NEWS RELEASE

Autobahn Therapeutics Announces Positive Topline Results from Phase 1 Study of ABX-002, its Lead Oral Treatment for Major Depressive Disorder

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ABX-002 was safe and well tolerated with no serious adverse events observed

Clinical evidence of CNS target engagement observed at top dose in the MAD study is consistent with brain-activating thyroid effects and informs Phase 2 dose selection

Phase 1 SAD and MAD package supports proceeding to Phase 2 for the adjunctive treatment of major depressive disorder in 2024

SAN DIEGO--(BUSINESS WIRE)-- Autobahn Therapeutics, a biotechnology company leveraging its brain-targeting chemistry platform, validated biology and biomarker-driven strategies to develop restorative treatments for people affected by central nervous system (CNS) disorders, today announced positive topline results from a first-in-human Phase 1 clinical study assessing the safety, tolerability, pharmacokinetics (PK), and pharmacodynamics (PD) of escalating doses of ABX-002 in healthy volunteers. ABX-002, a potent and selective thyroid hormone beta receptor (TRβ) agonist, is an orally administered small molecule being evaluated as a potential adjunctive treatment for people with major depressive disorder (MDD).

“We are encouraged by these Phase 1 study results, which demonstrate CNS target engagement and an overall favorable PK, safety, and tolerability profile for ABX-002,” said Gudarz Davar, M.D., Executive Vice President, Head of Research and Development for Autobahn Therapeutics. “Synthetic thyroid hormone treatment is well understood to offer benefit as an adjunctive treatment for MDD, however it is not approved for use in the United States and its clinical utility is limited largely due to concerns about long-term safety and monitoring. Together, these Phase 1

results allow us to establish a dose range for efficacy testing and confidently advance ABX-002, a centrally active, differentiated thyromimetic, to the next stage of clinical development for the treatment of MDD."

ABX-002 Phase 1 SAD and MAD Study in Healthy Volunteers

The randomized, double-blind, placebo-controlled Phase 1 study enrolled 48 healthy volunteers and assessed the safety, tolerability, PK, and PD of ABX-002 given orally once-daily. In an escalating fashion, subjects in the single ascending dose (SAD) received a single dose of either ABX-002 or placebo at doses ranging from 0.0075 to 0.15 mg and in the multiple ascending dose (MAD), received 14 days of either ABX-002 or placebo at doses ranging from 0.0028 to 0.0056 mg. Safety evaluations included adverse event monitoring, clinical laboratory testing, vital signs, electrocardiograms, and physical examinations.

Results from the Phase 1 study:

- Across the range of doses tested, ABX-002 was safe and well-tolerated.
- There were no serious adverse events and no premature discontinuations related to safety, with all 48 subjects completing the study.
- ABX-002 demonstrated acceptable, dose proportional PK across both SAD and MAD.
- Thyroid hormone axis measures remained within the normal range for all doses of ABX-002 except for transient reductions in thyroid stimulating hormone (TSH) at a dose level 54x above the planned top dose for Phase 2.
- In the top MAD cohort (0.0056 mg), clinical evidence of brain target engagement ("mood alteration") was observed in two ABX-002-treated subjects beginning on or after 7 days of dosing and resolving by days 14 or 15. These events are evidence of CNS pharmacologic actions of ABX-002 and are similar to the effects described following overmedication with synthetic thyroid hormone. Mood altering events were not observed in 0.0028 mg MAD cohort.

Based on the Phase 1 results, Autobahn plans to submit an investigational new drug (IND) application to the U.S. Food and Drug Administration and advance into a Phase 2 clinical study to evaluate ABX-002 as an adjunctive treatment for individuals with MDD in the first half of 2024.

"The positive data from this Phase 1 study represent a major milestone for ABX-002 and support its advancement into Phase 2 development," said Kevin Finney, President and Chief Executive Officer of Autobahn Therapeutics. "Millions of people today live with major depressive disorder, and more than half are considered either partial or inadequate responders to the currently available antidepressant therapies. As a result, there remains a significant unmet need for new treatments for MDD. We believe that ABX-002 can play an important role in this treatment paradigm as a novel adjunctive therapy, boosting the effects of existing antidepressants."

About Major Depressive Disorder (MDD)

MDD is the third most common cause of disability worldwide, and leaves patients to suffer from an exasperated state of helplessness, grief, and increased suicidality. The cause of MDD is not fully understood but has centered around disruption of the monoaminergic system (e.g., serotonin and norepinephrine activity). Approved drugs that enhance monoaminergic signaling in the brain have shown beneficial effects in MDD, but many patients continue to suffer from an inadequate response to treatment that sustains their depressive symptoms and disability.

About ABX-002

ABX-002 is an orally administered, potent and selective thyroid hormone beta receptor (TRβ) agonist that is brain enhanced, demonstrates target engagement in brain regions associated with depression, and has reduced peripheral liabilities when compared with synthetic thyroid hormones (e.g., triiodothyronine, T3), used at therapeutic doses to adjunctively treat MDD. ABX-002, like synthetic thyroid hormones, is expected to augment and boost antidepressant treatment effects in patients who are experiencing inadequate responses to pharmacotherapy.

About Autobahn Therapeutics

Autobahn Therapeutics is a biotechnology company developing a portfolio of neuropsychiatric and neurodegenerative clinical candidates leveraging its brain-targeting chemistry platform. Autobahn aims to unlock new therapeutic opportunities through precision tuning of CNS exposure, pursuing validated clinical and biologic targets, and guiding development with biomarkers. The company's pipeline is led by ABX-002, a thyroid hormone receptor beta (TRβ) agonist, being developed as a potential adjunctive treatment for people with MDD, including those who have had an inadequate response to their antidepressant. Autobahn Therapeutics is based in San Diego. For more information, visit **www.autobahntx.com**.

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