Prothena Announces Phase 1b Clinical Trial Results of PRX002/RG7935 for Parkinson's Disease Published in JAMA Neurology

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Data Previously Presented in 2017 at the 13th International Conference on Alzheimer's and Parkinson's Diseases (AD/PD)

DUBLIN, Ireland, June 19, 2018 (GLOBE NEWSWIRE) -- Prothena Corporation plc (NASDAQ:PRTA), a clinical-stage biotechnology company focused on the discovery and development of novel therapies in the neuroscience category, today announced that results from the Phase 1b multiple ascending dose study of PRX002/RG7935, an investigational monoclonal antibody for the potential treatment of Parkinson's disease, has been published in *JAMA Neurology*. PRX002/RG7935 is the focus of a worldwide collaboration between Prothena and Roche.

The data, which were previously presented as part of a late-breaking oral session at the 13th International Conference on Alzheimer's and Parkinson's Diseases (AD/PD) in Vienna, Austria in April 2017, demonstrated that PRX002/RG7935 was found to have an acceptable safety and tolerability profile in patients with Parkinson's disease, meeting the primary objective of this study. CNS penetration was demonstrated by a dose-dependent increase in PRX002/RG7935 levels in CSF, and a mean concentration of PRX002/RG7935 in CSF of 0.3 percent relative to serum across all dose levels. Additional results showed a rapid, dose- and time dependent mean reduction of free serum alpha-synuclein levels of up to 97 percent after a single dose, which were statistically significant ($p<0.0001$), and maintained following two additional monthly doses. The study results supported advancing PRX002/RG7935 into the PASADENA Phase 2 clinical study in patients with early Parkinson's disease that is currently ongoing.

About Alpha-synuclein

Alpha-synuclein, a protein found in neurons and other cells, is a major component of pathology that characterizes several neurodegenerative disorders including Parkinson's disease, dementia with Lewy bodies, and multiple system atrophy, which collectively are termed synucleinopathies. While the normal function of alpha-synuclein is not well understood, the protein normally occurs in a soluble form. In synucleinopathies, the alpha-synuclein protein can misfold and aggregate to form soluble aggregates and insoluble fibrils that contribute to disease pathology. There is increasing evidence that this disease-causing alpha-synuclein can be propagated and transmitted from neuron to neuron, resulting in a spreading of neuronal death. Recent studies in cellular and animal models suggest that the spread of alpha-synuclein-associated neurodegeneration can be disrupted by targeting aberrant forms of alpha-synuclein.

About PRX002/RG793

PRX002/RG7935 is a monoclonal antibody under development for the potential treatment of Parkinson's disease. PRX002/RG7935 targets alpha-synuclein and is designed to slow the progressive neurodegeneration associated with alpha-synuclein misfolding and/or the cell-to-cell transmission of the aggregated pathogenic forms of alpha-synuclein found in Parkinson's disease and other synucleinopathies. Prior to initiating clinical trials, Prothena demonstrated the efficacy of PRX002/RG7935 in various cellular and animal models of alpha-synuclein-related disease. In multiple transgenic mouse models of Parkinson's disease, the murine version of PRX002/RG7935, reduced the appearance of alpha-synuclein pathology, protected synapses and improved performance in behavioral testing. In December 2013, Prothena and Roche entered into a worldwide collaboration to develop and commercialize antibodies that target alpha-synuclein, including PRX002/RG7935. Prothena has an option to co-promote PRX002/RG7935 in the U.S., where the companies share all development and commercialization costs, as well as profits, on a 30/70 basis (30 percent Prothena, 70 percent Roche). Outside the U.S., Roche has sole responsibility for developing and commercializing PRX002/RG7935 and will pay Prothena up to double-digit royalties on net sales. To date, Prothena has earned $75 million of a potential $600 million that includes clinical, regulatory and sales milestones. For more information on the Phase 2 PASADENA clinical study of PRX002/RG7935 in patients with Parkinson's disease, visit clinicaltrials.gov and search NCT #03100149 or visit www.pasadenastudy.com.

About Parkinson's Disease

Parkinson's disease is a progressive degenerative disorder of the central nervous system (CNS) that affects one in 100 people over age 60. With an estimated seven to 10 million patients living with Parkinson's disease worldwide, it is the second most common neurodegenerative disorder after Alzheimer's disease. The disease is characterized by the neuronal accumulation of aggregated alpha-synuclein in the CNS and peripheral nervous system that results in a wide spectrum of worsening progressive motor and non-motor symptoms. While diagnosis relies on motor symptoms classically associated with Parkinson's disease, non-motor symptoms may present many years earlier. Current treatments for Parkinson's disease are symptomatic and only address a subset of symptoms such as motor impairment, dementia, or psychosis. Symptomatic therapies do not target the underlying cause of the disease and lose effectiveness, often leading to debilitating side effects as the disease progresses.

About Prothena

Prothena Corporation plc is a clinical-stage biotechnology company focused on the discovery and development of novel therapies with the potential to fundamentally change the course of progressive, life-threatening diseases in the neuroscience category. Fueled by its deep scientific understanding built over decades of neuroscience research, Prothena is advancing a pipeline of therapeutic candidates for a number of indications and novel targets including Parkinson's disease and other related synucleinopathies (PRX002/RG7935) and ATTR amyloidosis (PRX004), as well as tau, Aβ (Amyloid beta) and TDP-43 where its scientific understanding of disease pathology can be leveraged. For more information, please visit the Company's website at www.prothena.com and follow us on Twitter @ProthenaCorp.

Forward-Looking Statements

This press release contains forward-looking statements. These statements relate to, among other things, the design of PRX002/RG7935, its proposed mechanism of action and its potential as a treatment for Parkinson's disease; how disease-causing alpha-synuclein might spread and how it might be disrupted; and amounts we might earn under our collaboration with Roche. These statements are based on estimates, projections and assumptions

that may prove not to be accurate, and actual results could differ materially from those anticipated due to known and unknown risks, uncertainties and other factors, including but not limited to the risks, uncertainties and other factors described in the "Risk Factors" sections of our Annual Report on Form 10-K filed with the Securities and Exchange Commission (SEC) on February 26, 2018 and our subsequent Quarterly Reports on Form 10-Q filed with the SEC. Prothena undertakes no obligation to update publicly any forward-looking statements contained in this press release as a result of new information, future events or changes in Prothena's expectations.

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