IRLAB highlights new preclinical data indicating Phase IIb drug candidate mesdopetam's powerful efficacy in Parkinson's psychosis and PD-LIDs

Gothenburg, Sweden, November 15, 2022 – IRLAB Therapeutics AB (Nasdaq Stockholm: IRLAB A), a clinical-stage biopharmaceutical company discovering and developing novel treatments for the most troublesome symptoms of Parkinson's disease, today announced that new preclinical data has been published providing insight on the mechanisms underlying antipsychotic and antidyskinetic efficacy of drug candidate mesdopetam (IRL790) in PD-P and PD-LIDs. The research was conducted by an independent academic research group led by Prof. Per Petersson. The findings will be presented in two scientific posters at the premier congress Neuroscience 2022 hosted by Society for Neuroscience in San Diego, CA, on November 12-16.

The authors present in the first poster a new method to characterize brain states associated with Parkinson's psychosis (PD-P), based on the characterization of spontaneous motor behavior and associated brain activity patterns in parkinsonian rats implanted with multi-electrode arrays. The results suggest that high-frequency oscillations (HFOs) in cognitive limbic-cortico-basal ganglia circuits may be a useful biomarker for the psychotic state. Mesdopetam can reverse these HFOs via a distinct mechanism and with better efficacy than the recently approved PD-P treatment pimavanserin. The abstract is titled 'Behavioral and electrophysiological characterization of antipsychotic treatments in a rodent model of Parkinson's disease psychosis'.

The second poster shows data indicating that mesdopetam and amantadine have comparable antidyskinetic effects in behavioral assessments of levodopa-induced dyskinesia (LID) that are accompanied by a suppression of aberrant cortical narrow-band gamma oscillations associated with LIDs. The results further corroborate that mesdopetam exerts its antidyskinetic effects in translational models taking both brain states and behavior into account. This abstract is titled 'Behavioral and electrophysiological characterization of the antidyskinetic treatments in a rodent model of PD-LID'.

"We are very encouraged by the development of new methodology to evaluate brain states, helpful in understanding the psychosis mechanism in Parkinson's, and to develop biomarkers that could support discovery of new better treatments in Parkinson's, such as mesdopetam. The new data further provides proof points showing how mesdopetam differentiates from current therapies

in Parkinson's," said Nicholas Waters, EVP and Head of R&D at IRLAB. "Full credit to the excellent work of Prof. Per Petersson and his research group, who has conducted the research, and to Vinnova for supporting these important studies."

Neuroscience 2022 is the premier global neuroscience event and is organized by the Society for Neuroscience (SfN). Each year, tens of thousands of neuroscientists from around the world congregate to discover new ideas, share their research, and experience the best the field has to offer.

Find the poster presentations at the congress:

Title: Behavioral and electrophysiological characterization of antipsychotic treatments in a rodent model of Parkinson's disease psychosis'
Authors: T. Loredan Stan, A. Ronaghi, S. Barrientos, P. Halje, L. Censoni, E. Garro Martínez, E. Malinina, K. Sahlholm, P. Petersson
Presenter: Dr. L. Censoni, Integrative Neurophysiology Unit, Dept of Experimental Medical Science, Lund University, Lund, Sweden
Presentation time: November 15, 2022, 8:00 AM - 12:00 PM PST
Presentation number: E61
Session title: Parkinson's Disease Animal Models

Title: Behavioral and electrophysiological characterization of the antidyskinetic treatments in a rodent model of PD-LID
Authors: *A. Ronaghi, T. Loredan Stan, S. Barrientos Baeza, S. Sulis Sato, E. Malinina, L. Censoni, P. Halje, P. Petersson
Presenter: Dr. A. Ronaghi, Integrative Medicinal Biology (IMB), Umeå Univ., Per Petersson lab, Umeå, Sweden
Presentation time: November 15, 2022, 8:00 AM - 12:00 PM PST
Presentation number: E62
Session title: Parkinson's Disease Animal Models

The posters will, after presentation, be available on IRLAB's webpage under the menu Research platform > Scientific publications (www.irlab.se/research-platform/scientific-publications).

For more information

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About IRLAB

IRLAB discovers and develops novel treatments of Parkinson's disease and other CNS disorders. The company's most advanced drug candidates, mesdopetam (IRL790) and pirepemat (IRL752), are in Phase IIb and are designed to treat some of the most difficult symptoms related to Parkinson's . In 2021, Ipsen, a specialty pharma company, acquired exclusive global rights to the development and commercialization of mesdopetam.

IRLAB has discovered and generated all its drug candidates and continues to discover innovative drug candidates for the treatment of CNS disorders through its proprietary systems biology-based Integrative Screening Process (ISP) research platform. In addition to IRLAB's strong clinical pipeline, the company is also progressing two preclinical programs, IRL942 and IRL757, towards Phase I studies. IRLAB is listed on Nasdaq Stockholm. More information on www.irlab.se.

Attachments

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