NeuroSense Investor Relations

NeuroSense: PrimeC Produces Statistically Significant Reductions in Alzheimer's Disease Biomarkers

CAMBRIDGE, Mass., Oct. 6, 2025 /PRNewswire/ -- NeuroSense Therapeutics Ltd. (NASDAQ: NRSN) ("NeuroSense"), a late-clinical stage biotechnology company developing novel treatments for severe neurodegenerative diseases, today announced new positive findings based on plasma samples from its Phase-2b PARADIGM study. These results indicate that PrimeC produced robust, statistically significant reductions in multiple microRNAs that are consistently implicated in Alzheimer's disease pathology - changes that reflect reduction of neuroinflammatory and neurodegenerative activity.

Key Highlights -

PrimeC treatment significantly reduced several AD-associated microRNAs, including miR-146a-5p (p=0.007), miR-21-5p (p=0.003), miR-let-7a-5p (p=0.028) and miR-let-7e-5p (p=0.006), measured as change from baseline, while no significant change was observed in the placebo group over time.

MicroRNAs are master regulators of gene expression. The miRNAs described above are associated with neuroinflammation, amyloid and tau pathology, synaptic dysfunction which relate to a cognitive decline.

By lowering these biomarkers, PrimeC demonstrated the ability to directly target biological pathways central to AD progression, supporting its potential as a disease-modifying therapy.

Alon Ben-Noon, Chief Executive Officer of NeuroSense, said:
"These biomarker data provide a clearer view of how our novel combination modulates biological pathways implicated in Alzheimer's disease. The magnitude and consistency of the observed miRNA changes are highly encouraging and, together with our Phase 2 clinical findings, will inform a design of follow-on AD study, all while we continue to advance PrimeC's Phase 3 readiness program in ALS."

About Alzheimer's Disease
Alzheimer's disease (AD) is a progressive neurodegenerative disorder and the leading cause of dementia worldwide, affecting more than 30 million people globally. AD is characterized by memory loss, cognitive decline, and behavioral changes, and currently has no cure. Existing therapies provide only limited symptomatic relief, leaving a significant unmet need for disease-modifying treatments that can slow or halt progression. Given the complexity of AD, approaches that target multiple disease mechanisms simultaneously, such as PrimeC, hold potential to deliver meaningful therapeutic advances for patients and their families.

About PrimeC

PrimeC, NeuroSense's lead drug candidate, is a novel extended-release oral formulation composed of a unique fixed-dose combination of two FDA-approved drugs: ciprofloxacin and celecoxib. PrimeC is designed to synergistically target several key mechanisms of ALS and AD, that contribute to neuron degeneration, inflammation, iron accumulation and impaired ribonucleic acid ("RNA") regulation to potentially inhibit the progression of ALS and AD.

About PARADIGM

PARADIGM is a prospective, multinational, randomized, double-blind, placebo-controlled Phase2b (NCT05357950) clinical trial of PrimeC in ALS. The trial included 68 participants living with ALS in Canada, Italy, and Israel. During the first 6 months of the trial, 45 participants were randomized to receive PrimeC, and 23 participants were randomized to receive placebo. This was followed by a 12-month open-label extension with all participants receiving PrimeC in a blinded manner, where neither the participants nor the clinical staff were aware of the initial treatment allocation. Most patients enrolled in both the active and placebo arms of the trial were concurrently treated with Riluzole, the ALS standard of care medication, indicating PrimeC slowed disease progression well beyond the level afforded by the FDA approved ALS drug.

About NeuroSense

NeuroSense Therapeutics, Ltd. is a clinical-stage biotechnology company focused on discovering and developing treatments for patients suffering from debilitating neurodegenerative diseases. NeuroSense believes that these diseases, which include amyotrophic lateral sclerosis (ALS), Alzheimer's disease and Parkinson's disease, among others, represent one of the most significant unmet medical needs of our time, with limited effective therapeutic options available for patients to date. Due to the complexity of neurodegenerative diseases and based on strong scientific research on a large panel of related biomarkers,

NeuroSense's strategy is to develop combined therapies targeting multiple pathways associated with these diseases.

For additional information, we invite you to visit ourwebsite and follow us on LinkedIn, YouTube and X. Information that may be important to investors may be routinely posted on our website and these social media channels.

Forward-Looking Statements

This press release contains "forward-looking statements" that are subject to substantial risks and uncertainties. All statements, other than statements of historical fact, contained in this press release are forward-looking statements. Forward-looking statements contained in this press release may be identified by the use of words such as "anticipate," "believe," "contemplate," "could," "estimate," "expect," "intend," "seek," "may," "might," "plan," "potential," "predict," "project," "target," "aim," "should," "will" "would," or the negative of these words or other similar expressions, although not all forward-looking statements contain these words. Forward-looking statements are based on NeuroSense Therapeutics' current expectations and are subject to inherent uncertainties, risks and assumptions that are difficult to predict and include statements regarding the timing of regulatory filings, meetings and regulatory decisions. Further, certain forward-looking statements are based on assumptions as to future events that may not prove to be accurate. The future events and trends may not occur and actual results could differ materially and adversely from those anticipated or implied in the forward looking statements. These risks include the uncertainty regarding outcomes and the timing of current and future clinical trials; timing for reporting data; the ability of NeuroSense to remain listed on Nasdaq; and other risks and uncertainties set forth in NeuroSense's filings with the Securities and Exchange Commission (SEC). You should not rely on these statements as representing our views in the future. More information about the risks and uncertainties affecting NeuroSense is contained under the heading "Risk Factors" in the Annual Report on Form 20-F filed with the Securities and Exchange Commission on April 7, 2025 and NeuroSense's subsequent filings with the SEC. Forward-looking statements contained in this announcement are made as of this date, and NeuroSense undertakes no duty to update such information except as required under applicable law.

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