



*For Immediate Release*

**ADAMAS PHARMACEUTICALS PRESENTS POSITIVE CLINICAL DATA FOR ADS-5102,  
A TREATMENT FOR LEVODOPA-INDUCED DYSKINESIA,  
AT THE WORLD PARKINSON'S CONGRESS**

*Results from the Phase 2/3 EASED Trial Demonstrate an Increase of Approximately Three Hours in  
ON Time Without Troublesome Dyskinesia for Patients Taking ADS-5102 Compared to Placebo*

**MONTREAL, CANADA and EMERYVILLE, CA, October 2, 2013** – Adamas Pharmaceuticals, Inc. presented positive results today from the Phase 2/3 EASED™ clinical trial of ADS-5102 at the World Parkinson's Congress. ADS-5102 is Adamas' proprietary long-acting capsule formulation of amantadine HCl in development for the treatment of levodopa-induced dyskinesia (LID) in Parkinson's disease (PD) patients. ADS-5102 met its primary endpoint in the Phase 2/3 clinical trial and demonstrated statistically significant improvements in a number of key assessments of LID.

“We are extremely pleased with the positive results achieved in our Phase 2/3 EASED trial, and the magnitude of the change in ON time without troublesome dyskinesia in Parkinson's patients suffering from LID. Levodopa-induced dyskinesia is one of the most difficult challenges facing patients with PD, and there are no FDA-approved drug treatments available,” said Gregory T. Went, Ph.D., Chief Executive Officer of Adamas. “ADS-5102 reduced both the duration and severity of dyskinesia among PD patients with statistical significance, providing an average of 11.5 hours during the day of ON time without troublesome dyskinesias as compared to 8 hours on placebo. The encouraging data from this trial indicate that ADS-5102 has the potential to positively impact the lives of PD patients and we are moving forward on the remaining NDA-enabling activities.”

The Phase 2/3 EASED clinical trial was designed to investigate the safety and efficacy of three dose levels of ADS-5102 administered once nightly at bedtime for the treatment of LID in PD. The study enrolled 83 subjects who were randomized in a 1:1:1:1 ratio to the four treatment groups: placebo, 260 mg ADS-5102, 340 mg ADS-5102 and 420 mg ADS-5102. Both the 340 mg and 420 mg ADS-5102 dose levels significantly reduced LID as measured by the change in Unified Dyskinesia Rating Scale (UDysRS) total score over eight weeks versus placebo, meeting the primary endpoint for the clinical study. Of note, the reduction in LID was seen at two weeks following the first dose of study medication. At week 8, the ON time without troublesome dyskinesia as measured by patient diaries was 11.0 hours, 11.5 hours, and 12.1 hours for the 260 mg, 340 mg, and 420 mg dose levels, respectively, compared to 8.0 hours for placebo. These findings were statistically significant, demonstrating an increase of about 3 hours over placebo compared to baseline values. ADS-5102 also demonstrated statistically significant functional improvement in dyskinesia as assessed by the MDS-Unified Parkinson's Disease Rating Scale (MDS-UPDRS) part IV, a measure of the degree of impact that dyskinesia has on the patient's daily function in terms of activities and social interactions.

Treatment with ADS-5102 did not result in worsening of PD, as measured by the MDS-UPDRS combined score (Parts I, II and III). The adverse events reported in this study were typically mild to moderate in severity and consistent with Parkinson's disease and the known amantadine safety profile. There was no difference from placebo in the incidence of sleep-related adverse events.

Data from the Phase 2/3 study were presented today in a poster entitled “Safety and Efficacy of ADS-5102 in Levodopa-Induced Dyskinesia (EASED Study)” (Abstract #1311.00) at 11:30 am ET at the World Parkinson's Congress in Montreal, Canada. The poster has also been selected for a “Guided Poster

Tour” between 5:15-6:45 pm ET. Additional details of the EASED study results may be found on the Adamas website.

### **About the EASED™ Study**

The EASED study was a randomized, double-blind, placebo-controlled clinical trial that enrolled 83 Parkinson's disease subjects at 31 study sites in the US. The study's primary efficacy analysis compared ADS-5102 to placebo for reduction in LID over eight weeks as assessed by the Unified Dyskinesia Rating Scale (UDysRS). Secondary efficacy outcome measures included changes in a standardized PD diary, including: ON time without troublesome dyskinesia; overall PD clinical status as assessed by the MDS-Unified Parkinson's Disease Rating Scale (MDS-UPDRS); and fatigue measured using the Fatigue Severity Scale. The EASED trial also included an assessment of dose response for ADS-5102. The study enrolled male and female subjects aged 30 to 85 years who had Parkinson's disease and were experiencing troublesome LID. Study participants were randomized to receive 260 mg, 340 mg, or 420 mg doses of ADS-5102 or placebo once-nightly for eight weeks with a two-week safety follow-up. In order to participate in the study, subjects had to have a score of at least 2 on Part IV, item 4.2 (functional impact of dyskinesia) of the MDS-UPDRS at screening and Day 1, and be experiencing at least two 30 minute intervals of ON time with troublesome dyskinesia between the hours of 9 am-4 pm. Safety measures included adverse events and routine safety laboratory tests that were reviewed during the study by an independent data monitoring committee.

### **About ADS-5102 (Nurelin™)**

ADS-5102 is a proprietary, investigational, long-acting formulation of amantadine HCl in development for the treatment of central nervous system (CNS) disorders, including LID in Parkinson's disease. Administered once-nightly at bedtime, ADS-5102 provides a slow initial increase in amantadine plasma concentration, resulting in high plasma concentration during daytime hours when LID can be troublesome and low concentration overnight. Adamas is investigating whether the novel pharmacokinetic profile and low overnight amantadine plasma concentration may reduce the insomnia, sleep disturbances, and vivid dreams occasionally associated with amantadine. ADS-5102 is being investigated in clinical studies at once-nightly dose strengths 1.3 to 2.1 fold greater than the 100 mg twice-daily dose typically used with immediate-release amantadine.

### **About Levodopa-Induced Dyskinesia**

Levodopa (also known as L-dopa) remains the gold standard for the treatment of the debilitating motor symptoms of Parkinson's disease. An unfortunate side effect of prolonged treatment with levodopa is the occurrence of levodopa-induced dyskinesia (LID). LID is characterized by involuntary non-purposeful movements of the head and neck, arms, legs or trunk. With continued levodopa treatment, and as PD progresses, LID can become severely disabling and has been associated with a decrease in the quality of life for Parkinson's patients.<sup>1</sup> LID affects approximately 30 percent of patients taking levodopa<sup>2</sup>, and is particularly problematic among young-onset Parkinson's disease patients. There are currently no medications approved for the treatment of LID. Reducing LID and improving ON time without troublesome dyskinesia are among the greatest patient unmet medical needs in the treatment of advanced Parkinson's disease.<sup>3</sup>

### **About Adamas Pharmaceuticals, Inc.**

Adamas Pharmaceuticals is dedicated to improving the lives of those affected by central nervous system (CNS) disorders by optimizing the pharmacokinetic profiles of approved drugs to create novel treatments for use alone and as components of fixed-dose combination products. The Company is currently advancing a pipeline of aminoadamantane-based drug candidates for the treatment of Parkinson's disease, Alzheimer's disease, and other CNS disorders. The Phase 2/3 EASED study investigating ADS-5102 (amantadine HCl ER) for the treatment of levodopa-induced dyskinesia in Parkinson's disease has recently been completed. MDX-8704 (memantine HCl ER/donepezil, US) and ADS-8704 (memantine

HCl ER/donepezil, ex-US) are fixed-dose combination products in late-stage investigation for the treatment of dementia associated with Alzheimer's disease. In November 2012, Adamas entered into an agreement with Forest Laboratories, Inc. for the development and commercialization of MDX-8704 in the United States. Adamas plans to advance its product candidates through approval and commercialize products in the United States through a specialty CNS sales force. For more information about Adamas, please visit [www.adamaspharma.com](http://www.adamaspharma.com).

- 1) Encarnacion, E. V., Hauser, R. A., "Levodopa-induced dyskinesias in Parkinson's disease: etiology, impact on quality of life, and treatments." *Eur Neurol* , 2008. 60(2): 57-66
- 2) DATATOP: A Multicenter Controlled Clinical Trial in Early Parkinson's Disease. *Archives of Neurology*, 1989. 46(10): p. 1052-60
- 3) The Michael J. Fox Foundation ([www.michaeljfox.org](http://www.michaeljfox.org))

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