Press release
Gothenburg, July 9, 2020

IRLAB's clinical drug candidate IRL752 published in *JPET*

IRLAB announced today that a scientific paper reporting the distinctive pharmacological profile of IRL752, in development for the treatment of impaired balance and falls in Parkinson's disease, is accepted and published online in the *Journal of Pharmacology and Experimental Therapeutics, JPET*.

"This paper was the result of a successful cross-disciplinary collaboration between scientists at IRLAB and an academic research group in the UK. To share our research within an international network and explore the potential of our drug candidate in a renowned independent lab, specialized in studies of cognitive processes, is significant for us. I would also like to emphasize the importance of these scientific findings for the continued clinical development and, ultimately, the change we hope IRL752 will bring to affected patients and their caregivers," says Stephan Hjorth, Ph.D., Prof., senior scientific advisor 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 (ASPET).

IRL752 is a drug candidate in clinical Phase II and is in development by IRLAB for the treatment of impaired balance (postural dysfunction) and falls in Parkinson's disease (PD-Falls). The paper reports the pharmacological profile of IRL752, characterized by facilitatory impact on cortical noradrenaline, dopamine and acetylcholine neurotransmission, accompanied by improved cognitive functions. This pharmacological profile is in line with the potential clinical usefulness of IRL752 in conditions where cortical neurotransmission may be dysregulated, such as the axial motor and cognitive deficits associated with impaired balance and falls in Parkinson's Disease. The effect profile of IRL752 was characterized through in vivo studies, assessing effects on behavior, neurotransmission and gene expression, as well as in vitro assays investigating receptor interactions.

The paper was 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.

Paper: Hjorth, S. *et al.* (3S)-3-(2,3-difluorophenyl)-3-methoxypyrrolidine (IRL752) – a novel cortical-preferring catecholamine transmission- and cognition-promoting agent. *Journal of Pharmacology and Experimental Therapeutics*, DOI: 10.1124/jpet.120.000037.

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About IRL752
IRL752, one of IRLAB's two drug candidates in Phase II, is being developed for the treatment of impaired balance (postural dysfunction) and falls in Parkinson's disease. The results from the clinical Phase IIa study indicate that IRL752 has the potential to improve balance and reduce the risk of falls. IRL752 has the ability to increase the levels of the neurotransmitters norepinephrine and dopamine in the frontal cortex and activate

specific genes involved in nerve cell connections. In clinical research, it has been shown that the neurotransmitters noradrenaline and dopamine are decreased in the frontal cortex in Parkinson's disease. The effects of this reduction could be counteracted by treatment with IRL752 and then lead to improvement of balance, cognitive and psychiatric symptoms for these patients. A Phase IIb study with the drug candidate is planned to begin in 2020 to evaluate the effects of IRL752 on fall rate as compared to placebo.

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.