July 31, 2014

Initiation of Multiple Ascending Dose Phase 1 Study of PRX002 in Patients With Parkinson's Disease

- **First Patient with Parkinson's Disease Successfully Dosed in Second Phase 1 Study**
- **Trial Designed to Evaluate Safety, Tolerability, Pharmacokinetics and Immunogenicity**
- **Multiple Biomarkers to be Assessed**

DUBLIN, Ireland, July 31, 2014 (GLOBE NEWSWIRE) -- Prothena Corporation plc (Nasdaq:PRTA), a clinical stage biotechnology company focused on the discovery, development and commercialization of novel antibodies for the potential treatment of diseases that involve protein misfolding or cell adhesion, announced today that the first patient with Parkinson's disease has been successfully dosed in a Phase 1 multiple ascending dose clinical trial of PRX002, a potential disease-modifying treatment for Parkinson's disease. This study builds upon an ongoing Phase 1 single ascending dose study initiated in April 2014 designed to evaluate PRX002 in healthy volunteers.

This Phase 1 randomized, double-blind, placebo-controlled, multiple ascending dose study of PRX002 was initiated based upon safety and tolerability observed to date in the ongoing study in healthy volunteers, and is expected to enroll up to 60 patients with Parkinson's disease at multiple centers across the United States. The multiple ascending dose escalation trial is designed to evaluate the safety, tolerability, pharmacokinetics and immunogenicity of PRX002, and will also evaluate multiple clinical and exploratory biomarkers. Patients will be enrolled in escalating dose cohorts of PRX002 or placebo and will be observed for up to 6 months.

"We are extremely pleased to initiate this study of PRX002 in patients with Parkinson's disease," said Dale Schenk, PhD, President and Chief Executive Officer of Prothena. "Building on our robust preclinical studies that demonstrated targeting α-synuclein led to both functional and cognitive improvement in animal models of Parkinson's disease, together with Roche, we are excited for the opportunity to assess PRX002 in patients with Parkinson's disease."

As announced in December 2013, Prothena entered into a worldwide collaboration with Roche to develop and commercialize antibodies that target α-synuclein, including PRX002. To date, Prothena has received $45 million of the potential $600 million in total milestones through its collaboration with Roche.

About PRX002

PRX002, a monoclonal antibody targeting α-synuclein, has been tested in various cellular and animal models of synuclein-related disease. Passive immunization with 9E4, the murine version of PRX002, in multiple transgenic mouse models of Parkinson's disease reduced the appearance of synuclein pathology, protected synaptic connections and improved performance by the mice in behavioral testing. PRX002 may slow or reduce the progressive neurodegeneration associated with synuclein misfolding and/or the cell-to-cell transmission of the pathogenic forms of synuclein. For more information, please visit www.clinicaltrials.gov and search identifier NCT02095171 (single ascending dose) and NCT02157714 (multiple ascending dose).

About α-synuclein

α-synuclein, is found extensively in neurons and is a major component of pathological inclusions that characterize several neurodegenerative disorders, including Parkinson's disease, dementia with Lewy bodies, and multiple system atrophy, which collectively are termed synucleinopathies.

About Parkinson's Disease

Parkinson's disease is the second most common neurodegenerative disorder after Alzheimer's disease. There are an estimated seven to ten million patients with Parkinson's disease worldwide. Current treatments for Parkinson's disease are effective at managing the early motor symptoms of the disease, mainly through the use of levodopa and dopamine agonists. As the disease progresses and dopaminergic neurons continue to be lost, these drugs eventually become less effective at treating the symptoms.

About Prothena

Prothena Corporation plc is a clinical stage biotechnology company focused on the discovery, development and commercialization of novel antibodies for the potential treatment of diseases that involve protein misfolding or cell adhesion. The Company focuses on therapeutic monoclonal antibodies directed specifically to disease-causing proteins and its antibody-based product candidates target a number of potential indications including AL and AA forms of amyloidosis (NEOD001), Parkinson's disease and related synucleinopathies (PRX002) and novel cell adhesion targets involved in inflammatory diseases and cancers (PRX003).

For more information, please visit the Company's website at www.prothena.com.

Forward-looking Statements

This press release contains forward-looking statements within the meaning of the Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. These statements relate to, among other things, our ability to evaluate the safety, tolerability, pharmacokinetics and immunogenicity of PRX002, to evaluate clinical and exploratory biomarkers in patients with Parkinson's disease, and to enroll, observe and assess patients in this study of PRX002. These forward-looking statements are identified by their use of terms and phrases such as "anticipate," "believe," "could," "should," "estimate," "expect," "intend," "may," "plan," "predict," "project," "potential," "target," "will" and similar terms and phrases, including references to assumptions. These statements are based on assumptions that may not prove accurate. 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 and uncertainties described in Prothena's SEC filings, including the "Risk Factors" sections of Prothena's most recent Annual Report on Form 10-K and subsequent Quarterly Reports on Form 10-Q. 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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