



## **ACADIA Pharmaceuticals Presents Caregiver Burden Data at the International Congress of Non-Motor Dysfunctions in Parkinson's Disease and Related Disorders**

December 8, 2014

### **Data Demonstrate a Decreased Burden Among Caregivers of Patients with Parkinson's Disease Psychosis Treated with NUPLAZID™ (Pimavanserin)**

SAN DIEGO--(BUSINESS WIRE)--Dec. 8, 2014-- ACADIA Pharmaceuticals Inc. (NASDAQ: ACAD) today announced the presentation of caregiver burden data from its Phase III program with NUPLAZID™ (pimavanserin) for Parkinson's disease psychosis (PDP) at the 10<sup>th</sup> Annual International Congress of Non-Motor Dysfunctions in Parkinson's Disease and Related Disorders held from December 5-7 in Nice, France. Data from an analysis of Phase III studies in patients with PDP showed that treatment with NUPLAZID reduced caregiver burden compared to PDP patients on placebo.

"The symptoms of Parkinson's disease psychosis are a significant cause of distress to patients and their caregivers, and are associated with greater caregiver burden, nursing home placement, functional impairment and increased mortality," said Dag Aarsland, M.D., Professor of Clinical Dementia Research at the Department of Neurobiology, Care Sciences and Society, Karolinska Institute. "The benefit to caregivers observed with NUPLAZID may translate into a reduced or delayed nursing home admission for patients with Parkinson's disease psychosis."

In a poster presentation titled "Decreased Burden Among Caregivers of People with Parkinson's Disease Psychosis Treated with Pimavanserin, a Selective 5-HT<sub>2A</sub> Inverse Agonist," an integrated analysis of Phase III clinical trials with NUPLAZID in PDP was performed on caregiver burden among 268 caregivers of PDP patients from North America. Caregiver burden was assessed using the Zarit 22-item Caregiver Burden Scale. The scale was completed by the caregiver to provide a quantitative assessment of burden associated with the patient's functional behavioral impairments, the circumstances of at-home care, as well as the caregiver's health, social life and interpersonal relations. The objective of the analysis was to explore the effects of NUPLAZID, which has shown antipsychotic efficacy and non-sedative sleep benefits, on perceived burden in caregivers of people with PDP.

In 6-week randomized placebo-controlled Phase III trials, NUPLAZID demonstrated a significant improvement in caregiver burden compared to placebo ( $p=0.001$ ), as assessed by the Caregiver Burden Scale. NUPLAZID showed the strongest improvement on the Life-Upset subscale, which evaluates strains on personal/life relationships and effects on caregiver health and anxiety over care. Although no single item drove the Caregiver Burden Scale, the strongest benefit of NUPLAZID was observed on Item 16 of the Responsibility subscale ( $p<0.001$ ), which asked the caregiver about the inability to take care of the relative for much longer. In subgroup analyses, caregiver benefit with NUPLAZID was observed to be greater for spouses than non-spouses and for caregivers with more severe burden at baseline.

Additionally, an interim analysis performed on the open-label safety extension study in patients with PDP showed that caregivers of NUPLAZID-treated patients demonstrated reduced caregiver burden that persisted through 9 months, as assessed by the Caregiver Burden Scale.

#### *About NUPLAZID™ (pimavanserin)*

NUPLAZID is ACADIA's proprietary small molecule that is a selective serotonin inverse agonist preferentially targeting 5-HT<sub>2A</sub> receptors that play an important role in psychosis. ACADIA has reported positive Phase III trial results with NUPLAZID, which has the potential to be the first drug approved in the United States for psychosis associated with Parkinson's disease. NUPLAZID is administered orally once-a-day. ACADIA discovered NUPLAZID and holds worldwide rights to this new chemical entity. The trade name NUPLAZID has been provisionally accepted by the FDA.

#### *About Parkinson's Disease Psychosis*

According to the National Parkinson Foundation, about one million people in the United States and from four to six million people worldwide suffer from Parkinson's disease. Parkinson's disease psychosis (PDP) is a debilitating disorder that occurs in an estimated 40 percent of Parkinson's patients. Currently, there is no FDA-approved therapy to treat PDP in the United States. PDP, which commonly consists of visual hallucinations and delusions, substantially contributes to the burden of Parkinson's disease and deeply affects the quality of life of patients. PDP also is associated with increased caregiver stress and burden, nursing home placement, and increased morbidity and mortality. There is a large unmet medical need for new therapies that will effectively treat PDP without compromising motor control in patients with Parkinson's disease.

#### *About ACADIA Pharmaceuticals*

ACADIA is a biopharmaceutical company focused on the development and commercialization of innovative medicines to address unmet medical needs in neurological and related central nervous system disorders. ACADIA has a pipeline of product candidates led by NUPLAZID™ (pimavanserin), for which we have reported positive Phase III trial results in Parkinson's disease psychosis and which has the potential to be the first drug approved in the United States for this disorder. Pimavanserin is also in Phase II development for Alzheimer's disease psychosis and has successfully completed a Phase II trial in schizophrenia. ACADIA also has clinical-stage programs for chronic pain and glaucoma in collaboration with Allergan, Inc. and two preclinical programs directed at Parkinson's disease and other neurological disorders. All product candidates are small molecules that emanate from internal discoveries. ACADIA maintains a website at [www.acadia-pharm.com](http://www.acadia-pharm.com) to which we regularly post copies of our press releases as well as additional information and through which interested parties can subscribe to receive e-mail alerts.

#### *Forward-Looking Statements*

Statements in this press release that are not strictly historical in nature are forward-looking statements. These statements include but are not limited to statements related to the progress and timing of ACADIA's drug discovery and development programs, either alone or with a partner, including clinical trials, the benefits to be derived from ACADIA's product candidates, in each case including NUPLAZID (pimavanserin), and whether a reduction in

caregiver burden would translate into a reduced or delayed nursing home admission for patients with Parkinson's disease. These statements are only predictions based on current information and expectations and involve a number of risks and uncertainties. Actual events or results may differ materially from those projected in any of such statements due to various factors, including the risks and uncertainties inherent in drug discovery, development and commercialization, and collaborations with others, and the fact that past results of clinical trials may not be indicative of future trial results. For a discussion of these and other factors, please refer to ACADIA's annual report on Form 10-K for the year ended December 31, 2013 as well as ACADIA's subsequent filings with the Securities and Exchange Commission. You are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date hereof. This caution is made under the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. All forward-looking statements are qualified in their entirety by this cautionary statement and ACADIA undertakes no obligation to revise or update this press release to reflect events or circumstances after the date hereof, except as required by law.

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