November 1, 2016

Prothena Reports Third Quarter 2016 Financial Results and Provides R&D Update

- **Net cash used in operating and investing activities was $39.1 million in the third quarter and $96.8 million for the first nine months of 2016; quarter-end cash and restricted cash position of $412.6 million supports advancement of a diverse pipeline and commercial capabilities**
- **Appointed Gene G. Kinney, PhD President and Chief Executive Officer, following the passing of Prothena Co-founder, President and Chief Executive Officer Dale B. Schenk, PhD**
- **Announced strategy to advance a Phase 2 clinical trial for PRX003 in psoriatic arthritis**

DUBLIN, Ireland, Nov. 01, 2016 (GLOBE NEWSWIRE) -- Prothena Corporation plc (NASDAQ:PRTA), a late-stage clinical biotechnology company focused on the discovery, development and commercialization of novel protein immunotherapies, today reported financial results for the third quarter and first nine months of 2016. In addition, the Company provided an update on its R&D programs and 2016 financial guidance.

"With the continued expansion of our team and capabilities, we are advancing our vision of establishing a fully-integrated biotechnology company that can take a potential new therapy from discovery to patients," stated Gene Kinney, PhD, President and Chief Executive Officer of Prothena. "During the next 18 months, we expect to achieve significant milestones for each of our clinical programs. Later this month, we plan to report topline data from the Phase 1b multiple ascending dose study for PRX002 in patients with Parkinson's disease, and in 2017 we expect both interim and full results from the Phase 1b proof-of-biology study of PRX003 in patients with psoriasis. For our lead program NEOD001, the VITAL study is on track to be fully enrolled by the second quarter of 2017 and based on the current status of the PRONTO study enrollment, we expect topline results from this study in early 2018."

Recent Highlights and Program Updates:

- Announced that Gene Kinney, PhD was appointed as President and Chief Executive Officer. Dr. Kinney succeeded Prothena Co-founder, President and Chief Executive Officer Dale Schenk, PhD, who passed away on September 30, 2016. Dr. Kinney was also appointed to Prothena's Board of Directors.
- During a webcast, announced strategy to advance a Phase 2 clinical study of PRX003 in psoriatic arthritis, based on certain pre-specified criteria being met in an ongoing Phase 1b proof-of-biology study in patients with psoriasis. PRX003 targets CD146, also known as melanoma cell adhesion molecule (MCAM), a cellular adhesion molecule expressed on the surface of Th17 cells, and is designed to block pathogenic Th17 cells from infiltrating into tissue and releasing multiple cytokines that contribute to inflammatory disease pathology.
- In an oral session at the 6th International Charcot-Marie-Tooth and Related Neuropathy Consortium (CMTR) meeting, presented preclinical data from a series of novel, conformation-specific protein immunotherapy antibodies that selectively bind to amyloidogenic (diseased) forms of the transthyretin (ATTR) protein in tissues from ATTR amyloidosis patients.
- Published a paper in the journal Amyloid that further supports the proposed mechanism of action of NEOD001. The publication features preclinical data demonstrating the binding and phagocytosis clearance properties of NEOD001 and the related murine form of the antibody in tissue samples from multiple organs of patients with AL amyloidosis.
- In an oral session at the 15th International Symposium on Amyloidosis (ISA), Morie A. Gertz, MD, of Mayo Clinic, presented clinical data from the NEOD001 Phase 1/2 dose-escalation and expansion study, demonstrating best response rates of 53% and 63% for cardiac- (n=36) and renal- (n=35) evaluable patients, respectively. Improvement in peripheral neuropathy, a third organ system, was demonstrated by a mean 35% (median 23%, n=11) decrease in the Neuropathy Impairment Score- Lower Limb (NIS-LL) as a change from baseline to month 10, leading to an 82% response rate. NEOD001 continued to be generally safe and well tolerated. These data were also presented in poster sessions at the 2016 European Society of Cardiology Congress, the Heart Failure Society of America 2016 Annual Meeting, and the American Neurological Association's 141st Annual Meeting.

Upcoming Research and Development Milestones

Prothena's pipeline includes four protein immunotherapy programs.

NEOD001 is a monoclonal antibody for the potential treatment of AL amyloidosis:

- Expect to complete enrollment in the Phase 3 VITAL Amyloidosis Study in the second quarter of 2017

- Expect topline results from the Phase 2b PRONTO study in early 2018

PRX002 is a monoclonal antibody for the potential treatment of Parkinson's disease and related synucleinopathies, and is the primary focus of Prothena's worldwide collaboration with Roche:

- Expect topline results from Phase 1b multiple ascending dose study in patients with Parkinson's disease in November 2016

PRX003 is a monoclonal antibody for the potential treatment of inflammatory diseases, including psoriasis and psoriatic arthritis:

- Expect interim data from the Phase 1b multiple ascending dose, proof-of-biology study in patients with psoriasis by mid-2017
- Expect full topline results from the Phase 1b multiple ascending dose, proof-of-biology study in patients with psoriasis in the second half of 2017

PRX004 is a monoclonal antibody for the potential treatment of ATTR amyloidosis:

- Expect to advance PRX004 into clinical development in late 2017 - early 2018

Third Quarter and First Nine Months of 2016 Financial Results

Prothena reported a net loss of $43.2 million and $111.2 million for the third quarter and first nine months of 2016, respectively, as compared to a net loss of $23.0 million and $56.5 million for the third quarter and first nine months of 2015, respectively. Net loss per share for the third quarter and first nine months of 2016 was $1.26 and $3.25, respectively, as compared to a net loss per share of $0.73 and $1.89 for the third quarter and first nine months of 2015, respectively.

Prothena reported total revenue of $0.3 million and $0.9 million for the third quarter and first nine months of 2016, respectively, as compared to total revenue of $0.4 million and $1.3 million for the third quarter and first nine months of 2015, respectively. The decrease in revenue for the third quarter and first nine months of 2016 was primarily due to lower revenue from Prothena's collaboration agreement with Roche.

Research and development (R&D) expenses totaled $26.8 million and $79.7 million for the third quarter and first nine months of 2016, respectively, as compared to $17.2 million and $40.5 million for the third quarter and first nine months of 2015, respectively. The increase in R&D expenses for the third quarter and first nine months was primarily due to increased expenses for product manufacturing, clinical trials and personnel cost. R&D expenses included non-cash share-based compensation expense of $2.0 million and $5.2 million for the third quarter and first nine months of 2016, respectively, as compared to $1.2 million and $3.0 million for the third quarter and first nine months of 2015, respectively.

General and administrative (G&A) expenses totaled $16.1 million and $31.5 million for the third quarter and first nine months of 2016, respectively, as compared to $5.9 million and $16.5 million for third quarter and first nine months of 2015, respectively. The increase in G&A expenses for the third quarter and first nine months was primarily due to increases in personnel costs (including $7.7 million of non-cash share-based compensation expense related to the accelerated vesting of stock options and payments due to the estate of our former CEO, Dr. Schenk, upon his passing). G&A expenses included non-cash share-based compensation expense of $9.5 million and $14.5 million in the third quarter and first nine months of 2016, respectively (including $6.5 million of non-cash share-based compensation expense related to the accelerated vesting of stock options upon the passing of our former CEO), as compared to $1.8 million and $4.2 million in the third quarter and first nine months of 2015, respectively.

Total non-cash share-based compensation expense was $11.4 million and $19.7 million for the third quarter and first nine months of 2016, respectively, as compared to $3.0 million and $7.1 million for the third quarter and first nine months of 2015, respectively.

As of September 30, 2016, Prothena had $412.6 million in cash, cash equivalents and restricted cash and no debt.

As of October 21, 2016, Prothena had approximately 34.5 million ordinary shares outstanding.

Based on build-to-suit accounting, the Company will recognize reimbursements of tenant improvement allowances (TIAs) from our landlord as financing activities rather than operating activities in our cash flow statement. Although this presentation change to financing from operating activities will increase projected full year 2016 net cash burn from operating and investing activities by approximately $14 million (landlord reimbursements of TIAs) to $132 to $142 million, it will not impact our previous guidance of year end cash, cash equivalents and restricted cash of $376 million (midpoint). The

updated estimated full year 2016 net cash burn from operating and investing activities is primarily driven by a net loss of $152 to $169 million, which includes an estimated $24 million of non-cash share-based compensation expense. The net loss estimate has been increased by approximately $7.7 million (including $6.5 million in non-cash share-based compensation expense) primarily driven by expenses recognized in the third quarter upon the passing of our former CEO.

About Prothena

Prothena Corporation plc is a global, late-stage clinical biotechnology company seeking to fundamentally change the course of progressive diseases with its clinical pipeline of novel therapeutic antibodies. Fueled by its deep scientific understanding built over decades of research in protein misfolding and cell adhesion - the root causes of many serious or currently untreatable amyloid and inflammatory diseases - Prothena is establishing a fully integrated research, development and commercial focus and has advanced several drug candidates into clinical studies while pursuing discovery of additional novel therapies. Our pipeline of antibody-based product candidates targets a number of potential indications including AL amyloidosis (NEOD001), Parkinson's disease and other related synucleinopathies (PRX002), inflammatory diseases, including psoriasis and psoriatic arthritis (PRX003), and ATTR amyloidosis (PRX004). For moreinformation, please visit the company's website at www.prothena.com.

Forward-looking Statements

This press release contains forward-looking statements. These statements relate to, among other things, the ability of our cash position to support advancement of a diverse pipeline and commercial capabilities; our contemplated Phase 2 clinical study of PRX003 in psoriatic arthritis; the timing of completing enrollment in the Phase 3 VITAL study and reporting results from the Phase 2b PRONTO study for NEOD001; the timing of reporting results from the Phase 1b multiple ascending dose study for PRX002; the timing of reporting interim data and full results from the Phase 1b multiple ascending dose study for PRX003; the timing of advancing PRX004 into clinical development; our anticipated net cash burn from operating and investing activities for 2016 and expected cash balance at the end of 2016; and our estimated net loss and non-cash share-based compensation expense for 2016. 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 25, 2016 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.

PROTHENA CORPORATION PLC
CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS
(unaudited - amounts in thousands except per share data)

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2016	2015	2016	2015
Collaboration revenue	$ 286	$ 429	$ 884	$ 1,300
Total revenue	286	429	884	1,300
Operating expenses:				
Research and development	26,838	17,185	79,690	40,549
General and administrative	16,136	5,905	31,452	16,476
Total operating expenses	42,974	23,090	111,142	57,025
Loss from operations	(42,688)	(22,661)	(110,258)	(55,725)
Other expense, net	(130)	(77)	(156)	(31)
Loss before income taxes	(42,818)	(22,738)	(110,414)	(55,756)
Provision for income taxes	421	238	791	699
Net loss	$ (43,239)	$ (22,976)	$ (111,205)	$ (56,455)
Basic and diluted net loss per share	$ (1.26)	$ (0.73)	$ (3.25)	$ (1.89)
Shares used to compute basic and diluted net loss per share	34,413	31,441	34,266	29,893

PROTHENA CORPORATION PLC
CONDENSED CONSOLIDATED BALANCE SHEETS
(unaudited - amounts in thousands)

	September 30,	December 31,

	2016	2015
Assets		
Cash and cash equivalents	$ 408,574	$ 370,586
Other current assets	7,064	6,817
Total current assets	415,638	377,403
Property and equipment, net	51,738	3,862
Restricted cash	4,056	—
Other assets	8,150	3,971
Total non-current assets	63,944	7,833
Total assets	$ 479,582	$ 385,236
Liabilities and Shareholders' Equity		
Accrued research and development	16,937	12,794
Other current liabilities	19,971	9,422
Total current liabilities	36,908	22,216
Non-current liabilities:	41,574	2,351
Total liabilities	78,482	24,567
Total shareholders' equity	401,100	360,669
Total liabilities and shareholders' equity	$ 479,582	$ 385,236

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