NeuroSense Investor Relations

NeuroSense Reports Positive Biomarker Findings from Phase 2 RoAD Proof-of-Concept Study of PrimeC in Alzheimer's Disease

PrimeC was associated with changes across multiple biomarkers spanning key neurodegenerative disease pathways, providing early biological evidence consistent with potential target engagement

Findings support continued development of PrimeC's multi-target approach in Alzheimer's disease

CAMBRIDGE, Mass., June 25, 2026 /PRNewswire/ -- NeuroSense Therapeutics Ltd. (NASDAQ: NRSN) ("NeuroSense"), a late-clinical stage biotechnology company developing novel treatments for severe neurodegenerative diseases, today announced positive biomarker findings from its Phase 2, randomized, double-blind, placebo-controlled proof-of-concept RoAD study (NST-AD-001) of PrimeC in Alzheimer's disease (AD).

The RoAD clinical trial enrolled eight participants, randomized to PrimeC or placebo. Three participants completed a 12-month follow-up period, with both CSF and plasma samples collected at three timepoints.

The plasma biomarker analysis showed multiple, distinctive protein biomarker changes. Most notably, these included changes in the hallmark protein biomarkers of AD - brain-derived tau (total) and phospho-tau(s) as well as the amyloid-beta 42/40 ratio. Distinctive changes were also found in the levels of other major neurodegenerative disease misfolding proteins: alpha-synuclein (total, oligomeric and p129) and TAR DNA-binding protein 43 ("TDP-43," both total and p409). TDP-43 is the hallmark of ALS while Parkinson's and dementia with Lewy bodies are characterized by accumulations of alpha-synuclein. These pathological proteins commonly co-occur with Alzheimer's disease. Either (or both) of these may be present in more than 50% of Alzheimer's disease cases, and when co-pathology is present, it is associated with faster and/or more severe dementia. Finally, additional changes were observed in key biomarkers of oxidative stress and inflammation affecting proteostasis and neurodegeneration. All of these changes were directionally consistent with PrimeC's proposed mechanism of action and align with biomarker effects previously observed in the Company's ALS program, supporting engagement of shared neurodegenerative pathways.

The biomarker findings supporting PrimeC's target engagement build on its previously reported favorable safety and tolerability profile from RoAD, in which no serious adverse events and no new or unexpected safety signals were identified.

"The initial findings seen from the RoAD study are encouraging, in that they may suggest that the same multi-target mechanism we have been advancing in ALS is engaging biology that is also central to Alzheimer's," said Alon Ben-Noon, Co-Founder and Chief Executive Officer of NeuroSense. "This was a small, exploratory proof-of-concept study with a limited number of analyzable patient samples, and so we are appropriately measured about what it can tell us on its own. But seeing biological signals that point in the same direction across two distinct neurodegenerative diseases strengthens our conviction in PrimeC's underlying approach and helps inform the design of a next, adequately powered study."

"Alzheimer's disease is driven by multiple, interacting pathological processes, which is one reason single-target therapies so often fall short. The biomarker findings in this first treated AD patient suggest broad proteostatic effects, consistent with PrimeC's proposed mechanism of action," said Prof. Steven E. Arnold, Professor of Neurology at Harvard Medical School and member of NeuroSense's Scientific Advisory Board. "Of course these are the very first biomarker data of PrimeC treatment in AD and should be interpreted with that in mind. They do, however, support the rationale for evaluating PrimeC in a larger, well-controlled trial designed to test whether these biological effects replicate and more importantly, translate into meaningful clinical benefit."

Next Steps

NeuroSense intends to use these proof-of-concept findings to help inform the design of a future, adequately powered clinical study of PrimeC in Alzheimer's disease, and will continue engaging with scientific and regulatory stakeholders as the program advances.

About RoAD

RoAD (NST-AD-001) is a Phase 2, randomized, double-blind, placebo-controlled, exploratory proof-of-concept study evaluating the safety, tolerability, and biomarker effects of PrimeC in eight participants with Alzheimer's disease. As a proof-of-concept study, clinical outcome measures are descriptive by design.

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 NeuroSense

NeuroSense Therapeutics, Ltd. is a late-stage clinical biotechnology company focused on discovering and developing treatments for people 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, including, without limitation, statements regarding the interpretation, significance and potential implications of the exploratory biomarker observations from the RoAD study, the potential of PrimeC to affect disease related biology or engage mechanisms relevant to Alzheimer's disease and the potential for these preliminary observations to inform the design of future studies. 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. 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, without limitation, the very limited sample size and exploratory nature of the biomarker analyses reported in this press release; the risk that preliminary observations from three analyzed patients may not be predictive, may not be statistically meaningful, may not be replicated in this study or future studies and may not correlate with or translate into clinical outcomes or benefit or disease modification; risks related to the timing of current and future clinical trials; the risk that PrimeC will not advance towards later-stage development; the risk that additional data from the RoAD study may differ from the observations reported in this press release; timing for reporting data, including from the study of PrimeC in Alzheimer's disease; that the study will not be successful; 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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