Transneural Therapeutics Presents Preclinical Data on Lead Candidate TN-001 at 64th Annual Meeting of ACNP (2026)

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Poster presentation highlighted promising pharmacology and behavioral results on lead candidate, TN-001, in preclinical studies.

TN-001 is under development for both major depressive disorder (MDD) and post-traumatic stress disorder (PTSD).

TN-001 rapidly induces neuroplasticity, including synaptogenesis.

NASSAU, Bahamas, Jan. 14, 2026 /PRNewswire/ -- **Transneural Therapeutics, Inc.** (Transneural), a neuroscience-focused biotechnology company aiming to transform the treatment of neuropsychiatric and neurodegenerative diseases with novel pharmacotherapies, today presented new data on their lead candidate, TN-001, at the 64th Annual Meeting of the American College of Neuropsychopharmacology (ACNP), taking place January 12-15, 2026 in Nassau, Bahamas.

"Research has shown that neuroplasticity plays a crucial role in the pathophysiology of various neuropsychiatric disorders, including depression and PTSD," said Roger McIntyre, M.D., FRCPC. "With a significant unmet need in both conditions, new treatment approaches are clearly needed. Given this reality, I believe that the neuroplasticity data seen with TN-001 are very encouraging."

"We are excited to present our data on TN-001. The data in our poster provide critical insights for the potential use of TN-001 for the treatment of major depression and other neuropsychiatric conditions. The ability of TN-001 to rapidly induce neurite growth and promote synaptogenesis is particularly encouraging as we continue to explore the potential use of TN-001 for other neuropsychiatric and neurodegenerative conditions," explains Mark A. Demitrack, M.D., Chief Research and Development Officer of Transneural Therapeutics.

Presentation Title: Preclinical Behavioral and Pharmacological Characteristics of TN-001, a Novel, Non-Hallucinogenic Neuroplastogen for the Treatment of Major Depressive Disorder

Key Findings:

- TN-001 is a potent partial agonist at the $5HT_{2A}$ receptor, and full antagonist at the $5HT_{2B}$ receptor.

- 5-HT_{2B} agonism is a common off-target activity among many 5-HT_{2A} agonists and confers significant risk for long-term cardiac valvular hypertrophy. However, given its full antagonism at the 5-HT_{2B} receptor, TN-001 is unlikely to carry long-term risk of cardiac valvulopathy.
- In a rat neuronal cell culture assay, TN-001 rapidly induces statistically significant and dose-dependent structural neuroplasticity shown by increased number of neurons, synapses, and neurite network.
- Mice treated with TN-001 display an antidepressant phenotype, demonstrated by reduced immobility time in the forced swim test, a preclinical screening model for antidepressants.
- In the mouse head twitch response assay, TN-001 shows no activity, which suggests a lack of hallucinogenic or dissociative effects.
- TN-001 does not impair locomotor activity in mice at relevant therapeutic doses.

About Transneural
Transneural is a preclinical-stage biotechnology company transforming the treatment of neuropsychiatric and neurodegenerative diseases with novel rapid-acting therapies. Transneural is led by globally recognized clinical development and commercialization leaders in neuropsychiatry and neurodegeneration. Transneural's pipeline is focused on G-protein coupled receptors known to be validated drug targets, with therapeutics built on entirely novel chemical scaffolds identified by bridging AI-informed structure/function relationships with applied medicinal chemistry.

About TN-001
Transneural's lead asset, TN-001, is a dual 5-HT_{2A} partial agonist/5-HT_{2B} antagonist. TN-001 is an AI-informed molecule specifically designed to deliver rapid and robust efficacy with a cardiac safety profile that enables daily dosing by the patient at home. TN-001 is in development for MDD and PTSD. In preclinical studies, TN-001 produces rapid neuroplasticity and synaptogenesis, but without the disadvantage of behavioral toxicity.

This press release is not sanctioned by ACNP.

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