

IRLAB's clinical drug candidate mesdopetam published in *JPET*

IRLAB announced today that a scientific paper reporting the preclinical pharmacology of mesdopetam (IRL790), a dopamine D3 receptor antagonist for the treatment of motor and psychiatric complications in Parkinson's disease, is now published in the *Journal of Pharmacology and Experimental Therapeutics, JPET*. An additional paper is also published in *JPET*, indicating that mesdopetam could have beneficial effects on neurotrophic factors important for preserved synaptic function and nerve cell signaling.

"The two papers now published in *JPET* add to the growing body of data supporting mesdopetam as a very promising drug candidate for the treatment of both motor and psychiatric complications in Parkinson's disease. Furthermore, the study adds to the increasing number of scientific publications indicating a significant role for the dopamine D3 receptor as a drug target in Parkinson's disease", says Susanna Waters, M.D., Ph.D, Director of Biology & Biostatistics at IRLAB.

JPET, The Journal of Pharmacology and Experimental Therapeutics, is a highly ranked international research journal in the field of pharmacology. The journal is published by The American Society for Pharmacology and Experimental Therapeutics.

Mesdopetam is a drug candidate in clinical Phase II and is being developed by IRLAB Therapeutics for the treatment of levodopa induced dyskinesia in Parkinson's disease (PD-LIDs) and Parkinson's disease psychosis (PD-P).

The publication that reports on preclinical pharmacology demonstrates that mesdopetam is active in models of levodopa-induced dyskinesias (LIDs) and in models of psychosis. This effect profile is attributed to antagonism at Dopamine D3 receptors, supported by *in vitro* studies and molecular modelling results.

The publication by scientists affiliated at The Centre for Molecular Medicine (CMM), Department of Clinical Neuroscience, Karolinska Institute, Stockholm, Sweden, reports on the effects of mesdopetam on protein levels and phosphorylation states of proteins and concludes that mesdopetam could have positive effects on nerve cell proteins important for synaptic plasticity and nerve cell signaling.

The two papers were published online as part of *JPET Fast Forward*, which contains papers in manuscript form that have been accepted and published in *JPET* but have not been copyedited and have not been assigned to an issue of the journal. Copyediting, including graphics, may lead to some differences between the Fast Forward version and the final version.

Publication: Waters, S. *et al.* Preclinical pharmacology of [2-(3-fluoro-5-methanesulfonylphenoxy)ethyl](propyl)amine (IRL790), a novel dopamine transmission modulator for the treatment of motor and psychiatric complications in Parkinson's disease. *Journal of Pharmacology and Experimental Therapeutics*, DOI: <https://doi.org/10.1124/jpet.119.264226>

Publication: Becanovic, K. *et al.* Effects of a novel psychomotor stabilizer, IRL790, on biochemical measures of synaptic markers and neurotransmission. *Journal of Pharmacology and Experimental Therapeutics*, DOI: <https://doi.org/10.1124/jpet.119.264754>

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About IRLAB

IRLAB is a Swedish research and development company that focuses on developing novel treatments in Parkinson's disease. The company's most advanced candidates, mesdopetam (IRL790) and IRL752, both of which completed Phase IIa-studies, intends to treat some of the most difficult symptoms related to Parkinson's disease: involuntary movements (PD-LIDs), psychosis (PD-P) and symptoms linked to cognitive decline such as impaired balance and increased risk of falls (PD-Falls). Through the proprietary research platform, ISP (The Integrative Screening Process), IRLAB discovers and develops drug candidates for central nervous system (CNS) related disorders where large and growing medical need exist. In addition to the clinical candidates, the ISP platform has also generated several CNS programs that are now in preclinical phase. IRLAB's Certified Adviser on Nasdaq First North Premier Growth Market is FNCA Sweden AB, info@fnca.se, +46 (0)8528 00 399. More information on www.irlab.se.