NEWS RELEASE

NeurMedix Obtains FDA Authorization for Pivotal Phase 3 Alzheimer's Trial

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SAN DIEGO, Feb. 02, 2021 (GLOBE NEWSWIRE) -- NeurMedix, LLC, a San Diego based privately held clinical stage pharmaceutical company announced that it has received authorization from the U.S. Food and Drug Administration's (FDA) Office of Neuroscience, Division of Neurology I, to initiate a pivotal phase 3 clinical trial in Alzheimer's disease with its lead clinical drug candidate, NE3107, 17α-ethynyl-androst-5-ene-3,7,17-triol. NE3107 is a small molecule, orally administered, anti-inflammatory, insulin-sensitizing agent with a novel mechanism of action. The clinical trial, a Phase 3, randomized, double-blind, placebo-controlled, parallel group, multicenter study of NE3107 in subjects who have mild to moderate Alzheimer's disease (**NCT04669028**) will be conducted at approximately thirty clinical sites in the U.S.

The trial will evaluate twice daily 20 mg oral NE3107 versus placebo for 30 weeks beginning with dose titration of 5 mg BID in weeks 1 and 2 and 10 mg BID in weeks 3-4, with 20 mg BID for weeks 5-30. Approximately 316 patients will be randomized with a 1:1 ratio of active to placebo. Inclusion/exclusion criteria are structured to help select only AD patients and exclude subjects with cognitive impairment secondary to other medical conditions. Stable regime of approved AD co-medication is permitted, and continued use of glycemic control medications stable for three months prior to randomization is permitted. The co-primary endpoints are mean change from baseline to week 30 in ADAS-Cog 12 comparing the NE3107 group to the placebo group, and mean change from baseline to week 30 in ADCS-CGIC comparing the NE3107 group to the placebo group. Secondary endpoints include additional tests of neuropsychological deficits, measures of glycemic control, and inflammation.

The rationale for the trial is based on growing scientific evidence linking inflammation and insulin resistance to Alzheimer's disease dementia and progression. The recently coined term, "type 3 diabetes," underscores the close link between Alzheimer's disease and insulin resistance that develops from inflammatory inactivation of the insulin signaling pathway in the brains of Alzheimer's patients. Inflammation has long been known as a major driver of Alzheimer's disease, but currently approved anti-inflammatory agents, and potentially those in development, are

poorly suited to chronic use in Alzheimer's due to one or more factors relating to poor blood-brain barrier penetration, toxicity and side effects, or mechanisms of action that are too narrow to be effective against the multiplicity of inflammatory pathways that are activated in the disease. NE3107 addresses these issues as a highly blood brain barrier permeable drug, with very low potential for toxicity that targets the major inflammation signaling pathways, those mediated by extracellular signal regulated kinase (ERK), nuclear factor kappa-light-chain-enhancer of activated B cells (NF-κB), and tumor necrosis factor (TNF). The company believes that NE3107's combination of small molecule characteristics and broad mechanism of action without immunosuppressive effects provides advantages over protein-based TNF inhibiting therapies, as well as antibodies against amyloid beta and phospho-tau.

Commenting on the announcement, Terren Peizer, Chairman and CEO, and majority shareholder of NeurMedix and BioVie Inc. (NASDAQ: BIVI), a clinical-stage company developing innovative drug therapies for liver disease, stated, "It is well-known that insulin resistance predicts neuroinflammation, and cognitive decline, and that up to 81% of Alzheimer's disease patients have impaired glucose tolerance or type 2 diabetes (Diabetes 53 474 2004). We believe NE3107 reduces neuroinflammation and restores insulin sensitivity, and thereby may halt the progression of Alzheimer's disease. Of the four indications that we hope to pursue in the coming year, we believe that the application of NE3107 to Alzheimer's disease has a very high probability of success as it uniquely addresses all of the known pathways of Alzheimer's disease. The FDA's authorization of this pivotal phase 3 clinical trial is an important milestone in our pursuit of a life changing, safe, and efficacious intervention for this largest unmet medical need. Having followed the evolution of the science, the drug development, and capital investment in excess of $85 Million in NE3107, it's gratifying for the NeurMedix team to have the opportunity to validate and deliver meaningful benefits to this important patient population."

Christopher Reading PhD, Chief Scientific Officer of NeurMedix, added: "Inflammation-driven systems dysregulation has been well-described in Parkinson's and Alzheimer's diseases. It was recently reported in the journal Diabetes Care that increases in coefficients of variation (CVs) of fasting glucose and HbA1c were independently associated with an increased risk of Alzheimer's disease (Diabetes Care 40 1210 2017), suggesting that our previous findings that NE3107 decreases system dysregulation should bode well for the Phase 3 trial."

The protocol was developed in collaboration with a team from a leading global contract research organization (CRO), Worldwide Clinical Trials (Worldwide), led by Dr. Michael Murphy, MD, PhD, Worldwide's Chief Medical and Scientific Officer. Dr. Murphy is a widely recognized expert in translational research, strategic program development, and facilitation of commercialization during clinical development, with greater than 30 years of experience in Alzheimer's drug development and clinical trial design. The trial will be managed by Cognitive Research Corporation (CRC, St. Petersburg, FL), a full-service CRO with a proven track record in assessing both the efficacy and safety of products across a wide range of indications, and primarily focused on CNS research in

psychiatric and neurologic therapeutic areas. NeurMedix expects to enroll the first patient in May 2021.

Previous clinical studies with NE3107 conducted in the FDA Division of Metabolism and Endocrinology Products demonstrated anti-inflammatory and insulin sensitizing activity in subjects with evidence of systemic inflammation. Publication of these results reported that NE3107 increased insulin-stimulated glucose disposal and HDL cholesterol, and decreased C-reactive protein (CRP, a measure of systemic inflammation) in impaired glucose tolerance subjects (Obesity 21 E343 2013). A subsequent publication summarized inflammatory, hematologic and metabolic parameters from placebo-treated subjects with increasing metabolic dysregulation included healthy volunteers, impaired glucose tolerant subjects, dyslipidemia patients, metformin-treated and treatment-naïve type 2 diabetes patients, and described the effects of inflammation on metabolic and hematological homeostasis. The publication reported that inflammation associated with increasing metabolic dysregulation increased the CVs of clinical laboratory tests for inflammatory, hematologic and metabolic parameters, demonstrating inflammation-driven systems dysregulation. In the type 2 diabetes study, advanced type 2 diabetic subjects on placebo showed statistically random effects for erythroid, glucose and HbA1c fluctuations. After 84 days of NE3107 treatment, NE3107 significantly decreased insulin resistance, postprandial glucose and HbA1c in obese, inflamed patients. In addition, NE3107 significantly decreased variances in tests for hyperglycemia (fasting glucose, fructosamine), erythroid (HbA1c), dyslipidemia (triglycerides), endocrine (insulin, leptin), inflammatory (monocyte chemoattractant protein-1 [MCP-1]), and homeostasis (homeostatic model assessment of pancreatic beta cell function [HOMA %B] and insulin resistance [HOMA IR]) parameters, compared to placebo (Mediators Inflamm 2013 814989). The conclusion being that the anti-inflammatory action of NE3107 restored homeostasis to the dysregulated parameters.

About NeurMedix, LLC

NeurMedix, Inc. is a clinical-stage biopharmaceutical company that engages in developing products for the treatment of neurological and neuro-degenerative disorders and certain cancers. The company's product candidates have successfully completed 11 pre-clinical, and 6 Phase I, Phase I/II, and Phase II clinical studies in various inflammatory diseases indicating its broad anti-inflammatory effect without evidence of immunosuppression. In addition to Alzheimer's disease, NeurMedix plans to enter clinical trials for the treatment of Parkinson's disease and several oncological indications later this year. In excess of $85 million has been invested in developing NE3107. The company's focus is on diseases with significant unmet medical needs and commercial potential in order to expedite FDA review, minimize capital requirements and optimize shareholder value.

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