



Friday, April 15–Thursday, April 21
Vancouver, BC, Canada

Adaptive Design Single Center Phosphodiesterase Type 4 (PDE4) Inhibitor Ibudilast (MN-166-ALS-1201) Phase 1b / 2a Clinical Trial

Double - Blind (DB) with Open Label Extensions (OLE) [NCT02238626] for Amyotrophic Lateral Sclerosis (ALS) Patients

[1] Not Requiring Non-Invasive Ventilation (no NIV) up to 5 years (Early Cohort – EC) and [2] Requiring Non-Invasive Ventilation (NIV) up to 10 years (Advanced NIV Cohort – ANC) from Disease Onset – Behavior of Creatinine as a Biomarker in Short Clinical Trials

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Objective

Describe implementation / safety-results of adaptive-design / single-center Ibudilast phase-1b/2a clinical trial [NCT02238626] in ALS patients [1] not requiring non-invasive-ventilation [no-NIV] up-to-5-years from disease onset and [2] requiring non-invasive - ventilation [NIV] up-to-10 years from disease-onset.

Background

Ibudilast has a known human safety profile and is effective in two ALS gene-based Drosophila models permitting assessment of its effectiveness targeting multiple disease etiological pathways at different [early-distal axonopathy / late-microglial activation] ALS stages [Fischer, 2004; Frakes, 2014].

Ibudilast Effective in Drosophila models

MN-166 ibudilast Preclinical Studies in ALS Transgenic Drosophila Models



A fruitful endeavor: Modeling ALS in the fruit fly

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Abstract

For over a century Drosophila melanogaster, commonly known as the fruit fly, has been instrumental in genetic research and disease modeling. In more recent years, it has been a powerful tool for modeling and studying neurodegenerative diseases, including the devastating and fatal neurodegenerative disease ALS. The success of this model organism in ALS research comes from the similarity of mechanisms governing neurodegeneration in a number of animal models and the developmental recapitulation of cellular

and molecular processes in the fruit fly.

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