



PRESS RELEASE

## Addex' ADX10059 has potential for Parkinson's disease levodopa induced dyskinesia (PD-LID)

**Geneva, Switzerland, 14 September 2009** – Allosteric modulation company Addex Pharmaceuticals (SIX:ADXN) reported today that its lead product, ADX10059, which is nearing completion of Phase IIb testing in gastroesophageal reflux disease (GERD) and migraine prevention, also has demonstrated significant potential in a non-human primate model of Parkinson's disease levodopa induced dyskinesia (PD-LID).

ADX10059 is an allosteric inhibitor – a negative allosteric modulator (NAM) – of a glutamate receptor subtype called metabotropic glutamate receptor 5 (mGluR5). Phase IIb data are expected in the fourth quarter of 2009 for GERD (e.g. heartburn) and the first quarter of 2010 for migraine prevention.

In a recently completed study using the "MPTP" primate model, all doses of ADX10059 abolished levodopa induced dyskinesia in the first hour after levodopa administration. There was no adverse effect on Parkinsonian disability scoring. The 10mg/kg and 30mg/kg doses of ADX10059 significantly reduced dyskinesia ( $p < 0.05$ ) in the first two hours after levodopa dosing.

Addex also reported during its July R&D Day that in rats ADX10059 showed a dose dependent effect in reducing catalepsy induced by haloperidol, a rodent model of Parkinson's disease.

**PD-LID** currently has no approved therapy. It is a complication caused by dopamine replacement (i.e. levodopa) therapy and characterized by a variety of hyperkinetic movements. Most PD patients develop LID after receiving levodopa for several years. Currently there are an estimated 1.2 million patients with PD-LID in the U.S. PD is a degenerative disease of the brain that often impairs motor skills, speech, and other functions. It is estimated that 60,000 new cases are diagnosed each year in the U.S., where more than 1.5 million people currently have PD. While the condition usually develops after the age of 65, 15% of those diagnosed are under 50. PD affects both men and women in almost equal numbers.

The rationale for using mGluR5 inhibition in PD is as follows. An imbalance of neurotransmitters resulting from the loss of dopamine producing cells leads to excess glutamatergic stimulation in the striatopallidal pathway. Inhibition of glutamate stimulation in this pathway is believed to be important for anti-Parkinsonian effects. mGluR5 are found abundantly in the striatum and are implicated in the excess glutamate activity in Parkinson's Disease. Blockade of mGluR5 has been shown to have anti-PD effects in a variety of animal models.

Data from Addex and other researchers show that mGluR5 inhibition has therapeutic potential in multiple indications. Addex has prioritized development in GERD and migraine; others are pursuing PD-LID, Fragile X syndrome and neuropathic pain.

**Addex Pharmaceuticals** ([www.addexpharma.com](http://www.addexpharma.com)) discovers and develops allosteric modulators for human health. Allosteric modulators are a different kind of orally available small molecule therapeutic agent, which we believe will offer a competitive advantage over classical drugs. Our lead allosteric modulator product, ADX10059, has achieved clinical proof of concept and is in Phase IIb testing for the treatment of GERD and, separately, migraine headache. ADX10059 is a first-in-class mGluR5 inhibitor, a therapeutic strategy that also is being pursued in multiple indications by large pharma competitors.

Our products and technology already have proven their value through our relationships with four of the top 10 pharmaceutical companies in the world. Specifically, under an agreement with Ortho-McNeil-Janssen Inc., a Johnson & Johnson company, ADX71149, a positive allosteric modulator (PAM) of mGluR2, is undergoing Phase I clinical testing and has potential for treatment of schizophrenia and anxiety. Under two separate agreements with Merck & Co., Inc., we are developing PAMs of mGluR4 and mGluR5 as drugs to treat Parkinson's disease and schizophrenia, respectively. In addition, GlaxoSmithKline and Roche have made equity investments in Addex.

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