

Transneural Therapeutics to Present Preclinical Data on Lead Candidate TN-001 at ASCP 2026

May 27, 2026, 8:00 ET

Preclinical findings demonstrate TN-001 induces rapid increases in structural neuroplasticity and synaptogenesis on par with or greater than psilocin or BDNF.

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

MIAMI, FL, MAY 27, 2026-- [Transneural Therapeutics, Inc.](#) (Transneural), a neuroscience-focused biotechnology company aiming to transform the treatment of neuropsychiatric and neurodegenerative diseases with novel pharmacotherapies, today announced the presentation of preclinical data for lead candidate, TN-001, at the 2026 American Society of Clinical Psychopharmacology (ASCP) Annual Meeting taking place in Miami, Florida.

Poster Session: Wednesday, May 27, 2026, 11:45 am-1:30 pm ET

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.
- TN-001 rapidly induces statistically significant and dose-dependent structural neuroplasticity shown by increased number of neurons, synapses, and neurite network *ex vivo*.
- TN-001 was rationally designed to be a full 5-HT_{2B} antagonist, unlike other 5HT_{2A} agonists in development. 5-HT_{2A} agonists commonly carry off-target 5-HT_{2B} agonist activity, a liability that confers significant risk for long-term cardiac valvular hypertrophy. TN-001's engineered 5-HT_{2B} antagonist activity is expected to confer a desirable cardiac profile that would allow for chronic daily dosing.
- 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.
- TN-001 shows no activity in the mouse head twitch response assay, which indicates a desirable behavioral toxicity profile without hallucinogenic or dissociative side effects.
- TN-001 does not impair locomotor activity in mice at relevant therapeutic doses.

“For over a decade we have known that neuroplasticity plays a crucial role in depression and PTSD, and that it might be necessary for effective treatment,” said Andrew J. Cutler, MD, Clinical Professor of Psychiatry at SUNY Upstate Medical University. “Increases in neuroplasticity have been demonstrated

with standard antidepressant treatments, but it can take weeks to months to be seen. Today patients and families have to endure delayed and inadequate efficacy, but TN-001 provides hope for a better future.”

“We are encouraged by the rapid effects on neuroplasticity and synaptogenesis seen with TN-001. TN-001 is not a psychedelic agent, nor does it structurally resemble any known psychedelic. TN-001 induced rapid increases in neuroplasticity in a time frame similar to what is seen in the literature on psychedelics, but without the behavioral toxicity seen with those agents. 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,” said Mark A. Demitrack, M.D., Chief Research and Development Officer of Transneural Therapeutics.

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.

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