both doses over the entire 36-week duration of the study by schizophrenic patients. In addition, positive symptoms were observed to remain stable through the extension period as measured by the PANSS positive symptom subscale score. Improvements in overall schizophrenic psychopathology were also observed, as measured by the PANSS general psychopathology subscale and the total PANSS score.

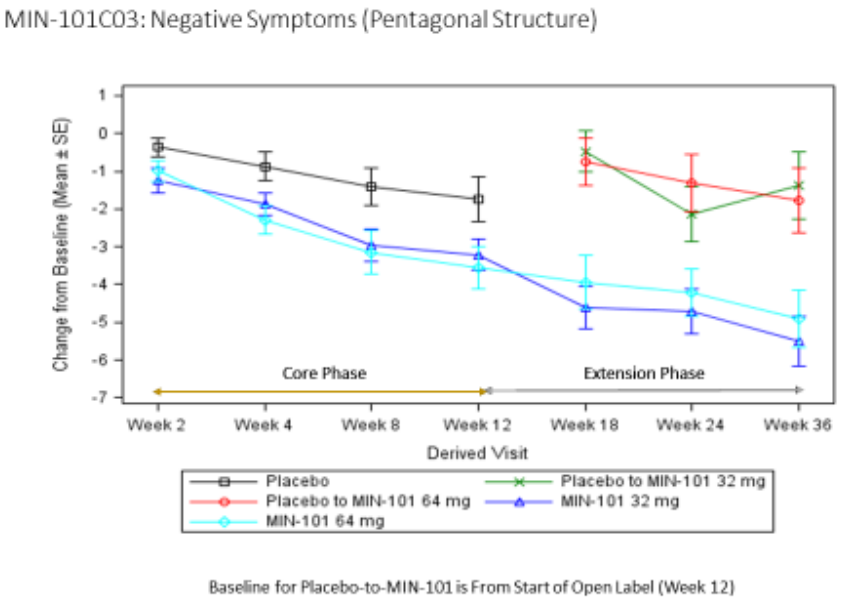
"We believe these exciting data point the way toward pivotal testing of MIN-101 as a novel, differentiated treatment for the large worldwide population of patients with schizophrenia for whom negative symptoms contribute substantially to poor quality of life and functional outcomes," said Dr. Luthringer.

Results announced earlier this year from the double-blind, placebo-controlled 12-week core phase of the trial showed that it met its primary endpoint of statistically significant improvement in negative symptoms as measured by the PANSS pentagonal structure model (PSM), and showed statistically significant benefit in multiple secondary endpoints that included general psychopathology and cognition.

Patients who completed the core phase were provided the opportunity to enter into a 24-week, open-label extension phase. During the extension phase, all patients received either 32 milligrams (mg) or 64 mg of MIN-101. Patients who received placebo in the core phase were randomized to one of these two doses at the beginning of the extension phase. Data generated during the extension period were intended to provide longer term supportive evidence of efficacy and to complement the statistically significant results obtained during the core phase.

One hundred forty-two patients from the treatment and placebo groups in the core phase entered the extension phase, with 88 patients completing the extension. Seventy patients received 32 mg and 72 patients received 64 mg during the extension.

Negative symptoms, assessed based on the PANSS PSM, were observed to continue to improve during the extension phase, as shown by a reduction from the study start for the 32 and 64 mg-treated groups of 5.5 points and 4.9 points, respectively, and by a reduction of 5.4 points and 5.3 points, respectively, in the PANSS three factors negative symptoms subscale. Reductions over time of PANSS negative PSM scores are shown in the attached graph.



Positive symptoms were observed to remain stable throughout the study, as measured by PANSS positive symptom scores. This finding is consistent with the hypothesis that MIN-101 has a direct and specific effect on negative symptoms.

General psychopathology was observed to improve during the extension phase for the 32 and 64 mg groups, as shown by reductions in the PANSS general psychopathology subscale score and total PANSS score.

MIN-101 was generally reported to be well tolerated through the entire 36-week period. QTcF, a measurement of cardiac function, was closely monitored throughout the study, and discontinuation criteria based on QTcF prolongation were incorporated in the protocol. As previously announced, two patients out of 162 who received MIN-101 in the core phase were discontinued based upon these criteria; both of these patients received the higher dose (64 mg). In the extension phase no additional patients were discontinued. The extension data also confirm that MIN-101 at the doses tested did not have an effect on extra-pyramidal symptoms (EPS), prolactin or weight gain.

About MIN-101

MIN-101 is a drug candidate with equipotent affinities for sigma 2 and 5-hydroxytryptamine-2A (5-HT_{2A}) and lower affinity at α1-adrenergic receptors. MIN-101 has no direct dopaminergic post-synaptic blocking effects, known to be involved in some side effects like extrapyramidal symptoms, sedation, prolactin increases and weight gain.

About Schizophrenia and Negative Symptoms

As described by the National Institute of Mental Health, schizophrenia is a chronic and severe disorder that affects how a person thinks, feels and acts[1]. In 2015 approximately 3.2 million people suffered from schizophrenia in the U.S., Japan and the five major European markets. Schizophrenic patients suffer from positive, negative and cognitive symptoms. Negative symptoms are disruptions to normal emotions and behaviors that may signal social withdrawal. Patients may be socially inhibited, lack the ability to begin and sustain planned activities, or speak little even when forced to interact. Negative symptoms account for a substantial portion of the morbidity associated with schizophrenia[2]. They persist chronically throughout an individual patient's lifetime and increase with severity over time.

About Minerva Neurosciences

Minerva Neurosciences, Inc. is a clinical-stage biopharmaceutical company focused on the development and commercialization of a portfolio of products to treat CNS diseases. Minerva's proprietary compounds include: MIN-101, which recently completed a Phase IIb clinical trial for schizophrenia; MIN-117, which recently completed a Phase IIa clinical trial development for MDD; MIN-202 (JNJ-42847922), which recently completed Phase IIa and Phase Ib clinical trials for insomnia and MDD, respectively; and MIN-301, in pre-clinical development for Parkinson's disease. Minerva's common stock is listed on the NASDAQ Global Market under the symbol "NERV." For more information, please visit www.minervaneurosciences.com.

Forward-Looking Safe Harbor Statement

This press release contains forward-looking statements which are subject to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995, as amended. Forward-looking statements are statements that are not historical facts, reflect management's expectations as of the date of this press release, and involve certain risks and uncertainties. Forward-looking statements include statements herein with respect to the timing and results of future clinical milestones with MIN-101; the clinical and therapeutic potential of MIN-101; our ability to successfully develop and commercialize MIN-101; and management's ability to successfully achieve its goals. These forward-looking statements are based on our current expectations and may differ materially from actual results due to a variety of factors

[1] https://www.nimh.nih.gov/health/publications/schizophrenia-booklet-12-2015/index.shtml

[2] Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition, American Psychiatric Association.

including, without limitation, whether MIN-101 will advance further in the clinical trials process and whether and when, if at all, it will receive final approval from the U.S. Food and Drug Administration or equivalent foreign regulatory agencies and for which indications; whether the results of future clinical trials of MIN-101, if any, will be consistent with the results of past clinical trials; whether MIN-101 will be successfully marketed if approved; whether our therapeutic product discovery and development efforts with MIN-101 will be successful; our ability to achieve the results contemplated by our co-development agreements; management's ability to successfully achieve its goals; our ability to raise additional capital to fund our operations on terms acceptable to us; and general economic conditions. These and other potential risks and uncertainties that could cause actual results to differ from the results predicted are more fully detailed under the caption "Risk Factors" in our filings with the Securities and Exchange Commission, including our Quarterly Report on Form 10-Q for the quarter ended June 30, 2016, filed with the Securities and Exchange Commission on August 4, 2016. Copies of reports filed with the SEC are posted on our website at www.minervaneurosciences.com. The forward-looking statements in this press release are based on information available to us as of the date hereof, and we disclaim any obligation to update any forward-looking statements, except as required by law.