Biohaven Enrolls First Patient into Phase 2/3 Trial in Early Parkinson's Disease, Targeting Neuroinflammation with Novel Brain-Penetrant TYK2/JAK1 Inhibitor

May 29, 2025

- *BHV-8000 is a first-in-clinic, brain-penetrant, and selective inhibitor of TYK2 and JAK1 kinases — a novel investigational therapy with the potential to treat the neuroinflammation and immune dysregulation that drives disease progression in Parkinson's disease (PD)*
- *Currently, there are no approved disease-modifying therapies for the more than 10 million people living with PD*

NEW HAVEN, Conn., May 29, 2025 /PRNewswire/ -- Biohaven Ltd. (NYSE: BHVN) ("Biohaven"), a global clinical-stage biopharmaceutical company focused on the discovery, development, and commercialization of life-changing therapies to treat a broad range of rare and common diseases, announced today that it has initiated a global Phase 2/3 study of the first-in-clinic, orally-administered, brain-penetrant, and highly selective TYK2/JAK1 inhibitor, BHV-8000, for the treatment of early Parkinson's disease (PD).

Pete Ackerman, M.D., Senior Vice President of Clinical Development at Biohaven stated, "We are proud to announce the initiation of our pivotal clinical trial in early Parkinson's disease for BHV-8000, a novel therapy with broad potential for treating neuroinflammatory and neurodegenerative diseases. There are currently no available disease-modifying therapies to treat Parkinson's disease – a devastating and relentlessly progressive neurological disorder whose global prevalence is expected to double by 2050. Collectively, genetic, epidemiological, preclinical, and emerging clinical data demonstrate the key role immune dysregulation plays in PD pathophysiology. As a brain-penetrant, selective inhibitor of TYK2 and JAK1, BHV-8000 has the potential to modulate critical inflammatory pathways, in the periphery and in the CNS, that results in neuronal loss and functional decline in people living with PD."

The pivotal Phase 2/3 study is a randomized, double-blind, placebo-controlled trial assessing the efficacy and safety of BHV-8000 at two dose levels (10 mg and 20 mg) relative to placebo in people living with early PD. The innovative trial design includes a time-to-event primary endpoint analysis based on significant change in the MDS-UPDRS Part II, which is accepted by the US Food and Drug Administration (FDA) to support registration. The study also includes the utilization of first-in-clinic Parkinson's disease composite scales (PARCOMS), which can potentially improve the sensitivity of identifying changes in function that are meaningful to people living with early PD. The trial will enroll 550 patients at approximately 185 sites across 13 countries including the United States, Canada, and 11 European nations. Additional information can be found at www.clinicaltrials.gov/study/NCT06976268.

Stuart Isaacson, MD, Director and Founder of the Parkinson's Disease and Movement Disorders Center of Boca Raton, Medical Director of the Parkinson's Research and Education Foundation, and Principal Investigator in the BHV8000-301 trial stated, "Biohaven is developing BHV-8000, a novel investigational highly potent, brain-penetrant, and selective dual TYK2/JAK1 inhibitor for the treatment of neuroinflammatory and

neurodegenerative diseases. Targeted, small-molecule therapies that inhibit TYK2 and other JAKs have demonstrated robust efficacy in autoimmune, dermatologic, and gastrointestinal disorders. In addition to their well-known roles in inflammatory and autoimmune diseases, TYK2 and JAK1 are also implicated in driving neuroinflammation and neurodegeneration via their effects in microglia, the major immune cell type of the CNS. A brain penetrant inhibitor of TYK2/JAK1, such as BHV-8000, has the potential to leverage these validated immune targets to treat brain disorders. Importantly, a highly selective dual TYK2/JAK1 inhibitor may optimize the potential for efficacy and reduce the risk of severe toxicities associated with JAK2 and/or JAK3 inhibition. We are delighted to begin enrollment in this trial for people living with Parkinson's disease."

In the Phase 1 clinical program, BHV-8000 has been safe and well-tolerated, with no reported serious adverse events and no clinically meaningful adverse trends in laboratory values. BHV-8000 has demonstrated target engagement with significant reductions in TYK2- and JAK-1-related inflammatory biomarkers (e.g., IP-10, hsCRP, IFN-gamma) relative to placebo. In addition, BHV-8000 pharmacokinetics demonstrated robust brain penetration with ~50% plasma exposure available as unbound drug in the CNS, providing sustained coverage above TYK2 and JAK1 EC50s at clinical doses.

Dr. Ackerman added, "We look forward to working closely with the global Parkinson's community and regulatory agencies, including the FDA who provided key input on the study's time-to-event endpoint, as we strive to deliver a transformative therapy where none currently exists. For far too long, patients and families affected by progressive neurodegenerative diseases have had few, if any, effective treatments to change the disease trajectory. Today marks a significant milestone in our commitment to advancing science and bringing hope to those in urgent need."

About BHV-8000
BHV-8000 is a first-in-clinic, brain-penetrant, selective TYK2/JAK1 inhibitor being developed for the treatment of neuroinflammatory conditions including early Parkinson's disease, Alzheimer's disease, multiple sclerosis, and the prevention of amyloid-related imaging abnormalities (ARIA) in individuals initiating anti-amyloid therapies. As a dual inhibitor of TYK2 and JAK1, BHV-8000 has the potential to target key signaling pathways associated with the widespread immune dysregulation that drives progression of neurodegenerative disease (see Figure 1). Inhibition of TYK2 and JAK1 has been shown to block activation of inflammatory T cells (including Th17 T cells) in the periphery, glial cells in the CNS, and neuronal injury. BHV-8000's selectivity avoids the safety liabilities of JAK2 and JAK3 inhibition. In healthy adults, BHV-8000 has been well-tolerated with no clinically significant safety findings.

About Biohaven
Biohaven is a biopharmaceutical company focused on the discovery, development, and commercialization of life-changing treatments in key therapeutic areas, including immunology, neuroscience, and oncology. Biohaven is advancing its innovative portfolio of therapeutics, leveraging its proven drug development experience and multiple proprietary drug development platforms. Biohaven's extensive clinical and preclinical programs include Kv7 ion channel modulation for epilepsy and mood disorders; MoDE™ and TRAP™ extracellular protein degradation for immunological diseases; TRPM3 antagonism for migraine and neuropathic pain; TYK2/JAK1 inhibition for neuroinflammatory disorders; glutamate modulation for OCD and SCA; myostatin inhibition for neuromuscular and metabolic diseases, including SMA and obesity; antibody recruiting bispecific molecules; and antibody drug conjugates for cancer. For more information, visit www.biohaven.com.

Forward-looking Statements
This news release includes forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995, including statements regarding the expected timing and amounts of funding under the NPA. The use of certain words, including "continue", "plan", "will", "believe", "may", "expect", "anticipate", "potential first-in-class" and similar expressions, is intended to identify forward-looking statements. Investors are cautioned that any forward-looking statements, including statements regarding the future development, timing and potential marketing approval and commercialization of development candidates, are not guarantees of future performance or results and involve substantial risks and uncertainties. Actual results, developments and events may differ materially from those in the forward-looking statements as a result of various factors including: the expected timing, commencement and outcomes of Biohaven's planned and ongoing clinical trials including the Phase 2/3 trial of BHV-8000; the timing of planned interactions and filings with the FDA; the timing and outcome of expected regulatory filings; complying with applicable U.S. regulatory requirements; the potential commercialization of Biohaven's product candidates and the expected timing thereof; the potential for Biohaven's product candidates to be successful therapies, including the potential for BHV-8000 as a treatment for Parkinson's disease; and the effectiveness and safety of Biohaven's product candidates. Additional important factors to be considered in connection with forward-looking statements are described in Biohaven's filings with the Securities and Exchange Commission, including within the sections titled "Risk Factors" and "Management's Discussion and Analysis of Financial Condition and Results of Operations". The forward-looking statements are made as of the date of this news release, and Biohaven does not undertake any obligation to update any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by law.

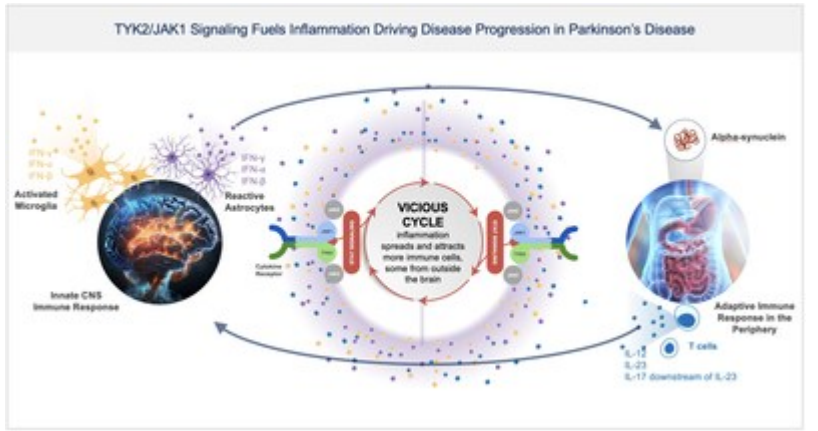
MoDE and TRAP are trademarks of Biohaven Therapeutics Ltd.

Investor Contact:

Jennifer Porcelli
Vice President, Investor Relations
jennifer.porcelli@biohavenpharma.com
+1 (201) 248-0741

Media Contact:

Mike Beyer
Sam Brown Inc.
mikebeyer@sambrown.com
+1 (312) 961-2502



View original content to download multimedia:https://www.prnewswire.com/news-releases/biohaven-enrolls-first-patient-into-phase-23-trial-in-early-parkinsons-disease-targeting-neuroinflammation-with-novel-brain-penetrant-tyk2jak1-inhibitor-302467788.html

SOURCE Biohaven Ltd.