

PROTEON THERAPEUTICS INC
Form 10-Q
November 25, 2014

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, DC 20549

FORM 10-Q

(Mark One)

☒ QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE
ACT OF 1934

For the quarterly period ended September 30, 2014

or

☐ TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE
ACT OF 1934

For the transition period from _____ to _____

Commission File Number: 001-36323

PROTEON THERAPEUTICS, INC.
(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

20-4580525
(I.R.S. Employer
Identification No.)

200 West Street
Waltham, MA
(Address of principal executive offices)

02451
(Zip Code)

(781) 890-0102
(Registrant's telephone number, including area code)

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☐ No ☒

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Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes ☒ No ☐

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Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See definitions of “large accelerated filer,” “accelerated filer” and “smaller reporting company” in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer ☐

Accelerated filer ☐

Non-accelerated filer ☒ (Do not check if a smaller reporting company)

Smaller reporting company ☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ☐ No ☒

As of November 24, 2014, there were 16,449,164 shares of the registrant’s common stock, par value \$0.001 per share, outstanding.

PROTEON THERAPEUTICS, INC.

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CAUTIONARY REGARDING FORWARD-LOOKING STATEMENTS

This Quarterly Report on Form 10-Q contains forward-looking statements, which reflect our current views with respect to, among other things, our operations and financial performance. All statements other than statements of historical facts contained in this Quarterly Report on Form 10-Q are forward-looking statements. You can identify these forward-looking statements by the use of words such as "outlook," "believes," "expects," "potential," "continues," "may," "will," "should," "seeks," "approximately," "predicts," "intends," "plans," "estimates," "anticipates" or the negative version of these words or other comparable words. These forward-looking statements are subject to various risks and uncertainties. Accordingly, there are or will be important factors that could cause actual outcomes or results to differ materially from those indicated in these statements. These forward-looking statements include, but are not limited to, statements about:

- the timing of results of our ongoing and planned clinical trials for PRT-201;
- our estimates regarding the amount of funds we require to complete our two planned Phase 3 clinical trials for PRT-201;
 - our estimates regarding the funds required to fund operations into 2018;
 - our estimate of when we will require additional funding;
 - our plans to commercialize and bring PRT-201 to market;
- the timing of, and our ability to, obtain and maintain regulatory approvals for our product candidates, including PRT-201;
- the timing of a clinical trial of PRT-201 in Europe, results and submission of a Marketing Authorization Application;
 - our interpretation of the data from our completed Phase 2 trial for PRT-201;
- the rate and degree of market acceptance and clinical utility of any approved product candidate and the general market for the prevention of vascular access failure;
- the potential benefits of strategic partnership agreements and our ability to enter into selective strategic partnership arrangements;
 - our ability to quickly and efficiently identify and develop product additional candidates;
 - our commercialization, marketing, distribution and manufacturing capabilities and strategy and expenses;
 - timing to recruit and expand our employment base and sales force, both in and outside the United States;
 - our research and development expenses;
 - the costs associated with preparation for commercial operations;
 - the costs associated with being a public company;
 - our intellectual property position;
 - our plans to seek patent protection in available countries;
 - our expectations that PRT-201 will qualify for a 12 year period of exclusivity;
- our estimates regarding expenses, future revenues, capital requirements, the sufficiency of our current and expected cash resources and our need for additional financing and plans for additional financing;
 - our reliance on third parties as suppliers and manufactures;
 - our plans to build compliance, financial and operating infrastructure after Phase 3 completion;
 - our plans to improve existing, and implement new, systems to manage our business;
 - the timing to register shares under our employee benefit plans;
 - future payments of dividends;
 - the impact of accounting policies;
 - the impact of changes in interest rates; and
 - exposure to foreign currency exchange risks.

All forward-looking statements in this Quarterly Report on Form 10-Q involve known and unknown risks, uncertainties and other factors that may cause our actual results, performance or achievements to be materially

different from any future results, performance or achievements expressed or implied by these forward-looking statements. Factors that may cause actual results to differ materially from current expectations include, among other things, those listed under Part II, Item 1A. Risk Factors, and elsewhere in this Quarterly Report on Form 10-Q. These factors should not be construed as exhaustive and should be read in conjunction with the other cautionary statements that are included in this Quarterly Report on Form 10-Q. Given these uncertainties, you should not place undue reliance on these forward-looking statements. Except as required by law, we assume no obligation to update or revise these forward-looking statements for any reason, even if new information becomes available in the future.

This Quarterly Report on Form 10-Q also contains estimates, projections and other information concerning our industry, our business, and the markets for certain medical conditions, including data regarding the estimated size of those markets, and the incidence and prevalence of certain medical conditions. Information that is based on estimates, forecasts, projections, market research or similar methodologies is inherently subject to uncertainties and actual events or circumstances may differ materially from events and circumstances reflected in this information. Unless otherwise expressly stated, we obtained this industry, business, market and other data from reports, research surveys, studies and similar data prepared by market research firms and other third parties, industry, medical and general publications, government data and similar sources.

NOTE REGARDING STOCK SPLIT

Unless otherwise indicated, all information in these consolidated financial statements gives retrospective effect to 1-for-15.87 reverse stock split of the Company's common stock that was effected on October 6, 2014. All share, share equivalent and per share amounts presented herein have been adjusted to reflect the reverse stock split. The ratios by which shares of preferred stock are convertible into shares of Common Stock have been adjusted to reflect the effects of the reverse stock split. Shares of Common Stock reserved for future issuance have been presented on an as converted basis and the consolidated financial statements disclose the adjusted conversion ratios.

PART I—FINANCIAL INFORMATION

Item 1. Financial Statements

Proteon Therapeutics, Inc.
Consolidated Balance Sheets
(in thousands, except share and per share data)
(Unaudited)

	September 30, 2014	December 31, 2013
Assets		
Current assets:		
Cash and cash equivalents	\$ 3,239	\$ 2,793
Available-for-sale investments	18,447	2,359
Prepaid expenses	168	61
Other current assets	27	78
Short-term deposits	39	39
Total current assets	21,920	5,330
Property and equipment, net	86	62
Deferred tax asset	-	267
Other non-current assets	2,173	-
Total assets	\$ 24,179	\$ 5,659
Liabilities, redeemable convertible preferred stock and stockholders' deficit		
Current liabilities:		
Convertible notes, including accrued interest of \$0 and \$112 as of September 30, 2014 and December 31, 2013, respectively	\$ -	\$ 3,727
Derivative liability	-	1,443
Accounts payable	1,048	399
Accrued expenses	1,610	984
Deferred tax liability	-	267
Current portion of deferred revenue from sale of option to acquire company	-	2,948
Total current liabilities	2,658	9,768
Non-current liabilities:		
Investors' rights/obligations	11,903	-
Total liabilities	14,561	9,768
Commitments and contingencies	-	-
Redeemable convertible preferred stock:		
Series A redeemable convertible preferred stock, \$0.001 par value, 22,638,465 shares authorized, issued, and outstanding at September 30, 2014 and December 31, 2013; aggregate liquidation preference of \$12,288 and \$22,638 at September 30, 2014 and December 31, 2013, respectively	35,416	34,230
Series A-1 redeemable convertible preferred stock, \$0.001 par value, 10,909,091 shares authorized, issued, and outstanding at September 30, 2014 and December 31, 2013; aggregate liquidation preference of \$6,514 and \$12,000 at September 30, 2014 and December 31, 2013, respectively	18,003	17,374
Series B redeemable convertible preferred stock, \$0.001 par value, 20,754,461 shares authorized, issued, and outstanding at September 30, 2014 and December 31, 2013; aggregate liquidation preference of \$12,955 and \$23,867 at September 30, 2014 and	29,083	27,401

December 31, 2013, respectively		
Series C redeemable convertible preferred stock, \$0.001 par value, 17,550,758 shares authorized, 13,202,932 shares issued, and outstanding at September 30, 2014 and December 31, 2013; aggregate liquidation preference of \$8,241 and \$15,183 at September 30, 2014 and December 31, 2013, respectively	18,265	17,400
Series D redeemable convertible preferred stock, \$0.001 par value, 86,789,527 and 0 shares authorized, 52,813,827 and 0 shares issued, and outstanding at September 30, 2014 and December 31, 2013, respectively; aggregate liquidation preference of \$31,089 and \$0 at September 30, 2014 and December 31, 2013, respectively	25,402	-
Stockholders' equity (deficit):		
Common stock, \$0.001 par value, 205,926,290 and 100,370,203 shares authorized at September 30, 2014 and December 31, 2013, respectively; 240,614 and 239,905 shares issued and outstanding at September 30, 2014 and December 31, 2013, respectively	-	-
Additional paid-in capital	-	-
Accumulated deficit	(116,540)	(100,514)
Accumulated other comprehensive loss	(11)	-
Total stockholders' deficit	(116,551)	(100,514)
Total liabilities, redeemable convertible preferred stock and stockholders' deficit	\$ 24,179	\$ 5,659

The accompanying notes are an integral part of these consolidated financial statements.

Proteon Therapeutics, Inc.
Consolidated Statements of Operations and Comprehensive Loss
(in thousands, except share and per share data)
(Unaudited)

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2014	2013	2014	2013
Revenue	\$ 2,948	\$ -	\$ 2,948	\$ -
Operating expenses:				
Research and development	1,773	971	4,558	2,974
General and administrative	1,041	943	2,697	2,360
Total operating expenses	2,814	1,914	7,255	5,334
Income (loss) from operations	134	(1,914)	(4,307)	(5,334)
Other income (expense):				
Interest income (expense), net	10	(171)	(844)	(168)
Other expense	(5,325)	(18)	(5,424)	(13)
Other expense, net	(5,315)	(189)	(6,268)	(181)
Net loss	\$ (5,181)	\$ (2,103)	\$ (10,575)	\$ (5,515)
Unrealized gain (loss) on available-for-sale investments	12	(1)	(11)	(1)
Comprehensive loss	\$ (5,169)	\$ (2,104)	\$ (10,586)	\$ (5,516)
Reconciliation of net loss to net loss attributable to common stockholders				
Net loss	\$ (5,181)	\$ (2,103)	\$ (10,575)	\$ (5,515)
Accretion of redeemable convertible preferred stock to redemption value	(2,277)	(1,540)	(5,686)	(4,579)
Net loss attributable to common stockholders	\$ (7,458)	\$ (3,643)	\$ (16,261)	\$ (10,094)
Net loss per share attributable to common stockholders - basic and diluted	\$ (31.03)	\$ (15.60)	\$ (67.65)	\$ (43.21)
Weighted-average number of common shares used in net loss per share attributable to common stockholders - basic and diluted	240,375	233,586	240,375	233,586

The accompanying notes are an integral part of these consolidated financial statements.

Proteon Therapeutics, Inc.
Consolidated Statements of Cash Flows
(in thousands)
(Unaudited)

	Nine Months Ended September 30,	
	2014	2013
Operating activities		
Net loss	\$ (10,575)	\$ (5,515)
Reconciliation of net loss to net cash used in operating activities:		
Depreciation	21	21
Amortization of premium/discount on available-for-sale securities	18	21
Gain on sale of fixed assets	-	(7)
Accretion of discount & debt issuance cost of convertible notes payable	742	146
Stock-based compensation	234	126
Change in fair value of investor rights/obligation	5,344	-
Change in fair value of derivative liability	81	20
Changes in:		
Prepaid expenses and other current assets	(2,234)	128
Interest receivable	(13)	15
Accounts payable and accrued expenses	1,275	111
Accrued interest payable	115	25
Deferred revenue from sale of acquisition option to acquire company	(2,948)	-
Net cash used in operating activities	(7,940)	(4,909)
Investing activities		
Purchases of available-for-sale investments	(19,697)	(1,510)
Proceeds from maturities of available for sale investments	3,580	6,550
Purchase of property and equipment	(45)	(1)
Sale of property and equipment	-	7
Net cash (used in) provided by investing activities	(16,162)	5,046
Financing activities		
Proceeds from issuance of Series D preferred stock	25,000	-
Issuance costs for preferred stock	(452)	-
Proceeds from issuance of convertible notes payable	-	4,339
Payments for debt issuance costs	-	(46)
Exercise of stock options	-	19
Early exercise of stock options	-	2
Net cash provided by financing activities	24,548	4,314
Increase in cash and cash equivalents	446	4,451
Cash and cash equivalents, beginning of period	2,793	2,409
Cash and cash equivalents, end of period	\$ 3,239	\$ 6,860
Supplemental disclosure of non-cash investing and financing activities		
Accretion of redeemable convertible preferred stock to redemption value	\$ 5,686	\$ 4,579
Fair value of embedded derivative contained within convertible notes payable	\$ -	\$ 1,443
Conversion of convertible notes, including accrued interest, into Series D Redeemable Convertible Preferred Stock	\$ 4,565	\$ -

The accompanying notes are an integral part of these consolidated financial statements.

Proteon Therapeutics, Inc.
Notes to Consolidated Financial Statements
(amounts in thousands, except share and per share data)
(Unaudited)

1. Organization and operations

The Company

Proteon Therapeutics, Inc. (the “Company”) is an early-stage biopharmaceutical company engaged in the development of elastases to treat the growing medical needs of renal and vascular disease patients. The Company was formed in June 2001 and later was incorporated on March 24, 2006. During 2013, the Company formed a wholly-owned subsidiary, organized in the United Kingdom. As of September 30, 2014, there has been no activity in this subsidiary other than its formation. The Company completed its initial public offering of its common stock, \$0.001 par value per share (“Common Stock”) on October 27, 2014 (the “IPO”). Since inception, the Company has been primarily involved in research and development activities.

The Company devotes substantially all of its efforts to product research and development, initial market development and raising capital. The Company has not generated any product revenue related to its primary business purpose to date and is subject to a number of risks similar to those of other development stage companies, including dependence on key individuals, competition from other companies, the need for development of commercially viable products and the need to obtain adequate additional financing to fund the development of its product candidates. The Company is also subject to a number of risks similar to other companies in the life sciences industry, including regulatory approval of products, uncertainty of market acceptance of products, competition from substitute products and larger companies, the need to obtain additional financing, compliance with government regulations, protection of proprietary technology, dependence on third parties, product liability and dependence on key individuals.

The Company had an accumulated deficit of \$116.5 million as of September 30, 2014. The Company had cash, cash equivalents and investments of \$21.7 million as of September 30, 2014. Including the proceeds from its IPO, which closed on October 27, 2014 (see Note 11), the Company believes that its existing cash and cash equivalents and available-for-sale investments will be sufficient to fund operations and capital expenditures into 2018.

2. Summary of Significant accounting policies

Basis of presentation and use of estimates

The unaudited interim consolidated financial statements of the Company included herein have been prepared, pursuant to the rules and regulations of the Securities and Exchange Commission (the “SEC”). Certain information and footnote disclosures normally included in financial statements prepared in accordance with accounting principles generally accepted in the United States of America have been condensed or omitted from this report, as is permitted by such rules and regulations. Accordingly, these consolidated financial statements should be read in conjunction with the financial statements as of and for the year ended December 31, 2013 and the six months ended June 30, 2014 and notes thereto, included in the Company’s final prospectus dated October 21, 2014 filed with the SEC pursuant to Rule 424(b)(4) on October 22, 2014 (the “Prospectus”).

The unaudited interim consolidated financial statements have been prepared on the same basis as the audited financial statements. In the opinion of the Company’s management, the accompanying unaudited interim consolidated financial statements contain all adjustments which are necessary to fairly present the Company’s financial position as of September 30, 2014, the results of its operations for the three and nine months ended September 30, 2014 and 2013 and its cash flows for the nine months ended September 30, 2014 and 2013. Such adjustments are of a normal and

recurring nature. The results for the three and nine months ended September 30, 2014 are not necessarily indicative of the results for the year ending December 31, 2014, or for any future period.

The preparation of financial statements in conformity with generally accepted accounting principles (“GAAP”) requires management to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. On an ongoing basis, the Company’s management evaluates its estimates, which include, but are not limited to, estimates related to clinical trial accruals, stock-based compensation expense, warrants to purchase redeemable securities, the investors rights obligation and reported amounts of revenues and expenses during the reported period. The Company bases its estimates on historical experience and other market-specific or other relevant assumptions that it believes to be reasonable under the circumstances. Actual results may differ from those estimates or assumptions.

The Company utilized significant estimates and assumptions in determining the fair value of its Common Stock prior to completion of the IPO. The Company utilized various valuation methodologies in accordance with the framework of the 2004 and 2013 American Institute of Certified Public Accountants Technical Practice Aids, Valuation of Privately-Held Company Equity Securities Issued as Compensation, to estimate the fair value of its Common Stock. Each valuation methodology includes estimates and assumptions that require the Company’s judgment. These estimates and assumptions include a number of objective and subjective factors, including external market conditions affecting the biotechnology industry sector, the prices at which the Company sold shares of preferred stock, the superior rights and preferences of securities senior to the Company’s Common Stock at the time and the likelihood of achieving a liquidity event, such as an initial public offering or a sale of the Company. Significant changes to the key assumptions used in the valuations could result in different fair values of Common Stock at each valuation date and materially affect the financial statements.

Deferred initial public offering costs

Deferred public offering costs, which primarily consist of direct, incremental legal and accounting fees related to the IPO, were capitalized within other assets as of September 30, 2014. The Company incurred \$2.8 million in IPO-related costs and in October 2014, these public offering costs were offset against the proceeds upon completion of the IPO.

Fair value of financial instruments

The Company is required to disclose information on all assets and liabilities reported at fair value that enables an assessment of the inputs used in determining the reported fair values. FASB ASC Topic 820, Fair Value Measurement and Disclosures, established a hierarchy of inputs used in measuring fair value that maximizes the use of observable inputs and minimizes the use of unobservable inputs by requiring that the observable inputs be used when available. Observable inputs are inputs that market participants would use in pricing the financial instrument based on market data obtained from sources independent of the Company. Unobservable inputs are inputs that reflect the Company’s assumptions about the inputs that market participants would use in pricing the financial instrument and are developed based on the best information available under the circumstances. The fair value hierarchy applies only to the valuation inputs used in determining the reported or disclosed fair value of the financial instruments and is not a measure of the investment credit quality. Fair value measurements are classified and disclosed in one of the following three categories:

- Level 1—Valuations based on unadjusted quoted prices in active markets for identical assets or liabilities that the Company has the ability to access at the measurement date.
- Level 2—Valuations based on quoted prices for similar assets or liabilities in markets that are not active or for which all significant inputs are observable, either directly or indirectly.
 - Level 3—Valuations that require inputs that reflect the Company’s own assumptions that are both significant to the fair value measurement and unobservable.

Financial instruments measured at fair value on a recurring basis include cash equivalents and government securities. There have been no changes to the valuation methods utilized by the Company during the three and nine months ended September 30, 2014 and 2013. The Company evaluates transfers between levels at the end of each reporting period. There were no transfers of financial instruments between levels during the three and nine months ended September 30, 2014 and 2013.

Recently Issued Accounting Pronouncements

In May 2014, the Financial Accounting Standards Board (the “FASB”) issued a new standard on revenue recognition providing a single, comprehensive revenue recognition model for all contracts with customers. The new revenue standard is based on the principle that revenue should be recognized to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. The new standard is effective beginning January 1, 2017, with no early adoption permitted. The amendments may be applied retrospectively to each prior period presented or retrospectively with the cumulative effect recognized as of the date of initial application. We are currently evaluating the impact of the new guidance on our consolidated financial statements, if any.

In June 2014, the FASB issued authoritative guidance regarding disclosure requirements of development stage companies in GAAP and International Financial Reporting Standards. This newly issued accounting standard removes all incremental financial reporting requirements, including inception-to-date information, for development stage entities. This guidance is effective for annual periods beginning after December 15, 2014. However, the Company adopted this guidance early effective with the publication of its 2013 financial statements.

In August 2014, the FASB issued authoritative guidance regarding on determining when and how reporting entities must disclose going-concern uncertainties in their financial statements, including requiring management to perform interim and annual assessments of an entity's ability to continue as a going concern within one year of the date of issuance of the entity's financial statements and providing certain disclosures if there is substantial doubt about the entity's ability to continue as a going concern. This guidance will be effective for the Company's fiscal year 2016 and for interim periods beginning in the first quarter of fiscal 2017. The Company is still evaluating the impact of this guidance on its financial statement disclosures.

There have been no other material changes to the significant accounting policies previously disclosed in the Company's Prospectus.

3. Financial Instruments

Below is a summary of assets and liabilities measured at fair value as of September 30, 2014 and December 31, 2013:

As of September 30, 2014				
	Quoted Prices in Active Markets (Level 1)	Significant Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Total
Financial assets				
Cash equivalents	\$3,233	\$ -	\$ -	\$3,233
Government securities	18,447	-	-	18,447
Total	\$21,680	\$ -	\$ -	\$21,680
Financial liabilities				
Derivative liability	\$-	\$ -	\$ 11,903	\$11,903
Total	\$-	\$ -	\$ 11,903	\$11,903

As of December 31, 2013				
	Quoted Prices in Active Markets (Level 1)	Significant Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Total
Financial assets				
Cash equivalents	\$2,781	\$ -	\$ -	\$2,781
Government securities	2,359	-	-	2,359
Total	\$5,140	\$ -	\$ -	\$5,140

Financial liabilities

Derivative liability	-	-	1,443	1,443		
Total	\$-	\$	-	\$	1,443	\$1,443

The Company's cash equivalents consist principally of money market funds. Government securities consist principally of government debt securities and money market funds which are classified as available-for-sale. Cash equivalents and government securities are stated at fair value and consist of Level 1 financial instruments in the fair value hierarchy. The Company determines the fair value of its debt security holdings based on pricing from a service provider. The service provider values the securities based on market prices from a variety of industry-standard independent data providers. Such market prices are quoted prices in active markets for identical assets (Level 1 inputs).

The derivative liability and investors rights and obligations are considered Level 3 inputs because their fair value measurement is based, in part, on significant inputs not observed in the market. Any reasonable changes in the assumptions used in the valuation could materially affect the financial results of the Company. The derivative liability was extinguished upon the conversion of the convertible promissory notes (the “Convertible Notes”) into Series D Preferred Stock in May 2014. The Series D investors’ rights and obligations were either exercised or extinguished upon the completion of the Company’s IPO.

4. Convertible Notes

On September 4, 2013, the Company issued Convertible Notes for total aggregate proceeds of \$4.3 million. All of the Convertible Notes were purchased by existing preferred stockholders. The Convertible Notes accrued interest at 8% per annum and matured on or after March 31, 2014 upon written notice from a majority of the outstanding Convertible Note holders.

In connection with the issuance of the Convertible Notes, the Company incurred \$36,000 of financing costs which were recorded in other current assets. The Company also reimbursed the lenders \$10,000 for financing costs which were recorded as a discount on the Convertible Notes. The Convertible Notes included various embedded conversion and redemption features. The Company recorded approximately \$1.4 million as the fair value of the combined embedded derivative liability on September 4, 2013, with a corresponding amount recorded as debt discount. The debt discount has been amortized to interest expense over the life of the Convertible Notes. Amounts recorded for issuance costs and embedded features were amortized to interest expense over the life of the Convertible Notes, approximately seven months. Changes in the estimated fair value of the embedded features were recorded in earnings in the period in which they occurred. As of December 31, 2013, the fair value of the combined embedded derivative liability was \$1.4 million.

On May 13, 2014, the Convertible Notes, including accrued interest, were converted into 10,344,201 shares of Series D Preferred Stock at a conversion price of \$0.4414 per share. In connection with the conversion, the compound embedded derivative liability, which had a fair value of \$1.5 million upon conversion, was written-off. There was no gain or loss recognized upon conversion of the Convertible Notes.

5. Option to acquire the Company

In March 2009, the Company entered into an option agreement with a major pharmaceutical entity that provided an exclusive option to acquire the Company under a pre-negotiated merger agreement. The Company received a \$10.0 million non-refundable payment as consideration for the agreement. The fair value of the option to acquire the Company was estimated at \$7.1 million using the Black-Scholes option-pricing model, which was recorded as additional paid-in capital during 2009. The \$2.9 million difference between the \$10.0 million non-refundable payment and the fair value of the option was recorded as deferred revenue during 2009, representing the value of certain residual rights in the event the acquisition option is not exercised (e.g., a right, under certain circumstances, to license the Company's underlying technology). The acquisition option expired unexercised in 2013. On August 3, 2014, the residual rights under this option agreement lapsed and the \$2.9 million in deferred revenue was recognized as revenue on that date.

6. Redeemable Convertible Preferred Stock

As of September 30, 2014, the total authorized capital stock of the Company was 364,568,592 shares, which included 22,638,465 shares of Series A Preferred Stock, \$0.001 par value per share; 10,909,091 shares of Series A-1 Preferred Stock, \$0.001 par value per share; 20,754,461 shares of Series B Preferred Stock, \$0.001 par value per share; 17,550,758 shares of Series C Preferred Stock, \$0.001 par value per share; and 86,789,527 shares of Series D Preferred Stock, \$0.001 par value per share.

On May 13, 2014, the Company issued 42,469,626 shares of Series D Preferred Stock to new and existing investors at a price of \$0.588656 per share for gross proceeds of \$25.0 million. Immediately upon closing this round of financing, \$4.6 million of Convertible Notes, including \$0.2 million of accrued and unpaid interest, automatically converted into 10,344,201 shares of Series D Preferred Stock at a conversion price of \$0.4414 per share.

The Series D Purchase agreement contemplates the sale in two additional subsequent closings (the “second and third tranches”) of up to 33,975,700 additional shares of the Company’s Series D Preferred Stock for aggregate gross proceeds of \$20.0 million. Both the Company and the tranche right holders have the right to exercise these tranche features. However, the Company’s right is contingent upon the achievement of certain pre-defined milestones and terminates at the closing of an IPO. The holders of the tranche rights have the ability to exercise the second and third tranche rights to purchase additional shares of the Company’s Series D Preferred Stock at any time prior to an IPO and excluding certain black-out dates. The Series D Purchase Agreement also provides to the Series D investors party to the agreement certain individual purchase rights, as outlined in the Company’s Prospectus.

As described above, in connection with the issuance of the Series D Preferred Stock, the holders received rights to purchase additional shares of Series D Preferred Stock at \$0.588656 per share. These investor rights represent freestanding financial instruments, and are accounted for as liabilities. The Company adjusts the carrying value of these investor rights to fair value at each reporting date up to the closing of the tranche financing. Increases or decreases in the fair value of such investor rights are recorded as other income (expense) in the Consolidated Statements of Operations and Comprehensive Loss.

The estimated fair value of the tranche rights was determined upon issuance using a Black-Scholes option pricing model with the following inputs:

Expected term (in years)	1.84	-	3.50
Expected volatility	63.0%	-	86.0%
Risk-free interest rate	0.44%	-	1.12%
Expected dividend yield			0%

At the date of issuance, the investor rights and obligation was recorded at its fair value of \$6.6 million as a liability on the balance sheet. The estimated fair value of the tranche rights was determined as of September 30, 2014 using a Black-Scholes option pricing model with the following inputs:

Expected term (in years)	1.34	-	3.00
Expected volatility	63.0%	-	71.0%
Risk-free interest rate	0.34%	-	1.05%
Expected dividend yield			0%

During the three and nine months ended September 30, 2014, the change in fair value of the investor rights was \$5.3 million and \$5.3 million, respectively, and was recorded as other expense in the Consolidated Statements of Operations and Comprehensive Loss.

The Company incurred approximately \$0.5 million in costs related to the issuance of the Series D Preferred Stock which have been allocated to the shares issued to date and the tranche right liability. The \$0.4 million of issuance costs allocated to the shares issued in May 2014 have been recorded as a discount on the Series D Preferred Stock and will be accreted over five years to the earliest redemption date of the Series D Preferred Stock. The remaining \$0.1 million of issuance costs have been allocated to the tranche right liability.

Upon the closing of the Company’s IPO (see Note 11), all outstanding shares of the Company’s preferred stock were automatically converted into an aggregate of 8,651,805 shares of its Common Stock and the Series D preferred stock investors’ rights and obligations were either exercised or extinguished.

7. Common Stock

At September 30, 2014, the Company had authorized 205,926,290 shares of Common Stock, \$0.001 par value per share, of which 240,614 shares were issued and outstanding. The Company has reserved for future issuances the following number of shares of Common Stock:

	September 30, 2014	December 31, 2013
Conversion of Series A Preferred Stock	1,700,622	1,426,482
Conversion of Series A-1 Preferred Stock	838,101	687,395
Conversion of Series B Preferred Stock	1,610,383	1,307,771
Conversion of Series C Preferred Stock	1,361,809	1,105,907
Conversion of Series D Preferred Stock	3,327,894	-
Stock-based compensation awards	1,135,415	623,111
Warrants to purchase Common Stock	659,806	659,806
Total	10,634,030	5,810,472

Immediately prior to the closing of the Company's IPO (see Note 11), 498,889 shares of Common Stock were issued upon the exercise of warrants with a weighted-average exercise price of \$4.60 per share.

8. Stock-based compensation

Total stock-based compensation expense is recognized for stock options granted to employees and non-employees and has been reported in the Company's statements of operations as follows (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2014	2013	2014	2013
Research and development	\$ 47	\$ 14	\$ 68	\$ 98
General and administrative	138	7	166	28
Total	\$ 185	\$ 21	\$ 234	\$ 126

The following table summarizes stock option activity for employees and nonemployees:

	Shares	Weighted-Average Exercise Price	Weighted-Average Remaining Contractual Term (years)	Aggregate Intrinsic Value
Outstanding at December 31, 2013	607,017	\$ 2.22	5.2	\$ 1,627
Granted	527,718	\$ 4.92		
Exercised	(709)	\$ 1.27		
Cancelled or forfeited	-	\$ -		
Outstanding at September 30, 2014	1,134,026	\$ 3.49	6.9	\$ 8,716
Exercisable at September 30, 2014	581,438	\$ 2.38	4.5	\$ 5,123
Vested or expected to vest at September 30, 2014	1,067,423	\$ 3.33	6.8	\$ 8,264

9. Income Taxes

Deferred taxes are recognized for temporary differences between the basis of assets and liabilities for financial statement and income tax purposes. The Company has evaluated the positive and negative evidence bearing upon the realizability of its deferred tax assets. Based on the Company's history of operating losses, the Company has concluded that it is more likely than not that the benefit of its deferred tax assets will not be realized. Due to the uncertainty surrounding the realization of the favorable tax attributes in future tax returns, the Company has provided a full valuation allowance against its deferred tax assets. There were no significant income tax provisions or benefits for the three or nine months ended September 30, 2014 and 2013.

10. Net loss per share attributable to common stockholders

The Company computes basic and diluted earnings (loss) per share using a methodology that gives effect to the impact of outstanding participating securities (the “two-class method”). As the three and nine month periods ended September 30, 2014 and 2013 resulted in net losses, there is no income allocation required under the two-class method or dilution attributed to weighted average shares outstanding in the calculation of diluted loss per share.

The following common stock equivalents, presented on an as converted basis, were excluded from the calculation of net loss per share for the periods presented, due to their anti-dilutive effect (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2014	2013	2014	2013
Convertible Preferred stock	7,581	4,254	7,581	4,254
Common stock warrants	660	660	660	660
Outstanding stock options	1,134	607	1,134	607
Convertible notes	-	239	-	239
	9,375	5,760	9,375	5,760

11. Subsequent Events

Reverse stock split

On October 1, 2014, the Board of Directors and, on October 3, 2014, the stockholders approved a 1-for-15.87 reverse stock split of the Company's Common Stock and a proportional adjustment to the existing conversion ratios for each series of preferred stock. The effective date of the reverse stock split was October 6, 2014. Stockholders entitled to fractional shares as a result of the reverse stock split received a cash payment in lieu of receiving fractional shares upon the closing of the IPO. All share, share equivalent and per share amounts presented herein have been adjusted to reflect the reverse stock split. The ratios by which shares of preferred stock are convertible into shares of Common Stock have been adjusted to reflect the effects of the reverse stock split. Shares of Common Stock reserved for future issuance have been presented on an as converted basis and the consolidated financial statements disclose the adjusted conversion ratios.

Initial Public Offering

On October 21, 2014, the Company's registration statement on Form S-1 (File No 333-198777) was declared effective for its IPO, pursuant to which the Company registered the offering and sale of 7,026,500 shares of common stock (including 916,500 shares upon exercise of an option by the underwriters) at a public offering price of \$10 per share for an aggregate offering of \$70.3 million. On October 27, 2014, we completed the sale of 6,110,000 shares of Common Stock and on November 21, 2014, we completed the sale of 916,500 shares of our Common Stock upon the exercise of an option by the Company's underwriters to purchase additional shares.

As a result of the IPO, including the exercise of the underwriter's over-allotment, the Company received net proceeds of approximately \$62.5 million from the sale of 7,026,500 shares of common stock, after deducting approximately \$7.7 million of underwriting discounts and commissions and estimated offering-related expenses payable by the Company.

Immediately prior to the closing of the Company's IPO, 498,889 shares of Common Stock were issued upon the exercise of warrants with a weighted-average exercise price of \$4.60 per share.

Upon the closing of the Company's IPO, all outstanding shares of the Company's preferred stock were automatically converted into an aggregate of 8,651,805 shares of its Common Stock and the Series D investors' rights and obligations were either exercised or extinguished.

2014 Equity Incentive and Stock Purchase Plans

On August 21, 2014, the Board of Directors adopted the Proteon Therapeutics, Inc. 2014 Incentive Plan, the 2014 Employee Stock Purchase Plan and the 2006 Equity Incentive Plan, as amended and restated, and on October 3, 2014, the stockholders approved such plans.

The 2014 Equity Incentive Plan, which became effective immediately prior to effectiveness of the Company's IPO, provides for the grant of incentive stock option and nonstatutory stock options, stock appreciation rights, restricted stock and stock unit awards, performance units, stock grants and qualified performance-based awards. The number of shares initially reserved for issuance under the 2014 Equity Incentive Plan is 704,000 shares of Common Stock and will be increased each January 1 starting in 2015 by an amount equal to the lesser of (i) four percent (4%) of our outstanding Common Stock on a fully diluted basis as of the end of our immediately preceding fiscal year, and (ii) any lower amount determined by our Board of Directors prior to each such January 1.

The 2014 Employee Stock Purchase Plan authorizes the issuance of up to 140,500 shares of Common Stock. The number of shares will be increased each January 1, commencing on January 1, 2015 and ending on (and including) January 1, 2024, by an amount equal to the lesser of (i) one percent (1%) of outstanding shares as of the end of the immediately preceding fiscal year, (ii) 281,000, and (iii) any lower amount determined by our Board of Directors prior to each such January 1.

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operation

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with our unaudited condensed consolidated financial statements and related notes appearing elsewhere in this Quarterly Report on Form 10-Q and the audited financial information and the notes thereto included in our final prospectus for our initial public offering dated October 21, 2014 filed pursuant to Rule 424(b) under the Securities Act of 1933, as amended (the "Securities Act"), with the Securities and Exchange Commission (the "SEC") on October 22, 2014 (the "Prospectus").

Our actual results and timing of certain events may differ materially from the results discussed, projected, anticipated, or indicated in any forward-looking statements. We caution you that forward-looking statements are not guarantees of future performance and that our actual results of operations, financial condition and liquidity, and the development of the industry in which we operate may differ materially from the forward-looking statements contained in this Quarterly Report. In addition, even if our results of operations, financial condition and liquidity, and the development of the industry in which we operate are consistent with the forward-looking statements contained in this Quarterly Report, they may not be predictive of results or developments in future periods.

The following information and any forward-looking statements should be considered in light of factors discussed elsewhere in the Quarterly Report on Form 10-Q, including those risks identified under Part II, Item 1A. Risk Factors.

Overview

We are a late-stage biopharmaceutical company focused on the development of novel, first-in-class pharmaceuticals to address the needs of patients with renal and vascular disease. Our product candidate, PRT-201, is a recombinant human elastase that we are developing to reduce vascular access failure in patients with chronic kidney disease undergoing or preparing for hemodialysis, a lifesaving treatment that cannot be conducted without a functioning vascular access. We believe the data from our completed Phase 2 trial of PRT-201 in patients undergoing creation of an arteriovenous fistula, or AVF, support that a one-time, local application of PRT-201 during AVF surgical placement reduces AVF failure, thereby improving patient outcomes and reducing the burden on patients and the healthcare system. We are not aware of any approved preventative treatments to reduce the failure rate of AVFs. We initiated the first of two Phase 3 trials for PRT-201 in radiocephalic AVFs, our initial indication, in the third quarter of 2014 and expect to initiate the second Phase 3 trial in the first half of 2015.

We commenced business operations in June 2001 and incorporated in March 2006. Our operations to date have been limited to organizing and staffing our company, business planning, raising capital, undertaking preclinical studies and clinical trials of PRT-201, protecting our intellectual property and providing general and administrative support for these operations. To date, we have not generated any product revenue and have primarily financed our operations through the private placement of our equity securities, business development activities, convertible note financings, and government grants. As of September 30, 2014, we had received an aggregate of \$111.9 million of net proceeds comprised of \$94.0 million from the issuance of equity securities, \$7.7 million from the issuance of convertible notes, \$10.0 million from business development activities and \$0.2 million from government grants.

On October 27, 2014, we completed the sale of 6,110,000 shares of common stock and on November 21, 2014, we completed the sale of 916,500 shares of common stock upon the exercise of an option by the Company's underwriters to purchase additional shares, in each case at a public offering price of \$10 per share, resulting in net proceeds of \$62.5 million after deducting underwriting discounts and commissions and estimated offering-related expenses paid by us.

As of September 30, 2014, we had an accumulated deficit of \$116.5 million. Our net losses were \$10.6 million and \$5.5 million, for the nine months ended September 30, 2014 and 2013, respectively. We expect to incur significant

expenses and increasing operating losses for the foreseeable future. We expect our research and development expenses to increase as we continue the clinical trials of, and seek regulatory approval for, PRT-201. If we obtain regulatory approval for PRT-201, we expect to incur significant commercialization expenses related to product sales, marketing, manufacturing and distribution. Furthermore, we expect that our general and administrative costs will increase as we grow and operate as a public company. As a result, we will need to generate significant revenue if we are to achieve profitability, and we may never be able to do so.

We believe that our existing cash and cash equivalents and available-for-sale investments as of September 30, 2014, along with proceeds from our initial public offering (the “IPO”), which closed on October 27, 2014, will be sufficient to fund our operations into 2018.

We do not expect to generate revenue from product sales unless and until we successfully complete development and obtain regulatory approval for PRT-201, which we expect will take a number of years and is subject to significant uncertainty. We have no manufacturing facilities and all of our manufacturing activities are contracted out to third parties. Additionally, we currently use third-party clinical research organizations, or CROs, to carry out our clinical development activities and we do not yet have a sales organization. If we obtain regulatory approval for PRT-201, we expect to incur significant commercialization expenses related to product sales, marketing, manufacturing, and distribution. Accordingly, we may seek to fund our operations through public or private equity or debt financings or other sources, including strategic collaborations. We may, however, be unable to raise additional funds or enter into such other arrangements when needed on favorable terms or at all. Our failure to raise capital or enter into such other arrangements as and when needed would have a negative impact on our financial condition and our ability to develop PRT-201 or any additional product candidates, if developed.

Financial Overview

Revenue

To date, our revenue has been derived from revenue related to the expiration of any rights and obligations under the 2009 agreement with a major pharmaceutical entity and from government grants. In the third quarter of 2014 we recognized \$2.9 million of revenue related to the 2009 agreement.

Research and Development Expenses

Research and development expenses consist primarily of costs incurred for the development of PRT-201, which include:

- employee-related expenses, including salaries, benefits, travel and stock-based compensation expense;
- expenses incurred under agreements with CROs and investigative sites that will conduct our clinical trials;
- the cost of acquiring, developing, and manufacturing clinical trial materials;
- costs associated with regulatory operations; and
- facilities, depreciation, and other expenses, which include direct and allocated expenses for rent and maintenance of facilities, insurance, and other supplies.

We expense research and development costs to operations as incurred. We recognize costs for certain development activities, such as clinical trials, based on an evaluation of the progress to completion of specific tasks using data such as patient enrollment, clinical site activations or information provided to us by our vendors.

We cannot determine with certainty the duration and completion costs of the current or future clinical trials or if, when, or to what extent we will generate revenues from the commercialization and sale of PRT-201. We may never succeed in achieving regulatory approval for PRT-201. The duration, costs, and timing of clinical trials and development of PRT-201 will depend on a variety of factors, which include:

- the scope, rate of progress, and expense of our ongoing as well as any additional clinical trials and other research and development activities;
- uncertainties in clinical trial enrollment rate;
- future clinical trial results;
- significant and changing government regulation; and
- the timing and receipt of any regulatory approvals.

A change in any of these factors could mean a significant change in the costs and timing associated with the development of PRT-201. For example, if the Food and Drug Administration, or FDA, or another regulatory authority

were to require us to conduct clinical trials beyond those that we currently anticipate will be required for the completion of clinical development or if we experience significant delays in enrollment in any of our clinical trials, we could be required to expend significant additional financial resources and time on the completion of clinical development. We expect our research and development expenses to increase for the foreseeable future as we continue the development of PRT-201.

General and Administrative Expenses

General and administrative expenses consist principally of salaries and related costs for personnel, including stock-based compensation and travel expenses, in executive and other administrative functions. Other general and administrative expenses also include professional fees for legal, patent prosecution, consulting and accounting services as well as facility related costs. We anticipate increased expenses related to audit, legal, regulatory, and tax-related services associated with maintaining compliance with our The NASDAQ Global Market, or NASDAQ, listing requirements and the SEC requirements, director and officer insurance premiums, and investor relations costs associated with being a public company.

Additionally, if and when we believe a regulatory approval of PRT-201 appears likely, we anticipate that we will be required to increase our salary and personnel costs and other expenses as a result of our preparation for commercial operations.

Interest Income (Expense), Net

Interest income (expense), net, consists of interest incurred on debt instruments, amortized deferred financing costs and amortized debt discount, as offset by any interest income earned on our cash, cash equivalents and marketable securities. The debt discount primarily consists of the fair value of the bifurcated features embedded in the convertible notes issued in September 2013. As of September 30, 2014, the debt discount had been fully amortized to interest expense.

Other Expense, Net

Other income / expense consists of gain / losses realized by the sale of fixed assets as well as changes in fair market value of the derivative liabilities associated with the convertible notes and the investor rights and obligations issued in connection with the Series D Preferred Stock. The derivative liability was extinguished upon the conversion of the convertible notes into Series D Preferred Stock in May 2014. The investors' rights and obligations were either exercised or extinguished upon the completion of the Company's IPO.

Accretion of Preferred Stock

Subsequent to the May 2014 Series D convertible preferred stock financing, our shares of preferred stock are redeemable beginning in 2019 at their original issuance price plus any declared or accrued but unpaid dividends upon written election of the preferred stockholders in accordance with the terms of our certificate of incorporation. Accretion of preferred stock reflects the accretion of issuance costs and cumulative dividends on our preferred stock based on their respective redemption values. On October 27, 2014, we closed our IPO and all shares of preferred stock were converted into 8,651,805 shares of our common stock. No accretion of preferred stock will be recorded after this date as no shares of preferred stock will be outstanding.

Critical Accounting Policies and Significant Judgments and Estimates

We believe that several accounting policies are important to understanding our historical and future performance. We refer to these policies as critical because these specific areas generally require us to make judgments and estimates about matters that are uncertain at the time we make the estimate, and different estimates—which also would have been reasonable—could have been used. The preparation of financial statements in conformity with U.S. generally accepted accounting principles, or GAAP, requires us to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. On an ongoing basis, we evaluate estimates, which include, but are not limited to, estimates related to clinical trial accruals, stock-based compensation expense, warrants to purchase redeemable securities, and reported amounts of revenues and expenses during the reported period. We base our estimates on historical experience and other market-specific or other relevant assumptions that we believe to be reasonable under the circumstances. Actual results may differ materially from those estimates or assumptions.

There have been no material changes to our accounting policies from those described in our Prospectus filed with the SEC on October 21, 2014. It is important that the discussion of our operating results that follows be read in conjunction with the critical accounting policies disclosed in our Prospectus.

Results of Operations

Comparison of the Three Months Ended September 30, 2014 and 2013

The following table summarizes our results of operations for the three months ended September 30, 2014 and 2013:

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(in thousands)	Three Months Ended September 30, 2014		2013	Period to Period Change
Revenue	\$2,948	\$-		\$2,948
Operating expenses:				
Research and development	1,773	971		802
General and administrative	1,041	943		98
Total operating expenses	2,814	1,914		900
Income (loss) from operations	134	(1,914)		2,048
Other income (expense):				
Interest income (expense), net	10	(171)		181
Other income (expense)	(5,325)	(18)		(5,307)
Total other income (expense)	(5,315)	(189)		(5,126)
Net loss	\$(5,181)	\$(2,103)		\$(3,078)

Revenue

During the three months ended September 30, 2014, our revenue was \$2.9 million higher as compared to the three months ended September 30, 2013 due to the recognition of \$2.9 million of deferred revenue related to the expiration in August 2014 of any rights and obligations under the aforementioned 2009 agreement with a major pharmaceutical entity.

Research and development expenses

The following table identifies research and development expenses on both an external and internal basis for the three months ended September 30, 2014 and 2013:

(in thousands)	Three Months Ended September 30, 2014		2013	Period- to- Period Change
External PRT-201 research and development expenses	\$ 1,176	\$ 491		\$ 685
Internal research and development expenses	\$ 597	\$ 480		117
Total research and development expenses	\$ 1,773	\$ 971		\$ 802

During the three months ended September 30, 2014, our total research and development expenses increased by \$0.8 million compared to the three months ended September 30, 2013 primarily due to \$0.9 million in increased external clinical expenses related to our ongoing radiocephalic AVF Phase 3 clinical trial partially offset by \$0.2 million in decreased external manufacturing, process development and quality assurance expenses related to preparation for our radiocephalic AVF Phase 3 clinical trial performed in the three months ended September 30, 2013. Our internal research and development expenses increased by \$0.1 million in the three months ended September 30, 2014 as compared to the three months ended September 30, 2013 due primarily to personnel costs.

General and Administrative Expenses

During the three months ended September 30, 2014, our total general and administrative expenses were \$0.1 million higher as compared to the three months ended September 30, 2013 due to additional overhead and personnel costs in

the three months ended September 30, 2014 of \$0.1 million to support our on-going corporate activities.

Other Expense, Net

During the three months ended September 30, 2014, other expenses increased by \$5.3 million as compared to the three months ended September 30, 2013 due to the \$5.3 million expense related to the change in fair market value of the Series D preferred stock investor rights obligation.

Interest Expense, Net

During the three months ended September 30, 2014, interest expense, net decreased by \$0.2 million as compared to the three months ended September 30, 2013 primarily due to the interest expense on our convertible notes which were extinguished in May 2014.

Comparison of the Nine Months Ended September 30, 2014 and 2013

The following table summarizes our results of operations for the nine months ended September 30, 2014 and 2013:

(in thousands)	Nine Months Ended September 30,		Period to Period Change
	2014	2013	
Revenue	\$2,948	\$-	\$2,948
Operating expenses:			-
Research and development	4,558	\$2,974	\$1,584
General and administrative	2,697	2,360	337
Total operating expenses	7,255	5,334	1,921
Loss from operations	(4,307)	(5,334)	1,027
Other income (expense):			-
Interest income (expense), net	(844)	(168)	(676)
Other income (expense)	(5,424)	(13)	(5,411)
Total other income (expense)	(6,268)	(181)	(6,087)
Net loss	\$(10,575)	\$(5,515)	\$(5,060)

Revenue

During the nine months ended September 30, 2014, our revenue was \$2.9 million higher as compared to the nine months ended September 30, 2013 due to the recognition of \$2.9 million of deferred revenue related to the expiration in August 2014 of any rights and obligations under the aforementioned 2009 agreement with a major pharmaceutical entity.

Research and Development Expenses

The following table identifies research and development expenses on both an external and internal basis for the nine months ended September 30, 2014 and 2013:

(in thousands)	Nine Months Ended September 30,		Period- to- Period Change
	2014	2013	
External PRT-201 research and development expenses	\$ 2,882	\$ 1,413	\$ 1,469
Internal research and development expenses	\$ 1,676	\$ 1,561	115
Total research and development expenses	\$ 4,558	\$ 2,974	\$ 1,584

During the nine months ended September 30, 2014, our total research and development expenses increased by \$1.6 million compared to the nine months ended September 30, 2013 primarily due to \$1.2 million in increased external clinical expenses related to our ongoing radiocephalic AVF Phase 3 clinical trial and \$0.3 million in increased

external manufacturing, process development and quality assurance expenses related to our ongoing radiocephalic AVF Phase 3 clinical trial. Our internal research and development expenses increased by \$0.1 million in the nine months ended September 30, 2014 as compared to the nine months ended September 30, 2013 due primarily to personnel costs.

General and Administrative Expenses

During the nine months ended September 30, 2014, our total general and administrative expenses were \$0.3 million higher as compared to the nine months ended September 30, 2013 due to additional overhead and personnel costs in the nine months ended September 30, 2014 of \$0.3 million to support our on-going corporate activities.

Other Expense, Net

During the nine months ended September 30, 2014, other expenses increased by \$5.4 million as compared to the nine months ended September 30, 2013 due to the \$5.3 million expense related to the change in fair market value of the Series D preferred stock investor rights obligation and \$0.1 million in expense related to the change in fair market value of the derivative liability associated with the convertible notes.

Interest Expense, Net

During the nine months ended September 30, 2014, interest expense, net increased by \$0.7 million as compared to the nine months ended September 30, 2013 due to the interest expense on our convertible notes.

Liquidity and Capital Resources

Overview

Since our inception and through September 30, 2014, we had received \$111.9 million in net proceeds million comprised of \$94.0 million from the issuance of equity securities, \$7.7 million from the issuance of convertible notes, \$10.0 million from business development activities and \$0.2 million from government grants. At September 30, 2014, our cash and cash equivalents and available-for-sale investments totaled \$21.7 million. On October 27, 2014, we completed the sale of 6,110,000 shares of common stock and on November 21, 2014, we completed the sale of 916,500 shares of common stock upon the exercise of an option by the Company's underwriters to purchase additional shares, in each case at a public offering price of \$10 per share, resulting in net proceeds of \$62.5 million after deducting underwriting discounts and commissions and estimated offering-related expense paid by us.

Convertible Note Financings

In April 2013, we entered into a convertible note purchase agreement with some of our existing preferred stockholders whereby we had the option, but not the obligation, to issue convertible notes in the aggregate principal amount of approximately \$4.3 million, subject to meeting at least one of two pre-determined conditions. In September 2013, upon satisfying one of the conditions, we issued the notes, which accrue interest at 8% annum and mature on or after March 31, 2014 upon written notice from a majority of the outstanding note holders.

As further described above and within our financial statements appearing elsewhere in this Quarterly Report, in connection with the issuance of the convertible notes, we recorded \$1.4 million as a discount on the convertible notes related to the estimated fair value of the combined embedded derivative liability and certain issuance costs. The discount was amortized to interest expense over the life of the convertible notes. Changes in the estimated fair value of the combined embedded derivative liability were recorded in earnings in the periods in which they occurred.

On May 13, 2014, upon the closing of our Series D convertible preferred stock financing described below, the convertible notes, in the aggregate amount of approximately \$4.5 million principal and accrued interest automatically converted into 10,344,201 shares of our Series D convertible preferred stock at a conversion price per share of \$0.4414.

Series D Financing

On May 13, 2014, we received net proceeds of approximately \$24.7 million from the issuance of Series D convertible preferred stock to new and existing investors at a price per share of \$0.588656. In aggregate, we issued 52,813,827 shares of Series D preferred stock including 10,344,201 shares for the conversion of \$4.6 million of convertible notes and accrued interest at a conversion price of \$0.4414 per share. As provided by the Series D stock purchase agreement, the investors in the Series D convertible preferred stock have the potential opportunity to invest an additional \$20.0 million in Series D convertible preferred stock at \$0.588656 per share. The investors' rights to purchase additional shares of Series D preferred stock were either exercised or extinguished upon completion of our IPO in October 2014.

Warrants Exercises

Prior to the closing of the Company's IPO, 498,889 shares of the Company's common stock were issued upon the exercise of warrants with a weighted-average exercise price of \$4.60 per share.

Operating Capital Requirements

We expect to incur increasing operating losses for at least the next several years as we: (i) conduct our Phase 3 clinical trials for PRT-201 in radiocephalic AVFs, thereafter seeking marketing approval for PRT-201 in radiocephalic AVFs assuming successful trial outcomes; and (ii) pursue development of PRT-201 for additional indications, including in brachiocephalic AVFs and arteriovenous grafts, or AVGs. We may not be able to complete the development and initiate commercialization of PRT-201 if, among other things, our clinical trials are not successful and the FDA does not approve PRT-201 or does not approve PRT-201 when we expect.

We believe that our cash and cash equivalents and available-for-sale investments as of September 30, 2014, along with the net proceeds from our IPO, which closed on October 27, 2014, will be sufficient to fund our operations into 2018. We believe that these funds will be sufficient to enable us to obtain results from our first Phase 3 clinical trial of PRT-201 in radiocephalic AVFs and to accelerate the commencement of our second Phase 3 trial as well as the chemistry, manufacturing controls activities.

Our forecast of the period of time through which our financial resources will be adequate to support our operations is a forward-looking statement and involves risks and uncertainties, and actual results could vary as a result of a number of factors. We have based this estimate on assumptions that may prove to be wrong, and we could exhaust our available capital resources sooner than we currently expect. Our future funding requirements, both near and long-term, will depend on many factors, including:

- the timing and costs of our planned Phase 3 clinical trials of PRT-201 in radiocephalic AVFs;
- the timing and costs of developing PRT-201 for additional indications;
- the outcome, timing and costs of seeking regulatory approvals;
- the costs of commercialization activities for PRT-201 in radiocephalic AVFs and other indications if we receive marketing approval, including the costs and timing of establishing product sales, marketing, distribution and manufacturing capabilities;
- subject to receipt of marketing approval, revenue received from commercial sales of PRT-201;
- the terms and timing of any future collaborations, licensing, consulting or other arrangements that we may establish;
- the amount and timing of any payments we may be required to make, or that we may receive, in connection with the licensing, filing, prosecution, defense and enforcement of any patents or other intellectual property rights, including royalty payments that we are obligated to pay to Johns Hopkins University pursuant to our assignment agreement related to PRT-201;
- the costs of preparing, filing and prosecuting patent applications, maintaining and protecting our intellectual property rights and defending against intellectual property related claims; and
- the extent to which we in-license or acquire other products and technologies.

Cash Flows

The following table summarizes our sources and uses of cash:

(in thousands)	Nine Months Ended September 30,	
	2014	2013
Net cash used in operating activities	\$ (7,940)	\$ (4,909)
Net cash (used in) provided by investing activities	\$ (16,162)	\$ 5,046
Net cash provided by financing activities	\$ 24,548	\$ 4,314
Net increase in cash and cash equivalents	\$ 446	\$ 4,451

Net cash used in operating activities

Net cash used in operating activities was \$7.9 million during the nine months ended September 30, 2014 compared to \$4.9 million during the nine months ended September 30, 2013. The increase of \$3.0 million in cash used in operating activities in the first nine months of 2014 was primarily driven by an increase in our operating expenses of \$1.9 million and by an increase in working capital balances and an increase in non-cash operating expenses of \$1.1 million as compared to the first nine months of 2013.

Net cash used in investing activities

Net cash used in investing activities was \$16.2 million during the nine months ended September 30, 2014 compared to \$5.0 million provided by investing during the nine months ended September 30, 2013. The increase in cash used in investing activities of \$21.2 million in the first nine months of 2014 was driven by an increase in the purchases of available for sale investments of \$18.2 million combined with a decrease in maturities of short term investments of \$3.0 million compared to the first nine months of 2013.

Net cash provided by financing activities

Net cash provided by financing activities during the nine months ended September 30, 2014 was \$24.5 million compared to \$4.3 million during the first nine months of 2013. This increase was a result of the Series D Preferred Stock issuance in May 2014 of \$24.5 million offset by the \$4.3 million in proceeds from the September 2013 convertible notes offering.

Off-Balance Sheet Arrangements

We did not have during the periods presented, and we do not currently have, any off-balance sheet arrangements, as defined under the applicable regulations of the SEC.

Contractual Obligations and Commitments

There have been no material changes to our contractual obligations and commitments from those described under "Management's Discussion and Analysis of Financial Condition and Results of Operations" included in our Prospectus filed with the SEC on October 21, 2014.

The JOBS Act

In April 2012, the Jumpstart Our Business Startups Act of 2012, or the JOBS Act, was enacted. Section 107 of the JOBS Act provides that an "emerging growth company," or EGC, can take advantage of the extended transition period provided in Section 7(a)(2)(B) of the Securities Act, for complying with new or revised accounting standards. As a result, an EGC can delay the adoption of certain accounting standards until those standards would otherwise apply to private companies. We have irrevocably elected not to avail ourselves of this extended transition period and, as a result, we will adopt new or revised accounting standards on the relevant dates on which adoption of such standards is required for other public companies.

Item 3. Qualitative and Quantitative Disclosures about Market Risk

The market risk inherent in our financial instruments and in our financial position represents the potential loss arising from adverse changes in interest rates. As of September 30, 2014 and December 31, 2013, we had cash equivalents and available-for-sale investments of \$21.7 million and \$5.2 million, respectively, consisting primarily of investments in U.S. Treasuries, certificates of deposit, U.S. government-backed and agency securities. Our primary exposure to market risk is interest rate sensitivity, which is affected by changes in the general level of U.S. interest rates, particularly because our investments are in short-term marketable securities. Our marketable securities are subject to interest rate risk and could fall in value if market interest rates increase. Due to the short-term duration of our investment portfolio and the low risk profile of our investments, an immediate 10% change in interest rates would not have a material effect on the fair market value of our investment portfolio. We have the ability to hold our marketable securities until maturity, and therefore we would not expect our operating results or cash flows to be affected to any significant degree by the effect of a change in market interest rates on our investments.

We contract with CROs and contract manufacturers internationally. Transactions with these providers are predominantly settled in U.S. dollars and, therefore, we believe that we have only minimal exposure to foreign currency exchange risks. We do not hedge against foreign currency risks.

Item 4. Controls and Procedures

Management's Evaluation of our Disclosure Controls and Procedures

We maintain disclosure controls and procedures (as defined in Rules 13a-15(e) or 15d-15(e) under the Securities Exchange Act of 1934, as amended, or the Exchange Act) that are designed to ensure that information required to be disclosed in the reports that we file or submit under the Exchange Act is (1) recorded, processed, summarized, and reported within the time periods specified in the SEC's rules and forms and (2) accumulated and communicated to our management, including our principal executive officer and principal financial officer, as appropriate, to allow timely decisions regarding required disclosure.

As of September 30, 2014, our management, with the participation of our principal executive officer and principal financial officer, evaluated the effectiveness of our disclosure controls and procedures as of the end of the period covered by this Quarterly Report. Our management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving their objectives, and management necessarily applies its judgment in evaluating the cost-benefit relationship of possible controls and procedures. Our principal executive officer and principal financial officer have concluded based upon the evaluation described above that, as of September 30, 2014, our disclosure controls and procedures were effective at the reasonable assurance level.

We continue to review and document our disclosure controls and procedures, including our internal controls and procedures for financial reporting, and may from time to time make changes aimed at enhancing their effectiveness and to ensure that our systems evolve with our business.

Changes in Internal Control Over Financial Reporting

During the nine months ended September 30, 2014, there have been no changes in our internal control over financial reporting, as such term is defined in Rules 13a-15(f) and 15(d)-15(f) promulgated under the Exchange Act, that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

PART II – OTHER INFORMATION

Item 1. Legal Proceedings

In the ordinary course of business, we are from time to time involved in lawsuits, claims, investigations, proceedings, and threats of litigation relating to intellectual property, commercial arrangements and other matters. We are not currently a party to any material litigation or other material legal proceedings. We are subject to certain legal proceedings and claims incidental to the operation of our business. We currently do not anticipate that these matters, if resolved against us, will have a material adverse impact on our financial results.

Item 1A. Risk Factors

Any investment in our common stock involves a high degree of risk. The following risk factors and other information included in this Quarterly Report on Form 10-Q should be carefully considered. The risks and uncertainties described below are not the only ones we face. Additional risks and uncertainties not presently known to us or that we currently believe to be immaterial may also adversely affect our business. We refer you to our

“Cautionary Note Regarding Forward-Looking Statements,” which identifies certain forward-looking statements contained in this report that are qualified by these risk factors. If any of the following risks occur, our business, financial condition, results of operations and future growth prospects could be materially and adversely affected.

Risks Related to Our Financial Condition and Need for Additional Capital

We have a limited operating history and have incurred significant losses since our inception and we anticipate that we will continue to incur losses for the foreseeable future.

We are a clinical-stage biotechnology company, and we have not commercialized any products or generated any revenues from the sale of products. We have incurred losses from operations in each year since our inception, and our net losses were \$8.0 million and \$7.9 million for the years ended December 31, 2012 and 2013, respectively, and \$5.5 million and \$10.6 million for the nine months ended September 30, 2013 and 2014, respectively. As of September 30, 2014, we had an accumulated deficit of \$106.5 million. We do not expect to generate any product revenues in the foreseeable future. We do not know whether or when we will generate revenue or become profitable.

We have devoted most of our financial resources to research and development, including our clinical and preclinical development activities. To date, we have financed our operations primarily through the sale of equity securities and convertible debt. Our current product candidate, PRT-201, is in clinical trials and we have no commercial sales, which, together with our limited operating history, make it difficult to assess our future viability. The amount of our future net losses will depend, in part, on the rate of our future expenditures and our ability to obtain funding through equity or debt financings or strategic collaborations. We have not completed pivotal clinical trials for any product candidate and it will be several years, if ever, before we have PRT-201 or any future product candidates ready for commercialization. Even if we obtain regulatory approval to market PRT-201 or any additional product candidates, our future revenues will depend upon the size of any markets in which PRT-201 or any additional product candidates have received approval, our ability to achieve sufficient market acceptance, reimbursement from third-party payors and other factors.

We expect to continue to incur significant expenses and increasing operating losses for the foreseeable future. We anticipate that our expenses will increase substantially if and as we:

- continue our clinical development and seek regulatory approval of PRT-201, particularly with respect to its lead indication of radiocephalic AVFs;
- commercialize PRT-201 directly in the United States;
- undertake clinical development of PRT-201 in Europe and establish partnerships for commercialization of PRT-201 in all or parts of Europe;
- pursue additional indications for PRT-201 including clinical development of PRT-201 for brachiocephalic AVFs, patients requiring placement of an AVG and peripheral artery disease, or PAD;
- in-license or acquire additional product opportunities and make milestone or other payments under any in-license agreements;
- establish a sales, marketing and distribution infrastructure to commercialize any products for which we may obtain marketing approval;
- maintain, protect and expand our intellectual property portfolio;
- attract and retain skilled personnel;
- create additional infrastructure to support our operations as a public company and our product development and planned future; and
- experience any delays or encounter issues with any of the above.

The net losses we incur may fluctuate significantly from quarter to quarter and year to year, such that a period-to-period comparison of our results of operations may not be a good indication of our future performance. In any particular quarter or quarters, our operating results could be below the expectations of securities analysts or investors, which could cause our stock price to decline.

We will require substantial additional financing to achieve our goals, and a failure to obtain this necessary capital when needed on acceptable terms, or at all, could force us to delay, limit, reduce or terminate our product development, any commercialization efforts or other operations.

Our operations have consumed substantial amounts of cash since inception. As of September 30, 2014, our cash, cash equivalents and investments were \$21.7 million. Our research and development expenses were \$5.9 million and \$4.0 million for the fiscal years ended December 31, 2012 and December 31, 2013, respectively, and \$3.0 million and \$4.6 million for the nine-months ended September 30, 2013 and September 30, 2014, respectively. We believe that we will continue to expend substantial resources for the foreseeable future developing PRT-201 and any additional product candidates. These expenditures will include costs associated with research and development, potentially acquiring new technologies, potentially obtaining regulatory approvals and manufacturing products, as well as marketing and selling products approved for sale, if any. In addition, other unanticipated costs may arise. Because the outcome of our planned and anticipated clinical trials is highly uncertain, we cannot reasonably estimate the actual amounts necessary to successfully complete the development and commercialization of PRT-201 or any additional product candidates.

We began enrolling patients in our first Phase 3 clinical trial of PRT-201 during the third quarter of 2014 for patients undergoing placement of radiocephalic AVFs. Prior to completing enrollment in our first Phase 3 trial, we expect to initiate the second Phase 3 trial. Based on our current operating plan, and absent any future financings or strategic partnerships, we believe that the net proceeds we received in our IPO, which we completed October 27, 2014, and our existing cash and cash equivalents and available-for-sale investments will be sufficient to fund our projected operating expenses and capital expenditure requirements into 2018, allowing us to obtain results from our first Phase 3 clinical trial of PRT-201 in radiocephalic AVFs. This period could be shortened if there are any significant increases beyond our expectations in spending on development programs or more rapid progress of development programs than anticipated. We do not expect our existing capital resources, including the net proceeds from our IPO, to be sufficient to enable us to complete our second Phase 3 trial. Moreover, we do not expect to be able to initiate any other trials, including those for other indications of PRT-201, prior to receiving and reviewing data from our first Phase 3 clinical trial. Furthermore, our operating plan may change as a result of many factors currently unknown to us, and we may need to seek additional funds sooner than planned, through public or private equity or debt financings, government or other third-party funding, marketing and distribution arrangements and other collaborations, strategic alliances and licensing arrangements, or a combination of these approaches. Even if we believe we have sufficient funds for our current or future operating plans, we may seek additional capital if market conditions are favorable or if we have specific strategic considerations.

Any additional fundraising efforts may divert our management from their day-to-day activities, which may adversely affect our ability to develop and commercialize PRT-201 or any additional product candidates. In addition, we cannot guarantee that future financing will be available in sufficient amounts or on terms acceptable to us, or at all. We could also be required to seek funds through arrangements with collaborative partners or otherwise at an earlier stage than would otherwise be ideal and we may be required to relinquish rights to PRT-201 or any additional product candidates, or otherwise agree to terms unfavorable to us, any of which may have a material adverse effect on our business, operating results and prospects.

If we are unable to obtain funding on a timely basis, we may be required to significantly curtail, delay or discontinue one or more of our research or development programs or the commercialization of any approved products or be unable to expand our operations or otherwise capitalize on our business opportunities, as desired, which could materially adversely affect our business, financial condition and results of operations.

We have never generated any revenue from product sales and may never be profitable.

As a company, we have never obtained regulatory approval for, or commercialized, any product candidate. Our ability to generate substantial revenue and achieve profitability depends on our ability, alone or with strategic collaboration partners, to successfully complete the development of, and obtain the regulatory approvals necessary to commercialize PRT-201 or any additional product candidates. We do not anticipate generating revenues from product sales for at least the next several years, if ever. If PRT-201 or any additional product candidates fail in clinical trials or do not

gain regulatory approval, or if PRT-201 or any additional product candidates, if approved, fail to achieve market acceptance, we may never become profitable. Even if we achieve profitability in the future, we may not be able to sustain profitability in subsequent periods. Our ability to generate future revenues from product sales depends heavily on our success in:

- completing clinical development of PRT-201 for one or more indications and research and preclinical and clinical development of any additional product candidates;
- seeking and obtaining regulatory and marketing approvals for PRT-201 if and when we complete clinical trials;
- establishing and maintaining supply and manufacturing relationships with third parties that can provide adequate (in amount and quality) products and services to support clinical development and the market demand for PRT-201, if approved;

- launching and commercializing PRT-201 if we obtain regulatory and marketing approval, either by collaborating with a partner or, if launched independently, by establishing a sales, marketing and distribution infrastructure;
- obtaining and maintaining adequate coverage and reimbursement from third-party payors for PRT-201;
- obtaining market acceptance of PRT-201 as a viable treatment option;
- addressing any competing technological and market developments;
- implementing additional internal systems and infrastructure, as needed;
- identifying and validating new product candidates;
- negotiating favorable terms in any collaboration, licensing or other arrangements into which we may enter;
- maintaining, protecting and expanding our portfolio of intellectual property rights, including patents and know-how;
- developing PRT-201 such that, if approved, it can be commercialized without infringing the intellectual property rights of third parties; and
- attracting, hiring and retaining qualified personnel.

Even if PRT-201 or any additional product candidates that we may develop is approved for commercial sale, we anticipate incurring significant costs associated with commercializing any approved product candidate. Our expenses could increase beyond expectations if we are required by the FDA, the European Medicines Agency, or EMA, or other regulatory agencies, domestic or foreign, to perform clinical trials and other studies in addition to those that we currently anticipate. Even if we are able to generate revenues from the sale of any approved products, we may not become profitable and may need to obtain additional funding to continue operations. Our failure to become and remain profitable would depress the market price of our common stock and could impair our ability to raise capital, expand our business, diversify our product offerings or continue our operations. A decline in the value of our company could also cause you to lose all or part of your investment.

Risks Related to Clinical Development, Regulatory Review and Approval of Our Product

We are substantially dependent on the success of our current product candidate, PRT-201, and cannot guarantee that this product candidate will successfully complete Phase 3 clinical trials, receive regulatory approval or be successfully commercialized.

We currently have no products approved for commercial distribution. We have invested substantially all of our efforts and financial resources in the development of our current product candidate, PRT-201. Our business depends entirely on the successful development and commercialization of PRT-201, in vascular access or additional indications, which may never occur. Our ability to generate revenues in the near term is substantially dependent on our ability to develop, obtain regulatory approval for, and then successfully commercialize PRT-201. We currently generate no revenues from sales of any products, and we may never be able to develop or commercialize a marketable product.

PRT-201 will require additional clinical development, regulatory approval, commercial manufacturing arrangements, establishment of a commercial organization, significant marketing efforts and further investment before we generate any revenues from product sales. We are not permitted to market or promote PRT-201 for any indication before we receive regulatory approval from the FDA or comparable foreign regulatory authorities, and we may never receive such regulatory approval for any of our product candidates. If we do not receive FDA approval for, and successfully commercialize, PRT-201, we will not be able to generate revenue from PRT-201 in the United States in the foreseeable future, or at all. Any significant delays in obtaining approval for and commercializing PRT-201 will have a substantial adverse impact on our business and financial condition.

We have not previously submitted a Biologics License Application, or BLA, to the FDA, or similar drug or biologic approval filings to comparable foreign authorities, for any product candidate, and we cannot be certain that PRT-201 or any additional product candidates will be successful in clinical trials or receive regulatory approval. In our Phase 2 clinical trial, our primary efficacy endpoint of primary unassisted patency did not show statistically significant benefit for the 30 microgram dose versus placebo with regard to primary unassisted patency. While statistical analyses of the subset of patients with radiocephalic AVFs suggested a clinically significant benefit over placebo for that patient subset, those analyses were not prespecified, and we cannot assure you that these results will be repeated in our Phase 3 trials. Following completion of the trial, we analyzed the data in a number of ways in addition to the analysis

specified in the protocol for the Phase 2 clinical trial of PRT-201. For example, we analyzed the data from the subset of patients undergoing placement of a radiocephalic AVF. Analysis of data in a manner or from subsets that were not prespecified in the protocol is typically not sufficient to serve as the basis for regulatory approval and is generally not considered as reliable as analyses which were prespecified in the protocol. Even though our Phase 3 trials will enroll patients undergoing a surgical procedure to create a radiocephalic AVF (i.e., that subset of patients in which PRT-201 showed a greater benefit in our Phase 2 clinical trial), there are risks of failure inherent at any stage of product development, and we may not demonstrate efficacy with regard to the primary endpoint of our ongoing and planned Phase 3 clinical trials, or unexpected adverse events may appear. Further, PRT-201 or any additional product candidates, may not receive regulatory approval even if they are successful in clinical trials. If approved for marketing by applicable regulatory authorities, our ability to generate revenues from PRT-201 will depend on our ability to:

- create market demand for PRT-201 through our own marketing and sales organization, and any other arrangements to promote this product candidate we may otherwise establish;
- hire, train and deploy a specialty hospital sales force, focused primarily on vascular surgeons, to commercialize PRT-201 in the United States;
- manufacture PRT-201 in sufficient quantities and at acceptable quality and manufacturing cost to meet commercial demand at launch and thereafter and establish and maintain agreements with wholesalers, distributors and group purchasing organizations on commercially reasonable terms;
- create partnerships with third parties to promote and sell PRT-201 in any foreign markets where we receive marketing approval;
- obtain and maintain patent protection and regulatory exclusivity for PRT-201;
- launch commercial sales of PRT-201, whether alone or in collaboration with others;
- achieve appropriate reimbursement for PRT-201;
- effectively compete with other products; and
- maintain a continued acceptable safety profile of PRT-201 following launch.

As we continue to develop PRT-201 for other indications, including AVG, brachiocephalic AVF and PAD, or additional product candidates, we will face similar risks and challenges.

Clinical development is a lengthy and expensive process with an uncertain outcome due to many factors. Because the results of early clinical trials are not necessarily predictive of future results, PRT-201 may not have favorable results in later clinical trials or receive regulatory approval.

Clinical development is expensive, difficult to design and implement, takes many years to complete and its outcome is inherently uncertain. Failure can occur at any time during the clinical trial process and PRT-201 is subject to the risks of failure inherent in drug and biological development, including failure to demonstrate efficacy in a pivotal clinical trial or in the patient population we intend to enroll, the occurrence of severe or medically or commercially unacceptable adverse events, failure to comply with protocols or applicable regulatory requirements and determination by the FDA or any comparable foreign regulatory authority that a drug and biological product is not approvable. Trends and results observed in earlier stage clinical trials, particularly trends and results observed through analysis of the data which was not prespecified in the protocol, may not be replicated in later stage clinical trials. For example, as is common with Phase 2 trials, we explored a number of endpoints and analyzed the data from our Phase 2 clinical trial of PRT-201 in a number of ways, some of which were not prespecified. Product candidates such as PRT-201 in Phase 3 clinical trials may fail to demonstrate sufficient efficacy despite having progressed through initial clinical trials, even if certain non-prespecified analyses of primary or secondary endpoints in those early trials showed trends toward efficacy or, in some analyses, statistical significance. Companies frequently suffer significant setbacks in late-stage clinical trials due to lack of efficacy, manufacturing or formulation changes or adverse safety profiles, even after earlier clinical trials have shown promising results. During the course of our clinical development, we modified our PRT-201 finished product formulation for our Phase 3 trials and commercial launch in order to facilitate ease of administration and fill and finish of vials at our 30 microgram dose. Our formulation changes could adversely affect results in our clinical trials, requiring us to make further formulation changes. Additional changes could cause us to delay or repeat clinical trials, and we could incur unexpected costs that would have an adverse effect on our business, operating results and prospects.

The design of a clinical trial can determine whether its results will support approval of a product, and flaws in the design of a clinical trial may not become apparent until the clinical trial is well advanced or completed. Proteon has limited experience in designing clinical trials and may be unable to design and execute a clinical trial to support marketing approval. In addition, preclinical and clinical data are often susceptible to varying interpretations and analyses. Many companies that believed their product candidates performed satisfactorily in preclinical studies and clinical trials have nonetheless failed to obtain marketing approval for the product candidates. Even if we believe that the results of clinical trials for our product candidates warrant marketing approval, the FDA or comparable non-United

States regulatory authorities may disagree and may not grant marketing approval of PRT-201 or any additional product candidates.

In some instances, there can be significant variability in safety or efficacy results between different clinical trials of the same product candidate due to numerous factors, including changes in trial procedures set forth in protocols, differences in the size and type of the patient populations, changes in and adherence to the clinical trial protocols and the rate of dropout among clinical trial participants. Any Phase 3 or other clinical trial that we may conduct may not demonstrate the efficacy and safety necessary to obtain regulatory approval to market PRT-201 or any additional product candidate.

Any delay or failure in our clinical trials would delay our obtaining, or make us unable to obtain, applicable regulatory approvals, which would prevent us from commercializing PRT-201 or any additional product candidates, generating revenues and achieving and sustaining profitability.

If clinical trials of PRT-201 or any additional product candidates fail to demonstrate safety and efficacy to the satisfaction of the FDA and comparable non-United States regulators, we may incur additional costs or experience delays in completing, or ultimately be unable to complete, the development and commercialization of PRT-201 or any additional product candidates.

We are not permitted to commercialize, market, promote or sell any product candidate in the United States without obtaining marketing approval from the FDA. Comparable non-United States regulatory authorities, such as the EMA, impose similar restrictions. We may never receive such approvals. We must have completed extensive preclinical development and clinical trials to demonstrate the safety and efficacy of the product candidate in humans before we will be able to obtain these approvals. Clinical testing is expensive, difficult to design and implement, can take many years to complete and is inherently uncertain as to outcome.

Any inability to successfully complete clinical development could result in additional costs to us and impair our ability to generate revenues from product sales, regulatory and commercialization milestones and royalties. In addition, if (1) we are required to conduct additional clinical trials or other testing of PRT-201 beyond the trials and testing that we contemplate, (2) we are unable to successfully complete clinical trials of PRT-201 or any additional product candidates or other testing, (3) the results of these trials or tests are unfavorable, uncertain or are only modestly favorable, or (4) there are unacceptable safety concerns associated with PRT-201 or any additional product candidates, we, in addition to incurring additional costs, may:

- be delayed in obtaining marketing approval for PRT-201 or any additional product candidates;
- not obtain marketing approval at all;
- obtain approval for indications or patient populations that are not as broad as we intended or desired;
- obtain approval with labeling that includes significant use or distribution restrictions or significant safety warnings, including boxed warnings;
- be subject to additional post-marketing testing or other requirements; or
- be required to remove the product from the market after obtaining marketing approval.

In general, the FDA requires two adequate and well-controlled clinical trials to demonstrate the effectiveness of a product candidate. If the results of our first Phase 3 clinical trial are sufficiently compelling, we intend to meet with the FDA to discuss the possibility of submitting a BLA supported by the single Phase 3 trial and may decide to submit a BLA to the FDA prior to completing the second Phase 3 trial. If we attempt to rely on a single Phase 3 trial to demonstrate the effectiveness of PRT-201, the usual demonstration of the statistical significance in the primary efficacy endpoint ($p=0.05$) is unlikely to be sufficient to obtain approval of PRT-201, and we would likely be required to demonstrate more robust statistical significance. Even with a robust p-value, the FDA may not consider the results of the single Phase 3 trial to be sufficient for BLA filing or approval, and may require that we conduct additional trials.

We may be unable to obtain regulatory approval for PRT-201 or any additional product candidates under applicable regulatory requirements. The denial or delay of any approvals would prevent or delay commercialization and have a material adverse effect on our potential to generate revenue, our business and our results of operations.

PRT-201 and any additional product candidates are subject to extensive governmental regulations relating to, among other things, research, clinical trials, approval, manufacturing, recordkeeping, labeling, storage, advertising, promotion, distribution, import, export and commercialization. In order to obtain regulatory approval for the commercial sale of any product candidate, we must demonstrate through extensive preclinical studies and clinical trials that the product candidate is safe and effective for use in each target indication. Failure to obtain marketing approval for a product candidate will prevent us from commercializing the product candidate. PRT-201 is still in development and is subject to the risks of failure inherent in drug or biologic development. We have not received approval to market any product candidate from regulatory authorities in any jurisdiction. We have only limited experience in conducting and managing the clinical trials, and in submitting and supporting the applications necessary to gain marketing approvals, and we expect to rely on third-party clinical research organizations to assist us in this process. Securing marketing approval also requires the submission of information about the product manufacturing process to, and inspection of manufacturing facilities by, the regulatory authorities. PRT-201 may not be effective, may be only moderately effective or may prove to have undesirable or unintended side effects, toxicities or other characteristics that may preclude our obtaining marketing approval or prevent or limit commercial use. We may gain regulatory approval for PRT-201 or any additional product candidates in some but not all of the territories available or some but not all of the target indications, resulting in limited commercial opportunity for the product, or we may never obtain regulatory approval for PRT-201 or any additional product candidates in any jurisdiction.

The process of obtaining marketing approvals, both in the United States and abroad, is expensive, may take many years if additional clinical trials are required, if approval is obtained at all, and can vary substantially based upon a variety of factors, including the type, complexity and novelty of the product candidates involved. Changes in marketing approval policies during the development period, changes in or the enactment of additional statutes or regulations, or changes in regulatory review for each submitted product application, may cause delays in the approval or rejection of an application. The FDA and foreign regulatory authorities also have substantial discretion in the drug and biologics approval process. The number and types of preclinical studies and clinical trials that will be required for regulatory approval varies depending on the product candidate, the disease or condition that the product candidate is designed to address, and the regulations applicable to any particular product candidate. Approval policies, regulations or the type and amount of clinical data necessary to gain approval may change during the course of a product candidate's clinical development and may vary among jurisdictions, and there may be varying interpretations of data obtained from preclinical studies or clinical trials, either of which may cause delays or limitations in the approval or the decision not to approve an application. Regulatory agencies can delay, limit or deny approval of a product candidate for many reasons, including:

- the FDA or comparable foreign regulatory authorities may disagree with the design or implementation of our clinical trials;
- we may be unable to demonstrate to the satisfaction of the FDA or comparable foreign regulatory authorities that a product candidate is safe and effective for its proposed indications;
- the results of later-stage clinical trials may not meet the level of statistical or clinical significance required by the FDA or comparable foreign regulatory authorities for approval;
- the results of later-stage clinical trials may not confirm the positive results from earlier preclinical studies or clinical trials;
- we may be unable to demonstrate that a product candidate's clinical and other benefits outweigh its safety risks;
- the FDA or comparable foreign regulatory authorities may disagree with our interpretation of data from preclinical studies or clinical trials;
- the data collected from clinical trials of PRT-201 or any additional product candidate may not be sufficient to the satisfaction of the FDA or comparable foreign regulatory authorities to support the submission of a BLA, or other comparable submission in foreign jurisdictions or to obtain regulatory approval in the United States or elsewhere;
- our manufacturing processes or facilities may not be adequate to support approval of our product candidates; or
- regulatory agencies may change their approval policies or adopt new regulations in a manner rendering our clinical data insufficient for approval.

It is possible that neither PRT-201 nor any product candidates we may seek to develop in the future will ever obtain the appropriate regulatory approvals necessary for us or any future collaborators to commence product sales. Any delay in obtaining, or failure to obtain, required approvals would materially adversely affect our ability to generate revenue from the particular product candidate, which likely would result in significant harm to our financial position and adversely impact our stock price.

We may face difficulty in enrolling patients for clinical trials.

We may find it difficult to enroll patients in our clinical trials, which could delay or prevent clinical trials of PRT-201 or any additional product candidates. We have never previously limited a trial to patients undergoing a surgical procedure to create a radiocephalic AVF, as we will do in our ongoing and planned Phase 3 trials. Identifying and qualifying patients to participate in clinical trials of PRT-201 or any additional product candidates are critical to our success. The timing of our clinical trials depends on the speed at which we can recruit patients to participate in testing product candidates. The enrollment timeline for radiocephalic AVF patients is lengthy and there are limited numbers of sites from which we can enroll pre-hemodialysis or hemodialysis patients. If patients are unwilling to participate in our trials because of negative publicity from adverse events or for other reasons, including competitive clinical trials for similar patient populations, the timeline for recruiting patients, conducting trials and obtaining regulatory approval

of potential products may be delayed or prevented. These delays could result in increased costs, delays in advancing our product development, delays in testing the effectiveness of our technology or termination of the clinical trials altogether. We may not be able to identify, recruit and enroll a sufficient number of patients, or those with required or desired characteristics to achieve diversity in a trial, to complete our clinical trials in a timely manner. Patient enrollment is affected by factors including:

- severity of the disease under investigation;
- design of the trial protocol;
- size of the patient population;
- eligibility criteria for the trial in question;
- perceived risks and benefits of the product candidate under study;
- proximity and availability of clinical trial sites for prospective patients;
- availability of competing therapies and clinical trials;
- efforts to facilitate timely enrollment in clinical trials;
- patient referral practices of physicians; and
- ability to monitor patients adequately during and after treatment.

We may not be able to initiate or continue clinical trials if we cannot enroll a sufficient number of eligible patients to participate in the clinical trials required by regulatory agencies. If we have difficulty enrolling a sufficient number of patients to conduct our clinical trials as planned, we may need to delay, limit or terminate ongoing or planned clinical trials, any of which would have an adverse effect on our business.

If we experience any of a number of possible unforeseen events in connection with clinical trials of PRT-201 or any additional product candidates, potential marketing approval or commercialization of PRT-201 or any additional product candidates could be delayed or prevented.

We may experience numerous unforeseen events during, or as a result of, clinical trials that could delay or prevent marketing approval of PRT-201 or any additional product candidates, including:

- trials of PRT-201 or any additional product candidates may produce unfavorable or inconclusive results;
- we may decide, or regulators may require us, to conduct additional clinical trials or abandon product development programs;
- our third-party contractors, including those manufacturing PRT-201 or any additional product candidates or components for commercial use or ingredients thereof or conducting clinical trials on our behalf, may fail to comply with regulatory requirements or meet their contractual obligations to us in a timely manner or at all;
- regulators or institutional review boards may not authorize us or our investigators to commence a clinical trial or conduct a clinical trial at a prospective trial site;
- we may have to suspend or terminate clinical trials of PRT-201 or any additional product candidates for various reasons, including a finding that the participants are being exposed to unacceptable health risks, undesirable side effects or other unexpected characteristics of a product candidate;
- regulators or institutional review boards may require that we or our investigators suspend or terminate clinical research for various reasons, including noncompliance with regulatory requirements or their respective standards of conduct, a finding that the participants are being exposed to unacceptable health risks, undesirable side effects or other unexpected characteristics of the product candidate or findings of undesirable effects caused by a chemically or mechanistically similar biologic or biologic candidate;
- we may experience delays in reaching or fail to reach agreement on acceptable clinical trial contracts or clinical trial protocols with prospective trial sites;
- patient enrollment in these clinical trials may be slower than we anticipate and is limited to a select number of sites, which could cause significant delays given the prolonged enrollment period;
- participants may drop out of clinical trials of PRT-201 at a higher rate than we anticipate and we may not be able to obtain the follow up data for the 12 month period planned in our Phase 3 trials;
- patients who enroll in a clinical trial may misrepresent their eligibility to do so or may otherwise not comply with the clinical trial protocol, resulting in the need to drop the patients from the clinical trial, increase the needed enrollment size for the clinical trial beyond the 300 proposed for each Phase 3 trial or may extend the clinical trial's duration;

- the FDA or comparable foreign regulatory authorities may disagree with our clinical trial design or our interpretation of data from preclinical studies and clinical trials;
- the FDA or comparable foreign regulatory authorities may fail to approve or subsequently find fault with the manufacturing processes or facilities of third-party manufacturers with which we enter into agreements for clinical and commercial supplies;
- our finished product that has been manufactured for the PRT-201 Phase 3 trials may be inadequate, or the materials or manufactured product candidates necessary to conduct future clinical trials of PRT-201 or any additional product candidates may be insufficient, inadequate or not available at an acceptable cost, or we may experience interruptions in supply; and
- the approval policies or regulations of the FDA or comparable foreign regulatory authorities may significantly change in a manner rendering our clinical data insufficient to obtain marketing approval.

Product development costs for us will increase if we experience delays in testing or pursuing marketing approvals and we may be required to obtain additional funds to complete clinical trials and prepare for possible commercialization of PRT-201 or any additional product candidates. We do not know whether any clinical trials will begin as planned, will need to be restructured or will be completed on schedule, or at all. Significant clinical trial delays also could shorten any periods during which we may have the exclusive right to commercialize PRT-201 or any additional product candidates or allow our competitors to bring products to market before we do and impair our ability to successfully commercialize PRT-201 or any additional product candidates and may harm our business and results of operations. In addition, many of the factors that cause, or lead to, clinical trial delays may ultimately lead to the denial of marketing approval of PRT-201 or any additional product candidates.

Any product for which we obtain FDA approval will be subject to extensive ongoing regulatory requirements, and Proteon may be subject to penalties if it fails to comply with regulatory requirements or if it experiences unanticipated problems with its products, when and if any of them are approved.

Any product for which we obtain marketing approval, along with the manufacturing processes, post-approval clinical research, labeling, advertising and promotional activities for such product, will be subject to continual requirements of, and review by, the FDA and comparable regulatory authorities. These requirements include submissions of safety and other post-marketing information and reports, registration and listing requirements, current good manufacturing practices, or cGMP, requirements relating to manufacturing, quality control, quality assurance and corresponding maintenance of records and documents, requirements regarding the distribution of samples to physicians and recordkeeping. We must also comply with requirements concerning advertising and promotion for PRT-201 or any additional product candidates for which we obtain marketing approval. Promotional communications with respect to prescription drugs, including biologics, are subject to a variety of legal and regulatory restrictions and must be consistent with the information in the product's approved labeling. Thus, we will not be able to promote any products we develop for indications or uses for which they are not approved.

Even if regulatory approval of a product is granted, the approval will be subject to limitations on the indicated uses for which the product may be marketed and may be subject to other conditions of approval. We and our contract manufacturers could be subject to periodic unannounced inspections by the FDA to monitor and ensure compliance with cGMPs. In addition, approval may contain requirements for costly post-marketing testing and surveillance to monitor the safety or efficacy of the product. Discovery after approval of previously unknown problems with any such products, manufacturers or manufacturing processes, or failure to comply with regulatory requirements, may result in actions such as:

- restrictions on our ability to conduct clinical trials, including full or partial clinical holds on ongoing or planned trials;
- restrictions on such products' manufacturing processes;
- restrictions on the marketing of a product;
- restrictions on product distribution;

- requirements to conduct post-marketing clinical trials;
- untitled or Warning Letters;
- withdrawal of the products from the market;
- refusal to approve pending applications or supplements to approved applications that we submit;
- recall of products;
- fines, restitution or disgorgement of profits or revenue;
- suspension or withdrawal of regulatory approvals;
- refusal to permit the import or export of our products;
- product seizure;
- injunctions; and/or
- imposition of civil or criminal penalties.

Accordingly, assuming we receive marketing approval for PRT-201 or any additional product candidates, we and our contract manufacturers will continue to expend time, money and effort in all areas of regulatory compliance, including manufacturing, production, product surveillance, post-marketing studies and quality control.

PRT-201 may cause undesirable side effects or have other properties that could delay or prevent their regulatory approval, limit the commercial profile of approved labeling, or result in significant negative consequences following any potential marketing approval.

As with many pharmaceutical and biological products, treatment with PRT-201 or any additional product candidates may produce undesirable side effects or adverse reactions or events. These adverse events may occur despite our belief, based on our preclinical and clinical trials to date, that PRT-201 has a safety profile that will support approval if we successfully complete of our planned Phase 3 clinical program. For instance, PRT-201 shows a high degree of structural similarity with other human serine proteases, which are proteins that cut other proteins to activate, inactivate or degrade these other proteins, and it is theoretically possible that if anti-PRT-201 antibodies developed that they could cross-react with one or more of those other proteases because of the structural similarity, and prompt an adverse reaction. However, we have not seen any evidence of such cross-reactivity in our preclinical or clinical trials to date.

Based on our Phase 2 trial, adverse side effects that could occur with treatment with PRT-201 include AVF surgical incision pain, venous stenosis, AVF thrombosis, steal syndrome and hypoesthesia. If any of these adverse events occur in rates or severity exceeding placebo and unacceptable to regulatory authorities, if anti-PRT-201 antibodies develop and are associated with cross-reactivity to other proteases, or unknown serious events emerge, our clinical trials could be suspended or terminated and the FDA, the EMA or other foreign regulatory authorities could order us to cease further development of, or deny approval of, PRT-201 or any additional product candidates for any or all targeted indications, or they could require limitations or onerous warnings on the product label. The product-related side effects could affect patient recruitment or the ability of enrolled patients to complete the trial. If we elect or are required to delay, suspend or terminate any clinical trial of PRT-201 or any additional product candidates, the commercial prospects of such product candidates will be harmed and our ability to generate product revenues from any of these product candidates will be delayed or eliminated. Any of these occurrences may harm our business, financial condition and prospects significantly.

We may not be able to maintain orphan drug designation or obtain or maintain orphan drug exclusivity for PRT-201.

We have obtained orphan drug designation from the FDA for PRT-201. In the United States, under the Orphan Drug Act, the FDA may designate a product as an orphan drug if it is intended to treat a rare disease or condition, which is generally defined as a patient population of fewer than 200,000 individuals in the United States.

Orphan drug exclusivity may be lost if the FDA determines that the request for designation was materially defective or if the manufacturer is unable to assure sufficient quantity of the product to meet the needs of patients with the rare disease or condition.

Even if we obtain orphan drug exclusivity for PRT-201, that exclusivity may not effectively protect the product from competition because different products can be approved for the same condition. Even after an orphan product is approved, the FDA can subsequently approve a product containing the same principal molecular features for the same condition if the FDA concludes that the later product is clinically superior in that it is shown to be safer, more effective or makes a major contribution to patient care.

In response to a recent court decision regarding the plain meaning of the exclusivity provision of the Orphan Drug Act, the FDA may undertake a reevaluation of aspects of its orphan drug regulations and policies. We do not know if, when, or how the FDA may change the orphan drug regulations and policies, and it is uncertain how any changes might affect our business. Depending on what changes the FDA may make to its orphan drug regulations and

policies, our business could be harmed.

We may expend our limited resources to pursue a particular product candidate or indication and fail to capitalize on product candidates or indications that may be more profitable or for which there is a greater likelihood of success.

Because we have limited financial and managerial resources, we have focused on developing one product candidate, PRT-201, and have focused on developing this product candidate for specific indications that we identify as most likely to succeed, in terms of both its regulatory approval and commercialization. As such, we are currently primarily focused on the development of PRT-201 for vascular access, and our Phase 3 trials will be limited to the application of PRT-201 in radiocephalic AVFs.

In the future we intend to pursue additional indications such as the application of PRT-201 in brachiocephalic AVF placement and/or patients undergoing placement of an AVG. As a result, we may forego or delay pursuit of opportunities with other product candidates or for other indications that may prove to have greater commercial potential. Our resource allocation decisions may cause us to fail to capitalize on viable commercial products or profitable market opportunities. Our spending on current and future research and development programs and product candidates for specific indications may not yield any commercially viable products. If we do not accurately evaluate the commercial potential or target market for a particular product candidate, we may relinquish valuable rights to that product candidate through collaboration, licensing or other royalty arrangements in cases in which it would have been more advantageous for us to retain sole development and commercialization rights to such product candidate.

Even if we obtain and maintain approval for PRT-201 or additional product candidates from the FDA, we may never obtain approval for PRT-201 or additional product candidates outside of the United States, which would limit our market opportunities and adversely affect our business.

Even if we obtain approval of a product candidate in the United States by the FDA, such approval does not ensure approval of such product candidate by regulatory authorities in other countries or jurisdictions, and approval by one foreign regulatory authority does not ensure approval by regulatory authorities in other foreign countries or by the FDA. Sales of PRT-201 or any additional product candidates outside of the United States will be subject to foreign regulatory requirements governing clinical trials and marketing approval. Even if the FDA grants marketing approval for a product candidate, comparable regulatory authorities of foreign countries must also approve the manufacturing and marketing of the product candidate in those countries. Approval procedures vary among jurisdictions and can involve requirements and administrative review periods different from, and greater than, those in the United States, including additional preclinical studies or clinical trials. In many countries outside the United States, a product candidate must be approved for reimbursement before it can be approved for sale in that country. In some cases, the price that we intend to charge for our products, if approved, is also subject to approval.

Based on additional data including the data from our Phase 3 clinical trials and assuming sufficient funds become available, we plan to commence a clinical trial of PRT-201 in Europe for patients undergoing placement of radiocephalic AVFs. Prior to enrolling our first patient in Europe, we plan to formally seek guidance from the EMA regarding its requirements for regulatory approval. We expect results from this trial to be available two to three years after the first patient is enrolled. If results of this European trial successfully meet its primary endpoint and depending on the guidance obtained from the EMA, we would expect to submit a Marketing Authorization Application, or MAA, following our receipt of the trial results. Obtaining an approval is a lengthy and expensive process and the EMA has its own procedures for approval of product candidates. Even if a product candidate is approved, the EMA may limit the indications for which the product may be marketed, require extensive warnings on the product labeling or require expensive and time-consuming clinical trials or reporting as conditions of approval. Regulatory authorities in countries outside of the United States and Europe also have requirements for approval of product candidates with which we must comply prior to marketing in those countries. Obtaining foreign regulatory approvals and compliance with foreign regulatory requirements could result in significant delays, difficulties and costs for us and could delay or prevent the introduction of PRT-201 or any additional product candidates in certain countries.

If we are found in violation of federal or state "fraud and abuse" laws or other healthcare laws and regulations, we may be required to pay a penalty and/or be suspended from participation in federal or state healthcare programs, which may adversely affect our business, financial condition and results of operation.

We may also be subject to various federal and state laws pertaining to healthcare "fraud and abuse," including anti-kickback laws and false claims laws. Anti-kickback laws make it illegal for a prescription drug or biologic manufacturer to solicit, offer, receive or pay any remuneration in exchange for, or to induce, the referral of business, including the purchase or prescription of a particular drug or biologic. Due to the breadth of the statutory provisions, it is possible that our practices might be challenged under anti-kickback or other fraud and abuse laws. Moreover, recent

healthcare reform legislation has strengthened these laws. For example, the recently enacted Patient Protection and Affordable Care Act, or ACA, among other things, amends the intent requirement of the federal anti-kickback and criminal healthcare fraud statutes to clarify that a person or entity does not need to have actual knowledge of this statute or specific intent to violate it. In addition, the ACA clarifies that the government may assert that a claim that includes items or services resulting from a violation of the federal anti-kickback statute constitutes a false or fraudulent claim for purposes of the false claims statutes. False claims laws prohibit anyone from knowingly and willingly presenting, or causing to be presented for payment, to government third-party payors (including Medicare and Medicaid) claims for reimbursed drugs, or biologics or services that are false or fraudulent, claims for items or services not provided as claimed, or claims for medically unnecessary items or services. Our activities relating to the sale and marketing of our products may be subject to scrutiny under these laws. Violations of fraud and abuse laws are punishable by criminal and civil sanctions, including fines and civil monetary penalties, the possibility of exclusion from federal healthcare programs (including Medicare and Medicaid) and corporate integrity agreements, which impose, among other things, rigorous operational and monitoring requirements on companies.

Given the significant penalties and fines that can be imposed on companies and individuals if convicted, allegations of violations often result in settlements even if the company or individual being investigated admits no wrongdoing. Settlements often include significant civil sanctions, including fines and civil monetary penalties, and corporate integrity agreements. If the government were to allege or convict us or our executive officers of violating these laws, our business could be harmed. In addition, private individuals have the ability to bring similar actions under the False Claims Act. Our activities could be subject to challenge for the reasons discussed above and due to the broad scope of these laws and the increasing attention being given to them by law enforcement authorities. Further, an increasing number of state laws require manufacturers to make reports to states on pricing and marketing information. Many of these laws contain ambiguities as to what is required to comply with the laws. Given the lack of clarity in laws and their implementation, our reporting actions could be subject to the penalty provisions of the pertinent state authorities.

Similar rigid restrictions are imposed on the promotion and marketing of medicinal products in the European Union and other countries. Laws (including those governing promotion, marketing and anti-kickback provisions), industry regulations and professional codes of conduct often are strictly enforced. Even in those countries where we are not directly responsible for the promotion and marketing of our products, inappropriate activity by our international distribution partners can have adverse implications for us.

We may not be able to comply with requirements of foreign jurisdictions in conducting trials outside of the United States.

To date, we have not conducted any clinical trials outside of the United States. Our ability to successfully initiate, enroll and complete a clinical trial in any foreign country, should we attempt to do so, is subject to numerous risks unique to conducting business in foreign countries, including:

- difficulty in establishing or managing relationships with contract research organizations, or CROs, and physicians;
- different standards for the conduct of clinical trials;
- our inability to locate qualified local consultants, physicians and partners;
- the potential burden of complying with a variety of foreign laws, medical standards and regulatory requirements, including the regulation of pharmaceutical and biotechnology products and treatment; and
- the acceptability of data obtained from trials conducted outside the United States to the FDA in support of a BLA.

Risks Related to Commercialization of Our Product

If we are unable to establish effective marketing and sales capabilities or enter into agreements with third parties to market and sell our product candidates, if they are approved, we may be unable to generate product revenues.

We currently do not have a commercial infrastructure for the marketing, sale and distribution of biological products. If approved, in order to commercialize our products, we must build our marketing, sales and distribution capabilities or make arrangements with third parties to perform these services. We may not be successful in doing so. If PRT-201 is approved by the FDA, we plan to build a specialty hospital sales force in the United States of approximately 75-100 representatives, supported by reimbursement specialists and a medical affairs team. We may seek to further penetrate the U.S. market in the future by expanding our sales force or through collaborations with other pharmaceutical or biotechnology companies or third party manufacturing and sales organizations. If approved for marketing outside the United States, we may commercialize outside the United States with our own specialty hospital sales force and/or with a commercial partner.

As a company we have no prior experience in the marketing, sale and distribution of biological products, and there are significant risks involved in the building and managing of a commercial infrastructure. The establishment and development of our own sales force and related compliance plans to market any products we may develop will be expensive and time consuming and could delay any product launch, and we may not be able to successfully develop

this capability. We, or our future collaborators, will have to compete with other companies to recruit, hire, train, manage and retain marketing and sales personnel. In the event we are unable to develop a marketing and sales infrastructure, we may not be able to commercialize PRT-201 or any additional product candidates, which would limit our ability to generate product revenues. Our ability to generate product revenues would be impaired by:

- our inability to recruit, train, manage and retain adequate numbers of effective sales and marketing personnel;

- the inability of sales personnel to obtain access to vascular surgeons or persuade adequate numbers of vascular surgeons to use PRT-201 or any additional product candidates;
- our inability to effectively oversee a geographically dispersed sales and marketing team; and
- unforeseen costs and expenses associated with creating an independent sales and marketing organization.

Although our current plan is to hire most of our sales and marketing personnel only if PRT-201 is approved by the FDA, we will incur expenses prior to product launch in recruiting this sales force and developing a marketing and sales infrastructure. If the commercial launch of PRT-201 is delayed as a result of FDA requirements or other reasons, we would incur these expenses prior to being able to realize any revenue from sales of PRT-201. Even if we are able to effectively hire a sales force and develop a marketing and sales infrastructure, our sales force and marketing teams may not be successful in commercializing PRT-201 or any additional product candidates.

In the event we are unable to hire a sales force or collaborate with a third-party marketing and sales organization to commercialize any approved product candidates outside the United States, our ability to generate product revenues may be limited. To the extent we rely on third parties to commercialize any products for which we obtain regulatory approval, we may receive less revenues than if we commercialized these products ourselves. In addition, we would have less control over the sales efforts of any other third parties involved in our commercialization efforts.

Even if PRT-201 or any additional product candidates receive regulatory approval, they may fail to achieve the broad degree of physician adoption and use necessary for commercial success.

The commercial success of PRT-201 and any product candidates that we may develop will depend upon the degree of market acceptance by physicians, patients, healthcare payors and others in the medical community. Even if the FDA approves PRT-201 or one or more of our future product candidates, physicians and patients may not accept and use them. Acceptance and use of any of our products will depend upon a number of factors including:

- perceptions by members of the healthcare community, including physicians, about the safety and effectiveness of our products;
- cost-effectiveness of our products relative to any competing products;
- availability of coverage and reimbursement for our products from government or other healthcare payors; and
- effectiveness of marketing and distribution efforts by us and our licensees and distributors, if any.

Because we expect sales of PRT-201, if approved, to generate substantially all of our product revenues for the foreseeable future, the failure of PRT-201 to gain market acceptance would harm our business and would require us to seek additional financing.

PRT-201 or any additional product candidates, if approved, may face significant competition and our failure to effectively compete may prevent us from achieving significant market penetration and expansion.

The biotechnology and pharmaceutical industries are characterized by rapidly advancing technologies, intense competition and a strong emphasis on proprietary products. We face potential competition from many different sources, including major pharmaceutical, specialty pharmaceutical and biotechnology companies, medical device companies, academic institutions, governmental agencies and public and private research institutions. While we believe that PRT-201's features, safety and efficacy, will differentiate it from any competitive products that may become available in the future, we expect to face potential competition from many different sources, including larger and better-funded pharmaceutical, specialty pharmaceutical and biotechnology companies and medical device companies, as well as from academic institutions and governmental agencies and public and private research institutions that may develop potentially competitive products or technologies.

Some of our competitors have significantly greater financial resources and expertise in research and development, manufacturing, preclinical testing, conducting clinical trials, obtaining regulatory approvals and marketing approved products than we do. Smaller or early stage companies may also prove to be significant competitors, particularly through collaborative arrangements with large and established companies.

The key competitive factors affecting the success of PRT-201, if approved, are likely to be its efficacy, safety, convenience, price, and the availability of reimbursement from government and other third party payors. Our commercial opportunity could be reduced or eliminated if our competitors develop and commercialize products that are safer, more effective, more convenient or less expensive than any products that we may develop. Our competitors may also obtain FDA or other regulatory approval for their products more rapidly than we may obtain approval for ours.

We are not aware of any therapeutic products approved in the United States or Europe for the prevention of vascular access failure. We are aware of other therapies in development with companies including Vascular Therapies and Celladon. PRT-201 could face competition from companies developing vascular access technologies, including BioConnect Systems, Caymus Medical, Phraxis, CreatiVasc, and TVA Medical. Other potential competition includes new synthetic grafts, including those that may be developed by companies that currently compete in the graft market, such as W.L. Gore, C.R. Bard and Maquet, as well as tissue engineered grafts, including those in development by Cytograft and Humacyte.

Finally, PRT-201's commercial success could be affected by the development of technologies to improve the outcomes of interventions to restore patency, including stents, stent grafts and drug-eluting balloons.

PRT-201 or any additional product candidates for which we intend to seek approval as biologic products may face competition sooner than anticipated.

With the enactment of the Biologics Price Competition and Innovation Act of 2009, or BPCIA, as part of the ACA, an abbreviated pathway for the approval of biosimilar and interchangeable biological products was created. The abbreviated regulatory pathway establishes legal authority for the FDA to review and approve biosimilar biologics, including the possible designation of a biosimilar as "interchangeable" based on its similarity to an existing brand product. Under the BPCIA, an application for a biosimilar product cannot be approved by the FDA until 12 years after the original branded product was approved under a BLA. The law is complex and is still being interpreted and implemented by the FDA. As a result, its ultimate impact, implementation, and meaning are subject to uncertainty. While it is uncertain when such processes intended to implement BPCIA may be fully adopted by the FDA, any such processes could have a material adverse effect on the future commercial prospects for our biological products.

We believe that PRT-201 or any additional product candidates approved as a biological product under a BLA should qualify for the 12-year period of exclusivity. However, there is a risk that the FDA will not consider PRT-201 or any additional product candidates to be reference products for competing products, potentially creating the opportunity for generic competition sooner than anticipated. Additionally, this period of regulatory exclusivity does not apply to companies pursuing regulatory approval via their own traditional BLA, rather than via the abbreviated pathway. Moreover, the extent to which a biosimilar, once approved, will be substituted for any one of our reference products in a way that is similar to traditional generic substitution for non-biological products is not yet clear, and will depend on a number of marketplace and regulatory factors that are still developing.

If the government or third-party payors fail to provide coverage and adequate coverage and payment rates for PRT-201 or any additional product candidates or if surgeons or hospitals choose not to use PRT-201, our revenue and prospects for profitability will be limited.

In both domestic and foreign markets, sales of our future products will depend in part upon the availability of coverage and reimbursement from third-party payors. The majority of incident and prevalent hemodialysis patients have Medicare coverage and other third-party payors include other government health programs such as Medicaid, managed care providers, private health insurers and other organizations. Coverage decisions may depend upon clinical and economic standards that disfavor new drug products when more established or lower cost therapeutic alternatives are already available or subsequently become available. Assuming coverage is approved, the resulting reimbursement payment rates might not be adequate. Accordingly, PRT-201 or any of our other product candidates, if approved, will face competition from other therapies and drugs for limited financial resources. We may need to conduct post-marketing studies in order to demonstrate the cost-effectiveness of any future products to the satisfaction of outpatient clinics, hospitals, other target customers and their third-party payors. Such studies might require us to commit a significant amount of management time and financial and other resources. Our future products might not ultimately be considered cost-effective. Adequate third-party coverage and reimbursement might not be available to enable us to maintain price levels sufficient to realize an appropriate return on investment in product development.

Third-party payors, whether foreign or domestic, or governmental or commercial, are developing increasingly sophisticated methods of controlling healthcare costs. In addition, in the United States, no uniform policy of coverage and reimbursement for drug products exists among third-party payors. Therefore, coverage and reimbursement for drug products can differ significantly from payor to payor. Further, we believe that future coverage and reimbursement will likely be subject to increased restrictions both in the United States and in international markets. Third-party coverage and reimbursement for our products or product candidates for which we receive regulatory approval may not be available or adequate in either the United States or international markets, which could have a negative effect on our business, results of operations, financial condition and prospects.

Risks Related to Dependence on Third Parties

We and our contract manufacturers are subject to significant regulation with respect to manufacturing our product candidates. The manufacturing facilities on which we rely may not continue to meet regulatory requirements and have limited capacity.

We currently have a relationship with only one supplier, Lonza AG, for the manufacturing of active pharmaceutical ingredient, or API, for PRT-201 for clinical testing purposes, and intend to continue to utilize Lonza as our sole or primary supplier in the future. We have used two companies, Jubilant HollisterStier and Patheon Manufacturing Services Inc. (formerly DSM Pharmaceuticals), to vial and make our PRT-201 finished product. We also expect to rely upon third parties to produce materials required for the commercial production of PRT-201 or any additional product candidates if we succeed in obtaining the necessary regulatory approvals.

All entities involved in the preparation of drugs or biologics for clinical trials or commercial sale, including our existing contract manufacturers, are subject to extensive regulation. Ingredients of a finished therapeutic biologic product approved for commercial sale or used in late-stage clinical trials must be manufactured in accordance with cGMP and equivalent foreign standards. These regulations govern manufacturing processes and procedures (including record-keeping) and the implementation and operation of quality systems to control and assure the quality of investigational products and products approved for sale. Poor control of production processes can lead to the introduction of adventitious agents or other contaminants, or to inadvertent changes in the properties or stability of product candidate that may not be detectable in final product testing. We or our contract manufacturers must supply all necessary documentation in support of a BLA on a timely basis and must adhere to the FDA's good laboratory practices, or GLPs, and cGMP regulations enforced by the FDA through its facilities inspection program. Any failure by our third-party manufacturers to comply with cGMP or failure to scale-up manufacturing processes, including any failure to deliver sufficient quantities of product candidates in a timely manner for the process validation required in connection with a BLA filing, could lead to a delay in, or failure to obtain, regulatory approval of PRT-201 or any additional product candidates. For example, on November 27, 2013, our third-party supplier of finished biological product, Jubilant HollisterStier, received a Warning Letter from the FDA alleging that the company was not complying with cGMPs. We received a letter from the FDA on February 13, 2014, stating that the Warning Letter does not impact the batch of finished product we intend to use for our Phase 3 clinical trials. However, this third party or other third parties could encounter similar difficulties that could impede our clinical trials or commercialization.

Our facilities and quality systems and the facilities and quality systems of some or all of our third-party contractors must also pass a pre-approval inspection for compliance with the applicable regulations as a condition of regulatory approval of PRT-201 or any additional product candidates. In addition, the regulatory authorities may, at any time, audit or inspect a manufacturing facility involved with the preparation of our product candidate or the associated quality systems for compliance with the regulations applicable to the activities being conducted. If these facilities and quality systems do not pass a pre-approval plant inspection from the FDA or a comparable foreign authority, approval of our product candidate by the FDA or the equivalent approvals in other jurisdictions will not be granted until the regulatory authority is satisfied that the facility complies with applicable regulations.

Regulatory authorities also may, at any time following approval of a product for sale, audit our manufacturing facilities or those of our third-party contractors. If any such inspection or audit identifies a failure to comply with applicable regulations or if a violation of our product specifications or applicable regulations occurs independent of such an inspection or audit, we or the relevant regulatory authority may require remedial measures that may be costly and/or time-consuming for us or a third party to implement and that may include the temporary or permanent suspension of a clinical trial or commercial sales or the temporary or permanent closure of a facility. Any such remedial measures imposed upon us or third parties with whom we contract could materially harm our business.

If we or any of our third-party manufacturers fail to maintain regulatory compliance, the FDA can impose regulatory sanctions including, among other things, refusal to approve a pending application for a new drug or biologic product or revocation of a pre-existing approval. If any such event occurs, our business, financial condition and results of operations may be materially harmed.

We rely on third parties to conduct some or all aspects of our product manufacturing, protocol development, research, and preclinical and clinical testing, and these third parties may not perform satisfactorily.

We do not currently, and do not expect in the future, to independently conduct all aspects of our product manufacturing, protocol development, research and monitoring and management of our clinical programs. PRT-201 API is produced by our contract manufacturer, Lonza. PRT-201 finished product is produced by our contract fill/finish provider, Jubilant HollisterStier. Release testing and stability for API and finished product is performed by PPD, Inc. We currently rely, and expect to continue to rely, on third parties with respect to these items. While we will have agreements governing their activities, we will have limited influence over their actual day-to-day performance. Nevertheless, we will be responsible for ensuring that the manufacturing is conducted in accordance with regulatory requirements such as cGMPs. Our reliance on the third parties does not relieve us of our regulatory responsibilities.

Any of these third parties may terminate their engagements with us under the terms of our agreements upon notice to us. If we need to enter into alternative arrangements, our product candidate development activities may be delayed. Our reliance on these third parties for research and development activities reduces our day-to-day control over these activities but does not relieve us of our responsibility to ensure compliance with all required legal, regulatory and scientific standards and any applicable trial protocols. For example, for PRT-201 or any additional product candidates that we develop and commercialize on our own, we will remain responsible for ensuring that each of our clinical trials is conducted in accordance with its protocol and analyzed in accordance with its statistical analysis plan for the clinical trial.

If these third parties do not successfully carry out their contractual duties, meet expected deadlines or conduct our studies in accordance with regulatory requirements or our protocols, we may be delayed in completing, or unable to complete, the clinical trials required to support future approval of PRT-201 or any additional product candidates.

We rely on our manufacturers to purchase from third-party suppliers the materials necessary to produce our product candidate, PRT-201, for our clinical trials. There are a small number of suppliers for certain raw materials that we use to manufacture PRT-201. These suppliers may not sell these raw materials to our manufacturers at the times we need them or on commercially reasonable terms. We do not have any control over the process or timing of the acquisition of these raw materials by our manufacturers. Moreover, we currently do not have any agreements for the commercial production of these raw materials. Although the API and the finished product for each of our Phase 3 trials has already been manufactured and is held in storage, we will need supply of finished product as part of the process validation and for any stability or other tests in connection with a BLA application and also to conduct additional clinical trials, for example for additional PRT-201 indications. Any significant delay in the supply of the ingredients thereof due to the need to replace a third-party manufacturer could considerably delay completion of our clinical trials, product testing and potential regulatory approval of PRT-201 or any additional product candidate as we believe that replacing Lonza as the manufacturer of our API would take one to two years. If our manufacturers or we are unable to purchase these raw materials after regulatory approval has been obtained for our product candidate, our ability to commercially launch and/or generate revenues from the sale of any approved product would be impaired. Reliance on third-party manufacturers entails exposure to risks to which we would not be subject if we manufactured the product candidate ourselves, including:

- failure to negotiate manufacturing agreements with third parties under commercially reasonable terms;
- reduced day-to-day control over the manufacturing process for our product candidates as a result of using third-party manufacturers for all aspects of manufacturing activities;
- reduced control over the protection of our trade secrets and know-how from misappropriation or inadvertent disclosure;
- termination or nonrenewal of manufacturing agreements with third parties in a manner or at a time that may be costly or damaging to us or result in delays in the development or commercialization of our product candidates; and

- disruptions to the operations of our third-party manufacturers or suppliers caused by conditions unrelated to our business or operations, including the bankruptcy of the manufacturer or supplier.

Any of these events could lead to delays in the development of PRT-201 or any additional product candidates, including delays in our clinical trials, or failure to obtain regulatory approval for our product candidates, or it could impact our ability to successfully commercialize PRT-201 or any additional product candidates. Some of these events could be the basis for FDA or other regulatory action, including warning letters, injunction, recall, seizure or total or partial suspension of production. Any of these events could have a material adverse effect on our business.

We rely on third parties to conduct, supervise and monitor our clinical trials. If these third parties do not successfully carry out their contractual duties or meet expected deadlines, we may not be able to obtain regulatory approval for, or commercialize, PRT-201 or any additional product candidates and our business could be substantially harmed.

We rely on CROs and clinical trial sites to ensure our clinical trials are conducted properly and on time. While we will have agreements governing their activities, we will have limited influence over their actual day-to-day performance. Nevertheless, we will be responsible for ensuring that each of our clinical trials is conducted in accordance with the applicable protocol, and legal, regulatory and scientific standards and recognize that our reliance on the CROs does not relieve us of our regulatory responsibilities.

We and our CROs are required to comply with the FDA's good clinical practices, or GCPs, for conducting, recording and reporting the results of clinical trials to assure that the data and reported results are credible and accurate and that the rights, integrity and confidentiality of clinical trial participants are protected. The FDA and comparable foreign regulatory authorities enforce these GCPs through periodic inspections of trial sponsors, principal investigators and clinical trial sites. If we or our CROs fail to comply with applicable GCPs, the clinical data generated in our future clinical trials may be deemed unreliable and the FDA, the EMA, or other foreign regulatory authorities may require us to perform additional clinical trials before approving any marketing applications. Upon inspection, the FDA may determine that our clinical trials did not comply with GCPs. In addition, our future clinical trials will require a sufficient number of test subjects to evaluate the safety and effectiveness of PRT-201 or any additional product candidates. Accordingly, if our CROs fail to comply with these regulations or fail to recruit a sufficient number of patients, we may be required to repeat such clinical trials, which would delay the regulatory approval process.

Our CROs are not our employees, and we are therefore unable to monitor on a day-to-day basis whether or not they devote sufficient time and resources to our clinical and nonclinical programs. These CROs may also have relationships with other commercial entities, including our competitors, for whom they may also be conducting clinical trials or other product development activities that could harm our competitive position. If our CROs do not successfully carry out their contractual duties or obligations, fail to meet expected deadlines, or if the quality or accuracy of the clinical data they obtain is compromised due to the failure to adhere to our clinical protocols or regulatory requirements, or for any other reasons, our clinical trials may be extended, delayed or terminated, and we may not be able to obtain regulatory approval for, or successfully commercialize, PRT-201 or any additional product candidates. If any such event were to occur, our financial results and the commercial prospects for PRT-201 or any additional product candidates would be harmed, our costs could increase, and our ability to generate revenues could be delayed.

If any of our relationships with these third-party CROs terminates, we may not be able to enter into arrangements with alternative CROs or to do so on commercially reasonable terms. Further, switching or adding additional CROs involves additional costs and requires management time and focus. In addition, a transition period may be required when a new CRO commences work. As a result, delays may occur, which could materially impact our ability to meet our desired clinical development timelines. Though we carefully manage our relationships with our CROs, there can be no assurance that we will not encounter challenges or delays in the future or that these delays or challenges will not have a material adverse impact on our business, financial condition and prospects.

We also rely on other third parties to store and distribute our products for the clinical trials that we conduct. Any performance failure on the part of our distributors could delay clinical development or marketing approval of PRT-201 or any additional product candidates or commercialization of our product, if approved, producing additional losses and depriving us of potential product revenue.

We may seek to form partnerships in the future with respect to PRT-201 or any additional product candidates, and we may not realize the benefits of such partnerships.

We may form partnerships, create joint ventures or collaborations or enter into licensing arrangements with third parties for the development and commercialization of PRT-201 or any additional product candidates. We face significant competition in seeking appropriate strategic partners and the negotiation process is time-consuming and complex. Any delays in entering into new strategic partnership agreements related to our product candidates could delay the development and commercialization of our product candidates and reduce their competitiveness even if they reach the market. Moreover, we may not be successful in our efforts to establish a strategic partnership or other collaborative arrangement for any additional product candidates because the potential partner may consider that our research and development pipeline is insufficiently developed to justify a collaborative effort, or that PRT-201 or any additional product candidates and programs do not have the requisite potential to demonstrate safety and efficacy in the target population. Even if we are successful in establishing such a strategic partnership or collaboration, we cannot be certain that, following such a strategic transaction or license, we will be able to progress the development and commercialization of the applicable product candidates as envisioned, or that we will achieve the revenues that would justify such transaction.

Risks Related to Our Intellectual Property

If our efforts to protect our intellectual property related to PRT-201 or any additional product candidates are not adequate, we may not be able to compete effectively in our market.

We rely upon a combination of patents, patent applications, know-how and confidentiality agreements to protect the intellectual property related to our only product candidate, PRT-201, and will use a similar strategy to protect any additional product candidates. The patent position of biotechnology companies is generally uncertain because it involves complex legal and factual considerations. The standards applied by the United States Patent and Trademark Office, or USPTO, and foreign patent offices in granting patents are not always applied uniformly or predictably. For example, there is no uniform worldwide policy regarding patentable subject matter or the scope of claims allowable in biotechnology patents. The patent applications that we own may fail to result in issued patents with claims that cover PRT-201 or any additional product candidates in the United States or in other countries. There is no assurance that all potentially relevant prior art relating to our patents and patent applications has been found, and prior art that is not before the patent examiners, as well as prior art that is before the patent examiners, could be used by a third party to invalidate a patent or could be relied on to prevent a patent from issuing from a pending patent application. Even if patents do successfully issue and even if these patents cover PRT-201 or any additional product candidates, third parties may challenge their validity, enforceability or scope, which may result in our patents being narrowed or invalidated.

Furthermore, even if they are unchallenged, our patents and patent applications may not adequately provide exclusivity for PRT-201 or any additional product candidates, prevent others from designing around our patents with similar products that are outside the scope of our patents, or prevent others from operating in jurisdictions in which we did not pursue patent protection. Any of these outcomes could impair our ability to prevent competition from third parties, which may have an adverse impact on our business.

If patent applications we hold with respect to PRT-201 or any additional product candidates fail to issue, if their breadth or strength of protection is threatened, or if they fail to provide meaningful exclusivity for PRT-201 or any additional product candidates, it could dissuade companies from collaborating with us. We own 20 issued patents and own 26 pending patent applications, most of which cover aspects of PRT-201 or its use. We cannot offer any assurances about which, if any, of the pending patent applications will issue as patents, the breadth of any such patents or any of our currently issued patents, or whether any issued patents will be challenged by third parties or will be found invalid and unenforceable if challenged. Any successful challenge to these patent applications, or patents that may issue from them, or to currently issued patents owned by us, could deprive us of rights necessary for the successful commercialization of PRT-201 or any other product candidate that we may develop. Since patent applications in the United States and most other countries are confidential for a period of time after filing, and some remain so until issued, we cannot be certain that we were the first to file a patent application relating to any particular aspect of a product candidate. Furthermore, if third parties have filed such patent applications, an interference proceeding in the United States can be initiated by these third parties, or by the USPTO itself, to determine who was the first to invent any of the subject matter covered by the patent claims of our patents and patent applications.

In the United States, for patent applications filed prior to March 16, 2013, assuming the other requirements for patentability are met, the first to invent is entitled to the patent, while outside the United States, the first to file a patent application is entitled to the patent. Our currently pending patent applications are examined under the system in place before March 16, 2013. Third parties are allowed to submit prior art prior to the issuance of a patent by the USPTO, and may become involved in reexamination, inter partes review or interference proceedings challenging our patent rights. An adverse determination in any such submission, proceeding or litigation could reduce the scope of, or invalidate, our patent rights, which could adversely affect our competitive position with respect to third parties.

In addition, patents have a limited lifespan. In most countries, the statutory term of a patent is 20 years from the earliest domestic priority date claimed. In the United States, for applications filed after June 7, 1995, the statutory term of a patent is 20 years from earliest non-provisional priority date claimed. Various extensions of patent protection may be available in particular countries; however, in all circumstances, the life of a patent, and the protection it affords, has a limited term. If we encounter delays in obtaining regulatory approvals, the period of time during which we could market a product under patent protection could be reduced. We expect to seek extensions of patent protection where these are available in any countries where we are prosecuting patents. Such possible extensions include those permitted under the Drug Price Competition and Patent Term Restoration Act of 1984 in the United States, which permits up to five years' extension of patent protection. The scope of protection available during an extension of a patent claiming a product is limited to the approved product itself for approved uses, and the scope of protection available during an extension of a patent claiming a method of using a product is limited to the uses claimed in the patent and approved for the product. The actual length of the extension will depend on the amount of patent term lost while the product was in clinical trials and while the BLA was under review by the FDA. However, the applicable authorities, including the FDA and the USPTO in the United States, and any equivalent regulatory authority in other countries, may not agree with our assessment of whether such extensions are available, and may refuse to grant extensions to our patents, or may grant more limited extensions than we request. If this occurs, our competitors may be able to take advantage of our investment in development and clinical trials by referencing our clinical and preclinical data, and then may be able to launch their product earlier than might otherwise be the case.

Any loss of, or failure to obtain, patent protection could have a material adverse impact on our business. We may be unable to prevent competitors from entering the market with a product that is similar to or the same as our products.

Confidentiality agreements with employees and third parties may not prevent unauthorized disclosure of proprietary information.

We seek to protect our proprietary technology and processes, in part, by entering into confidentiality agreements with our employees, consultants, scientific advisors and contractors. We also seek to preserve the integrity and confidentiality of our data and know-how by maintaining physical security of our premises and physical and electronic security of our information technology systems. Nonetheless, despite these precautions, agreements or security measures may be breached, and we may not have adequate remedies for any breach. In addition, our know-how may otherwise become known or be independently discovered by competitors. To the extent that our consultants, contractors or collaborators use intellectual property owned by others in their work for us, disputes may arise as to the rights in related or resulting know-how and inventions.

Enforcing a claim that a third party illegally obtained and is using any of our know-how is expensive and time consuming, and the outcome is unpredictable. In addition, courts outside the United States sometimes are less willing than United States courts to protect know-how. Misappropriation or unauthorized disclosure of our know-how could impair our competitive position and may have a material adverse effect on our business.

We may become involved in lawsuits to protect or enforce our intellectual property, which could be expensive, time consuming and unsuccessful, and which may lead to a finding that our patents are invalid and/or unenforceable.

Competitors may infringe our patents or misappropriate or otherwise violate our intellectual property rights. To counter infringement or unauthorized use, litigation may be necessary to enforce or defend our intellectual property rights, to protect our know-how and/or to determine the validity and scope of our own intellectual property rights. Intellectual property litigation can be expensive and time consuming. Many of our current and potential competitors have the ability to dedicate substantially greater resources to litigate intellectual property rights than we can. Accordingly, despite our efforts, we may not be able to prevent third parties from infringing or misappropriating our intellectual property. Litigation could result in substantial costs and diversion of management resources, which could harm our business and financial results. In addition, in an infringement proceeding, a court may decide that our patents

are invalid or unenforceable, and may refuse to stop the other party from using the technology at issue, including on the grounds that our patents are invalid or unenforceable or do not cover the technology in question. An adverse result in any litigation proceeding could put one or more of our patents at risk of being invalidated, held unenforceable or interpreted narrowly. Furthermore, because of the substantial amount of discovery required in connection with intellectual property litigation, there is a risk that some of our confidential information could be compromised by disclosure during this type of litigation.

Third-party claims of intellectual property infringement or misappropriation may prevent or delay our development and commercialization efforts.

Our commercial success depends in part on our ability to develop, manufacture, market and sell PRT-201 or any additional product candidates, and to use proprietary technologies without infringing the patents and proprietary rights of third parties. There is a substantial amount of litigation and adversarial proceedings, both within and outside the United States, involving patent and other intellectual property rights in the biotechnology and pharmaceutical industries, including patent infringement lawsuits, interferences, oppositions, reexamination, and inter partes review proceedings before the USPTO and corresponding foreign patent offices. Third parties own patent rights both within and outside the U.S. in the fields in which we are developing and may develop PRT-201 or any additional product candidates. As the biotechnology and pharmaceutical industries expand and more patents are issued, the risk increases that PRT-201 or any additional product candidates may be subject to claims of infringement of the patent rights of third parties.

Third parties may assert that we are employing their proprietary technology without authorization. There may be third-party patents or patent applications with claims that may cover PRT-201 or any additional product candidates and/or the use, manufacture, sale and/or offer for sale of PRT-201 or any additional product candidates. We are aware of European Patent No. EP 1 012 307 B1, or the '307 patent, which claims, among other things, autocatalytically cleavable zymogenic precursor of a serine protease wherein a naturally occurring non-autocatalytic cleavage site is replaced in the zymogenic precursor by an autocatalytic cleavage site. The '307 patent expires on August 12, 2018. We currently estimate that the soonest that we will market PRT-201 is after this date.

In some cases, we may have failed to identify relevant third-party patents or patent applications. For example, applications filed before November 29, 2000, and certain applications filed after that date that will not be filed outside the United States remain confidential until patents issue. Except for the preceding exceptions, patent applications in the United States and elsewhere are generally published but, only after a waiting period of approximately 18 months after the earliest filing. Therefore, patent applications covering PRT-201 or future product candidates could have been filed by others without our knowledge. Additionally, pending patent applications which have been published can, subject to certain limitations, be later amended in a manner that could cover PRT-201 or any additional product candidates and/or the use, manufacture, sale and/or offer for sale of PRT-201 or any additional product candidates.

If any valid and enforceable third-party patents were held by a court of competent jurisdiction to cover PRT-201 or any additional product candidates and/or their use, manufacture, sale, and/or offer for sale, the holders of any of these patents may be able to block our ability to develop and commercialize the applicable product candidate until the patent expired or unless we obtain a license. Licenses may not be available on acceptable terms, if at all. Even if we were able to obtain a license, the rights may be nonexclusive, which could result in our competitors gaining access to the same intellectual property. Ultimately, we could be prevented from commercializing a product, or be forced to cease some aspect of our business operations, if, as a result of actual or threatened patent infringement claims, we are unable to enter into licenses on acceptable terms.

Some of our early research of recombinant expression of PRT-201, but not the corresponding development work, utilized some technology under license from a third party. The third party may contend that we use the licensed technology for our commercial recombinant expression of PRT-201. Litigation may be necessary to defend against such a claim. Even if we are successful in defending against such a claim, litigation could result in substantial costs and be a distraction to management. If we are not successful in defending against such a claim, in addition to paying monetary damages, we may have to reconfigure the PRT-201 expression system, which would materially adversely affect our commercial development efforts.

Parties making claims against us may obtain injunctive or other equitable relief, which could effectively block our ability to commercialize PRT-201 or any additional product candidates. We may face a claim of misappropriation if a third party believes that we inappropriately obtained and used trade secrets of that third party. If we are found to have misappropriated a third party's trade secrets, we may be prevented from further using such trade secrets, limiting our ability to develop PRT-201 or any additional product candidates, and we may be required to pay damages.

Defending against claims of patent infringement or misappropriation of trade secrets could be costly and time consuming, regardless of the outcome. Thus, even if we were to ultimately prevail, or to settle at an early stage, any litigation could burden us with substantial unanticipated costs. In addition, litigation or threatened litigation could result in significant demands on the time and attention of our management team, distracting them from the pursuit of other company business. In the event of a successful claim of infringement against us, we may have to pay substantial damages, including treble damages and attorneys' fees for willful infringement, pay royalties, redesign our infringing products or obtain one or more licenses from third parties, which may be impossible or require substantial time and monetary expenditure.

During the course of any patent or other intellectual property litigation, there could be public announcements of the results of hearings, rulings on motions, and other interim proceedings in the litigation. If securities analysts or investors regard these announcements as negative, the perceived value of our products, programs, or intellectual property could be diminished. Accordingly, the market price of our common stock may decline.

If we are unable to adequately protect our proprietary technology, or obtain and maintain issued patents which are sufficient to protect our current product candidate, PRT-201, or any additional product candidates, others could compete against us more directly, which would have a material adverse impact on our business, results of operations, financial condition and prospects.

We strive to protect and enhance the proprietary technologies that we believe are important to our business, including seeking patents intended to cover our products and compositions, their methods of use and any other inventions that are important to the development of our business. We also rely on know-how to protect aspects of our business that are not amenable to, or that we do not consider appropriate for, patent protection.

Our success will depend significantly on our ability to obtain and maintain patent and other proprietary protection for commercially important technology, inventions and know-how related to our business, defend and enforce our current patents and any future patents that may issue, preserve the confidentiality of our know-how and operate without infringing the valid and enforceable patents and proprietary rights of third parties. We also rely on know-how and in-licensing opportunities to develop, strengthen and maintain the proprietary position of PRT-201 or any additional product candidates.

We cannot provide any assurances that any of our pending patent applications will mature into issued patents and, if they do, that such patents or our currently issued patents will include claims with a scope sufficient to protect PRT-201 or any additional product candidates or otherwise provide any competitive advantage. For example, one of our patents that may provide coverage for PRT-201 only covers particular formulations. As a result, this patent would not prevent third-party competitors from creating, making and marketing alternative formulations that fall outside the scope of our patent claims. There can be no assurance that any such alternative formulations will not be equally effective.

Moreover, other parties have developed technologies that may be related or competitive to our approach, and may have filed or may file patent applications and may have received or may receive patents that may overlap or conflict with our patent applications, either by claiming the same methods or formulations or by claiming subject matter that could dominate our patent position. Such third party patent positions may limit or even eliminate our ability to obtain patent protection for certain inventions.

The patent positions of biotechnology and pharmaceutical companies, including our patent position, involve complex legal and factual questions, and, therefore, the issuance, scope, validity and enforceability of any patent claims that we may obtain cannot be predicted with certainty. Patents, if issued, may be challenged, deemed unenforceable, invalidated, or circumvented. United States patents and patent applications may also be subject to interference proceedings, ex parte reexamination, or inter partes review proceedings, and challenges in district court. Patents may be subjected to opposition, revocation proceedings, or comparable proceedings lodged in various foreign, both national and regional, patent offices. These proceedings could result in either loss of the patent or denial of the patent application or loss or reduction in the scope of one or more of the claims of the patent or patent application. In addition, such proceedings may be costly. Thus, any patents that we may own or exclusively license may not provide any protection against competitors. Furthermore, an adverse decision in an interference proceeding can result in a third party receiving the patent right sought by us, which in turn could affect our ability to develop, market or otherwise commercialize PRT-201 or any additional product candidates.

Furthermore, though a patent is presumed valid and enforceable, its issuance is not conclusive as to its validity or its enforceability and it may not provide us with adequate proprietary protection or competitive advantages against competitors with similar products. Even if a patent issues and is held to be valid and enforceable, competitors may be able to design around our patents, such as using pre-existing or newly developed technology. Other parties may develop and obtain patent protection for more effective technologies, designs or methods. We may not be able to prevent the unauthorized disclosure or use of our technical knowledge or know-how by consultants, vendors, former

employees and current employees. The laws of some foreign countries do not protect our proprietary rights to the same extent as the laws of the United States, and we may encounter significant problems in protecting our proprietary rights in these countries. If these developments were to occur, they could have a material adverse effect on our sales.

In addition, proceedings to enforce or defend our patents, if and when issued, could put our patents at risk of being invalidated, held unenforceable, or interpreted narrowly. Such proceedings could also provoke third parties to assert claims against us, including that some or all of the claims in one or more of our patents are invalid or otherwise unenforceable. If any of our patents, if and when issued, covering PRT-201, or any additional product candidates, are invalidated or found unenforceable, our financial position and results of operations would be materially and adversely impacted. In addition, if a court found that valid, enforceable patents held by third parties covered PRT-201, or any additional product candidates, our financial position and results of operations would also be materially and adversely impacted.

The degree of future protection for our proprietary rights is uncertain, and we cannot ensure that:

- any of our patents or pending patent applications, if issued, will include claims having a scope sufficient to protect PRT-201 or any additional product candidates;
- any of our pending patent applications will issue as patents at all;
- we will be able to successfully commercialize product candidates, if approved, before our relevant patents expire;
- we were the first to make the inventions covered by each of our patents and pending patent applications;
- we were the first to file patent applications for these inventions;
- others will not develop similar or alternative technologies that do not infringe our patents;
- others will not use pre-existing technology to effectively compete against us;
- any of our patents will be found ultimately to be valid and enforceable;
- any patents issued to us will provide a basis for an exclusive market for our commercially viable products, will provide us with any competitive advantages or will not be challenged by third parties;
- we will develop additional proprietary technologies or product candidates that are separately patentable; or
- that our commercial activities or products will not infringe the patents or proprietary rights of others.

We rely upon unpatented know-how to maintain our competitive position, which we seek to protect, in part, by confidentiality agreements with our employees and our collaborators and consultants. It is possible that technology relevant to our business will be independently developed by a person that is not a party to such an agreement. Furthermore, if the employees and consultants who are parties to these agreements breach or violate the terms of these agreements, we may not have adequate remedies for any such breach or violation, and our confidential know-how could become known to others through such breaches or violations. Further, our know-how could otherwise become known or be independently discovered by our competitors. Further, the term of confidentiality requirements for current and terminated agreements with some of our consultants, contract manufacturing or research organizations and other third parties is finite.

We may be subject to claims challenging the inventorship or ownership of our patents and other intellectual property.

We enter into confidentiality and intellectual property assignment agreements with our employees, consultants, outside scientific collaborators, sponsored researchers and other advisors. These agreements generally provide that inventions conceived by the party in the course of rendering services to us will be our exclusive property. However, these agreements may not be honored and may not effectively assign intellectual property rights to us. For example, even if we have a consulting agreement in place with an academic advisor pursuant to which such academic advisor is required to assign any inventions developed in connection with providing services to us, such academic advisor may not have the right to assign such inventions to us, as it may conflict with his or her obligations to assign all such intellectual property to his or her employing institution.

Litigation may be necessary to defend against these and other claims challenging inventorship or ownership of inventions. If we are unsuccessful in defending against any such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights, such as exclusive ownership of, or right to use, valuable intellectual property. Such an outcome could have a material adverse effect on our business. Even if we are successful in

defending against such claims, litigation could result in substantial costs and be a distraction to management and other employees.

Obtaining and maintaining our patent protection depends on compliance with various procedural, document submission, fee payment and other requirements imposed by governmental patent agencies, and our patent protection could be reduced or eliminated for non-compliance with these requirements.

The USPTO and various foreign governmental patent agencies require compliance with a number of procedural, documentary, fee payment and other provisions during the patent process. There are situations in which noncompliance can result in abandonment or lapse of a patent or patent application, resulting in partial or complete loss of patent rights in the relevant jurisdiction. In such an event, competitors might be able to enter the market earlier than would otherwise have been the case.

Issued patents covering PRT-201 or covering any additional product candidates could be found invalid or unenforceable if challenged in court.

If we initiated legal proceedings against a third party to enforce a patent, if and when issued, covering PRT-201 or any additional product candidate, the defendant could counterclaim that the patent covering our product candidate is invalid and/or unenforceable. In patent litigation in the United States, defendant counterclaims alleging invalidity and/or unenforceability are commonplace. Grounds for a validity challenge include alleged failures to meet any of several statutory requirements, including lack of novelty, obviousness or non-enablement. Grounds for unenforceability assertions include allegations that someone connected with prosecution of the patent withheld relevant information from the USPTO, or made a misleading statement, during prosecution. Third parties may also raise similar claims before administrative bodies in the United States or abroad, even outside the context of litigation. Such mechanisms include reexamination and inter partes review in the United States and equivalent proceedings in foreign jurisdictions, e.g., opposition proceedings. Such proceedings could result in revocation or amendment of our patents in such a way that they no longer cover, for example, PRT-201 or competitive products. The outcome following legal assertions of invalidity and unenforceability is unpredictable. With respect to validity, for example, we cannot be certain that there is no invalidating prior art, including prior art of which we and the patent examiner were unaware during prosecution. If a defendant were to prevail on a legal assertion of invalidity and/or unenforceability, we would lose at least part, and perhaps all, of the patent protection on the applicable product candidate. Such a loss of patent protection would have a material adverse impact on our business.

We will not seek to protect our intellectual property rights in all jurisdictions throughout the world and we may not be able to adequately enforce our intellectual property rights even in the jurisdictions where we seek protection.

Filing, prosecuting and defending patents on product candidates in all countries and jurisdictions throughout the world would be prohibitively expensive, and our intellectual property rights in some countries outside the United States could be less extensive than those in the United States, assuming that rights are obtained in the United States. In addition, the laws of some foreign countries do not protect intellectual property rights to the same extent as federal and state laws in the United States. Consequently, we may not be able to prevent third parties from practicing our inventions in all countries outside the United States, or from selling or importing products made using our inventions in and into the United States or other jurisdictions.

Competitors may use our technologies in jurisdictions where we do not pursue and obtain patent protection to develop their own products and further, may export otherwise infringing products to territories where we have patent protection, but enforcement is not as strong as that in the United States. These products may compete with our products and our patents or other intellectual property rights may not be effective or sufficient to prevent them from competing. Even if we pursue and obtain issued patents in particular jurisdictions, our patent claims or other intellectual property rights may not be effective or sufficient to prevent third parties from so competing.

The laws of some foreign countries do not protect intellectual property rights to the same extent as the laws of the United States. Many companies have encountered significant problems in protecting and defending intellectual property rights in certain foreign jurisdictions. The legal systems of some countries, particularly developing countries, do not favor the enforcement of patents and other intellectual property protection, especially those relating to biotechnology. This could make it difficult for us to stop the infringement of our patents, if obtained, or the misappropriation of our other intellectual property rights. For example, many foreign countries have compulsory licensing laws under which a patent owner must grant licenses to third parties. In addition, many countries limit the enforceability of patents against third parties, including government agencies or government contractors. In these countries, patents may provide limited or no benefit. Patent protection must ultimately be sought on a country-by-country basis, which is an expensive and time-consuming process with uncertain outcomes. Accordingly, we may choose not to seek patent protection in certain countries, and we will not have the benefit of patent protection in such countries.

Many companies have encountered significant problems in protecting and defending intellectual property rights in foreign jurisdictions. The legal systems of certain countries, particularly certain developing countries, do not favor the enforcement of patents and other intellectual property protection, particularly those relating to biopharmaceuticals, which could make it difficult for us to stop the infringement of our patents or marketing of competing products in violation of our proprietary rights generally. Proceedings to enforce our patent rights in foreign jurisdictions could result in substantial costs and divert our efforts and attention from other aspects of our business, could put our patents at risk of being invalidated or interpreted narrowly, could put our patent applications at risk of not issuing and could provoke third parties to assert claims against us. We may not prevail in any lawsuits that we initiate and the damages or other remedies awarded, if any, may not be commercially meaningful. Accordingly, our efforts to enforce our intellectual property rights around the world may be inadequate to obtain a significant commercial advantage from the intellectual property that we develop or license.

Some of our intellectual property may have been discovered through government funded programs and thus may be subject to federal regulations such as government "march-in" rights, certain reporting requirements, and a preference for United States industry. Compliance with such regulations may limit our exclusive rights, subject us to expenditure of resources with respect to reporting requirements, and limit our ability to contract with non-United States manufacturers.

Some of our intellectual property rights may have been generated through the use of United States government funding and therefore are subject to certain federal regulations. For example, our patents relating to some therapeutic uses of PRT-201 and associated systems and kits that include a catheter, which we refer to as the "therapy family," arose from research funded by the United States government. As a result, the United States government has certain rights to this intellectual property pursuant to the Bayh-Dole Act of 1980, or Bayh-Dole Act. These United States government rights in certain inventions developed under a government-funded program include a non-exclusive, non-transferable, irrevocable worldwide license to use inventions for any governmental purpose. In addition, the United States government has the right to require us to grant exclusive, partially exclusive, or non-exclusive licenses to any of these inventions to a third party if it determines that: (i) adequate steps have not been taken to commercialize the invention; (ii) government action is necessary to meet public health or safety needs; or (iii) government action is necessary to meet requirements for public use under federal regulations, also referred to as "march-in rights." The United States government also has the right to take title to these inventions if we, or the applicable licensor, fail to disclose the invention to the government and fail to file an application to register the intellectual property within specified time limits. In addition, the United States government may acquire title to these inventions in any country in which a patent application is not filed within specified time limits. Intellectual property generated under a government funded program is also subject to certain reporting requirements, compliance with which may require us or the applicable licensor to expend substantial resources. In addition, the United States government requires that any products embodying the subject invention or produced through the use of the subject invention be manufactured substantially in the United States. The manufacturing preference requirement can be waived if the owner of the intellectual property can show that reasonable but unsuccessful efforts have been made to grant licenses on similar terms to potential licensees that would be likely to manufacture substantially in the United States or that under the circumstances domestic manufacture is not commercially feasible. This preference for United States manufacturers may limit our ability to contract with non-United States product manufacturers for products covered by such intellectual property.

We currently do not plan to apply for additional United States government funding, but if we do, and we discover compounds or drug or biological candidates as a result of such funding, intellectual property rights to such discoveries may be subject to the applicable provisions of the Bayh-Dole Act.

If we do not obtain additional protection under the Hatch-Waxman Amendments and similar foreign legislation by extending the patent protection for PRT-201, our business may be materially harmed.

Depending upon the timing, duration and specifics of the first FDA marketing approval of PRT-201 and, if applicable, any additional product candidates, a United States patent that we own or license may be eligible for limited patent term restoration under the Drug Price Competition and Patent Term Restoration Act of 1984, referred to as the Hatch-Waxman Amendments. The Hatch-Waxman Amendments permit extension of patent protection for up to five years as compensation for patent term lost during product development and the FDA regulatory review process. During this period of extension, the scope of protection is limited to the approved product for approved uses (for patents claiming a product) and any use claimed by the patent and approved for the product (for patents claiming a method of using a product).

Although we plan on seeking patent term restoration for our products, it may not be granted if, for example, we fail to apply within applicable deadlines, fail to apply prior to expiration of relevant patents or otherwise fail to satisfy applicable requirements. Moreover, the applicable time period or the scope of patent protection afforded could be less

than we request. If we are unable to obtain patent term restoration or the term of any such patent restoration is less than we request, our competitors may be able to enter the market and compete against us sooner than we anticipate, and our ability to generate revenues could be materially adversely affected.

Changes in United States patent law could diminish the value of patents in general, thereby impairing our ability to protect our products.

As is the case with other biotechnology companies, our success is heavily dependent on intellectual property, particularly patents. Obtaining and enforcing patents in the biotechnology industry involve both technological and legal complexity, and is therefore costly, time-consuming and inherently uncertain. In addition, the United States has recently enacted and is currently implementing wide-ranging patent reform legislation, the Leahy-Smith America Invents Act, or America Invents Act. The America Invents Act includes a number of significant changes to United States patent law. These include provisions that affect the way patent applications will be prosecuted, provides expanded opportunities for post-grant administrative review of patents before the USPTO, and may also affect patent litigation. It is not yet clear what, if any, impact the America Invents Act will have on the operation of our business. However, the America Invents Act and its implementation could increase the uncertainties and costs surrounding the prosecution of our patent applications and the enforcement or defense of any patents that may issue from our patent applications, all of which could have a material adverse effect on our business and financial condition.

In addition, recent United States Supreme Court rulings have narrowed the scope of patent protection available in certain circumstances and weakened the rights of patent owners in certain situations. The full impact of these decisions is not yet known. For example, on March 20, 2012 in *Mayo Collaborative Services v. Prometheus Laboratories, Inc.*, the Court held that several claims drawn to measuring drug metabolite levels from patient samples and correlating them to drug doses were not patent-eligible subject matter. The decision appears to impact diagnostics patents that merely apply a law of nature via a series of routine steps and it has created uncertainty around the ability to obtain patent protection for certain inventions. Additionally, on June 13, 2013 in *Association for Molecular Pathology v. Myriad Genetics, Inc.*, the Court held that claims to isolated genomic DNA are not patent-eligible, but claims to complementary DNA molecules are patent-eligible because they are not a natural product. The effect of the decision on patents for other isolated natural products is uncertain. However, on March 4, 2014, the USPTO issued a memorandum to patent examiners providing guidance for examining claims that recite laws of nature, natural phenomena or natural products under the *Myriad* and *Prometheus* decisions. This guidance did not limit the application of *Myriad* to DNA but, rather, applied the decision to other natural products.

In addition to increasing uncertainty with regard to our ability to obtain future patents, this combination of events has created uncertainty with respect to the value of patents, once obtained. Depending on these and other decisions by the United States Congress, the federal courts and the USPTO, the laws and regulations governing patents could change in unpredictable ways that would weaken our ability to obtain new patents or to enforce our current or future patents.

We may be subject to damages resulting from claims that we or our employees have wrongfully used or disclosed alleged trade secrets of their former employers.

Our employees have been previously employed at other biotechnology or pharmaceutical companies, including our competitors or potential competitors, or at universities or academic medical centers. We also engage advisors and consultants who are concurrently employed at universities or who perform services for other entities. Although we are not aware of any claims currently pending against us, we may be subject to claims that we or our employees, advisors or consultants have inadvertently or otherwise used or disclosed intellectual property, including trade secrets or other proprietary information, of a former employer or other third party. We may in the future also be subject to claims that an employee, advisor or consultant performed work for us that conflicts with that person's obligations to a third party, such as an employer, and thus, that the third party has an ownership interest in the intellectual property arising out of work performed for us. Litigation may be necessary to defend against these claims. Even if we are successful in defending against these claims, litigation could result in substantial costs and be a distraction to management. If we are unsuccessful in defending against such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights or personnel. A loss of key personnel or their work product could hamper or prevent our ability to commercialize PRT-201 or any additional product candidates, which would materially adversely affect our commercial development efforts.

Numerous factors may limit any potential competitive advantage provided by our intellectual property rights.

The degree of future protection afforded by our intellectual property rights is uncertain because intellectual property rights have limitations, and may not adequately protect our business, provide a barrier to entry against our competitors or potential competitors, or permit us to maintain our competitive advantage. Moreover, if a third party has intellectual property rights that cover the practice of our technology, we may not be able to exercise or extract value from our intellectual property rights fully or at all. The following examples are illustrative:

- we might not have been the first to make the inventions covered by a patent or pending patent application that we own;
- we might not have been the first to file patent applications covering an invention;

- others may independently develop similar or alternative technologies without infringing our intellectual property rights;
- third parties may compete with us in jurisdictions where we do not pursue and obtain patent protection;
- pending patent applications that we own may not lead to issued patents;
- patents that we own may not provide us with any competitive advantages, or may be held invalid or unenforceable;
- third parties may assert an ownership interest in our intellectual property;
- we may not develop or in-license additional proprietary technologies that are patentable; and
- the patents or proprietary rights of others may have an adverse effect on our business.

Should any of these events occur, they could significantly harm our business and results of operations.

Risks Related to Our Business and Industry

If we fail to attract and keep senior management and key scientific personnel, we may be unable to successfully develop our products, conduct our clinical trials and commercialize our product candidates.

Our future growth and success depend on our ability to recruit, retain, manage and motivate our employees. We are highly dependent on our senior management team, in particular, Timothy Noyes, our President and Chief Executive Officer, Steven Burke, our Senior Vice President and Chief Medical Officer, George Eldridge, our Senior Vice President, Chief Financial Officer, Treasurer and Secretary and Daniel Gottlieb, our Vice President, Marketing and Business Development, as well as the other principal members of our management and scientific teams. Although we have formal employment agreements with our executive officers, these agreements do not prevent them from terminating their employment with us at any time. The loss of the services of any member of our senior management or scientific team or the inability to hire or retain experienced management personnel could adversely affect our ability to execute our business plan and harm our operating results.

Because of the specialized scientific and managerial nature of our business, we rely heavily on our ability to attract and retain qualified scientific, technical and managerial personnel. We do not currently carry "key person" insurance on the lives of members of executive management. The competition for qualified personnel in the pharmaceutical field is intense. Due to this intense competition, we may be unable to continue to attract and retain qualified personnel necessary for the development of our business or to recruit suitable replacement personnel. In addition, we rely on consultants and advisors, including scientific and clinical advisors, to assist us in formulating our research and development and commercialization strategy including, F. Nicholas Franano, our scientific founder. Our consultants and advisors may be employed by employers other than us and may have commitments under consulting or advisory contracts with other entities that may limit their availability to us.

We will need to significantly increase the size of our organization, and we may experience difficulties in managing growth.

We are currently a small company with 11 full-time employees and one part-time employee as of September 30, 2014. In order to commercialize our potential products, we will need to increase our operations and expand our use of our third-party contractors. We plan to continue to build our compliance, financial and operating infrastructure to ensure the maintenance of a well-managed company including hiring additional staff within our regulatory and clinical groups after Phase 3 is complete. We intend to recruit an in-house commercial organization in the United States focused on promoting PRT-201, if it is approved. We currently do not have a sales and marketing capability and therefore intend to recruit a specialty hospital sales force of approximately 75-100 representatives in anticipation of PRT-201's approval. We estimate it will take three to six months to recruit this specialty hospital sales force. We will need to expand our employment base when we are in the full commercial stages of our current potential product's life cycle.

Future growth will impose significant added responsibilities on members of management, including the need to identify, recruit, maintain and integrate additional employees. In addition, to meet our obligations as a public company, we will need to increase our general and administrative capabilities. Our management, personnel and systems currently in place may not be adequate to support this future growth. Our future financial performance and our ability to commercialize our potential products and to compete effectively will depend, in part, on our ability to manage any future growth effectively. To that end, we must be able to:

- manage our clinical trials and the regulatory process effectively;
- manage the manufacturing of product candidates and potential products for clinical and commercial use;
- integrate current and additional management, administrative, financial and sales and marketing personnel;
- develop a marketing and sales infrastructure;
- hire new personnel necessary to effectively commercialize PRT-201 and any additional product candidates;

- develop our administrative, accounting and management information systems and controls; and
- hire and train additional qualified personnel.

Product candidates that we may acquire or develop in the future may be intended for patient populations that are large. In order to continue development and marketing of these product candidates, if approved, we would need to significantly expand our operations. Our staff, financial resources, systems, procedures or controls may be inadequate to support our operations and our management may be unable to manage successfully future market opportunities or our relationships with customers and other third parties.

Our disclosure controls and procedures may not prevent or detect all errors or acts of fraud.

Upon completion of our IPO, we became subject to the periodic reporting requirements of the Securities Exchange Act of 1934, as amended, or the Exchange Act. Our disclosure controls and procedures are designed to reasonably assure that information required to be disclosed by us in reports we file or submit under the Exchange Act is accumulated and communicated to management, and recorded, processed, summarized and reported within the time periods specified in the rules and forms of the SEC. We believe that any disclosure controls and procedures or internal controls and procedures, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met.

These inherent limitations include the realities that judgments in decision-making can be faulty, and that breakdowns can occur because of simple error or mistake. Additionally, controls can be circumvented by the individual acts of some persons, by collusion of two or more people or by an unauthorized override of the controls. Accordingly, because of the inherent limitations in our control system, misstatements due to error or fraud may occur and not be detected.

If product liability lawsuits are successfully brought against us, our insurance may be inadequate and we may incur substantial liability.

We face an inherent risk of product liability claims as a result of the clinical testing of PRT-201 or any additional product candidates. We will face an even greater risk if we commercially sell PRT-201 or any additional product candidate that we develop. We maintain primary product liability insurance and excess product liability insurance that cover our clinical trials, and we plan to maintain insurance against product liability lawsuits for commercial sale of our potential products. Historically, the potential liability associated with product liability lawsuits for pharmaceutical products has been unpredictable. Although we believe that our current insurance is a reasonable estimate of our potential liability and represents a commercially reasonable balancing of the level of coverage as compared to the cost of the insurance, we may be subject to claims in connection with our clinical trials and, in the future, commercial use of our potential products, for which our insurance coverage may not be adequate, and the cost of any product liability litigation or other proceeding, even if resolved in our favor, could be substantial.

For example, we may be sued if any product we develop allegedly causes injury or is found to be otherwise unsuitable during clinical testing, manufacturing, marketing or sale. Any such product liability claims may include allegations of defects in manufacturing, defects in design, a failure to warn of dangers inherent in the product, negligence, strict liability or a breach of warranties. Large judgments have been awarded in class action lawsuits based on drugs or biologics that had unanticipated adverse effects. Claims could also be asserted under state consumer protection acts. If we cannot successfully defend ourselves against product liability claims, we may incur substantial liabilities or be required to limit commercialization of PRT-201 or any additional product candidates. Regardless of the merits or eventual outcome, liability claims may result in:

- reduced resources of our management to pursue our business strategy;
- decreased demand for our product candidates or products that we may develop;

- injury to our reputation and significant negative media attention;
- withdrawal of clinical trial participants;
- termination of clinical trial sites or entire trial programs;
- initiation of investigations by regulators;
- product recalls, withdrawals or labeling, marketing or promotional restrictions;
- significant costs to defend resulting litigation;
- diversion of management and scientific resources from our business operations;
- substantial monetary awards to trial participants or patients;

- loss of revenue; and
- the inability to commercialize any products that we may develop.

We currently have a \$5 million product liability insurance coverage in connection with our clinical trials and we will need to increase our insurance coverage if and when we begin selling PRT-201 or any additional product candidates if and when they receive marketing approval. However, the product liability insurance we will need to obtain in connection with the commercial sales of PRT-201 or any additional product candidates if and when they receive regulatory approval may be unavailable in meaningful amounts or at a reasonable cost. In addition, insurance coverage is becoming increasingly expensive. If we are unable to obtain or maintain sufficient insurance coverage at an acceptable cost or to otherwise protect against potential product liability claims, it could prevent or inhibit the development and commercial production and sale of PRT-201 or any additional product candidates if and when they obtain regulatory approval, which could materially adversely affect our business, financial condition, results of operations, cash flows and prospects.

Additionally, we do not carry insurance for all categories of risk that our business may encounter. Some of the policies we currently maintain include general liability, employment practices liability, property, auto, workers' compensation, products liability and directors' and officers' insurance. We do not know, however, if we will be able to maintain insurance with adequate levels of coverage. Any significant uninsured liability may require us to pay substantial amounts, which would materially adversely affect our financial position, cash flows and results of operations.

If we engage in acquisitions in the future, we will incur a variety of costs and we may never realize the anticipated benefits of such acquisitions.

We may attempt to acquire businesses, technologies, services, products or product candidates in the future that we believe are a strategic fit with our business. We have no present agreement regarding any material acquisitions. If we do undertake any acquisitions, however, the process of integrating an acquired business, technology, service, products or product candidates into our business may result in unforeseen operating difficulties and expenditures, including diversion of resources and management's attention from our core business. In addition, we may fail to retain key executives and employees of the companies we acquire, which may reduce the value of the acquisition or give rise to additional integration costs. Future acquisitions could result in additional issuances of equity securities that would dilute the ownership of existing stockholders. Future acquisitions could also result in the incurrence of debt, actual or contingent liabilities or the amortization of expenses related to other intangible assets, any of which could adversely affect our operating results. In addition, we may fail to realize the anticipated benefits of any acquisition.

We currently have our API produced for us by a contract manufacturer exclusively in one manufacturing facility and if this or any future facility, any facility we use for storage of the finished product or our equipment were damaged or destroyed, our ability to continue to operate our business would be materially harmed.

Our executive offices are located in Waltham, Massachusetts, and our API is manufactured at Lonza's facility located in Visp, Switzerland. We expect that Lonza plans to utilize this facility in the future to support commercial production if our product candidate is approved. We have manufactured our entire finished product for the ongoing and planned Phase 3 clinical trials of PRT-201 and currently store the finished product in only one location. Extended delays in our Phase 3 clinical trials causing us to need to manufacture new clinical supply would cause a significant disruption in our operations and cause us to incur unexpected costs to manufacture new finished product. We are vulnerable to natural disasters, such as severe storms and other events that could disrupt our operations. We do not carry insurance for natural disasters and we may not carry sufficient business interruption insurance to compensate us for losses that may occur. If the current manufacturing facility or any future facility, stored product or equipment were damaged or destroyed, or if we experience a significant disruption in our operations for any reason, our ability to continue to operate our business would be materially harmed.

If supply is interrupted, there could be a significant disruption in our clinical development and commercial supply. If the supply is interrupted after approval of the BLA, an alternative manufacturer would need to be qualified through a BLA supplement which could result in further delay. The regulatory agencies may also require additional studies if a new manufacturer is relied upon for commercial production. Switching manufacturers may involve substantial costs and would likely result in a delay in our desired clinical and commercial timelines.

These factors could cause the delay of clinical trials, regulatory submissions, required approvals or commercialization of PRT-201 or any additional product candidates, cause us to incur higher costs and prevent us from commercializing our products successfully. Furthermore, if our suppliers fail to meet contractual requirements, and we are unable to secure one or more replacement suppliers capable of production at a substantially equivalent cost, our clinical trials may be delayed or we could lose potential revenue.

Our business and operations would suffer in the event of system failures.

Despite the implementation of security measures, our internal computer systems, and those of our CROs and other third parties on which we rely, are vulnerable to damage from computer viruses, unauthorized access, natural disasters, terrorism, war and telecommunication and electrical failures. If issues were to arise and cause interruptions in our operations, it could result in a material disruption of our drug and biologic development programs. For example, the loss of clinical trial data from completed or ongoing or planned clinical trials could result in delays in our regulatory approval efforts and significantly increase our costs to recover or reproduce the data. To the extent that any disruption or security breach were to result in a loss of or damage to our data or applications, or inappropriate disclosure of confidential or proprietary information, we could incur liability and the further development of PRT-201 or any additional product candidates could be delayed.

Our employees may engage in misconduct or other improper activities, including noncompliance with regulatory standards and requirements and insider trading, which could significantly harm our business.

We are exposed to the risk of employee fraud or other misconduct. Misconduct by employees could include intentional failures to comply with the regulations of the FDA and non-United States regulators, provide accurate information to the FDA and non-United States regulators, comply with healthcare fraud and abuse laws and regulations in the United States and abroad, and report financial information or data accurately or disclose unauthorized activities to us. In particular, sales, marketing and business arrangements in the healthcare industry are subject to extensive laws and regulations intended to prevent fraud, misconduct, kickbacks, self-dealing and other abusive practices. These laws and regulations may restrict or prohibit a wide range of pricing, discounting, marketing and promotion, sales commission, customer incentive programs and other business arrangements. Employee misconduct could also involve the improper use of information obtained in the course of clinical trials, which could result in regulatory sanctions and serious harm to our reputation. We have a Code of Business Conduct and Ethics, but it is not always possible to identify and deter employee misconduct, and the precautions we take to detect and prevent this activity may not be effective in controlling unknown or unmanaged risks or losses or in protecting us from governmental investigations or other actions or lawsuits stemming from a failure to comply with these laws or regulations. If any actions are instituted against us, and we are not successful in defending ourselves or asserting our rights, those actions could have a significant impact on our business, including the imposition of significant fines or other sanctions.

Recent federal legislation may increase the difficulty and cost for us to commercialize PRT-201 and may affect the prices we may obtain, and impair our ability to profitably sell PRT-201, if approved.

In the United States and some foreign jurisdictions, there have been a number of legislative and regulatory changes and proposed changes regarding the healthcare system that could prevent or delay marketing approval for PRT-201, restrict or regulate post-approval activities and affect our ability to profitably sell PRT-201, if approved. Legislative and regulatory proposals have been made to expand post-approval requirements and restrict sales and promotional activities for pharmaceutical products. We do not know whether additional legislative changes will be enacted, or whether the FDA regulations, targets or interpretations will be changed, or what the impact of such changes on the marketing approvals of PRT-201, if any, may be. In addition, increased scrutiny by the U.S. Congress of the FDA's approval process may significantly delay or prevent marketing approval, as well as subject us to more stringent product labeling and post-marketing testing and other requirements.

In the United States, the pharmaceutical industry has been significantly affected by legislative initiatives. For example, the Medicare Prescription Drug, Improvement, and Modernization Act of 2003, or the MMA, changed the way Medicare covers and pays for pharmaceutical products. The legislation expanded Medicare coverage for drug purchases by the elderly and introduced a new reimbursement methodology based on average sales prices for drugs. Cost reduction initiatives and other provisions of this legislation could decrease the coverage of, or the reimbursement rate that we receive for, PRT-201, if approved, and could seriously harm our business. While the MMA applies only to reimbursement of drugs under the Medicare program, private payors often follow Medicare coverage policy and payment limitations in setting their own reimbursement rates, and any reduction in reimbursement that results from the MMA may result in a similar reduction in payments from non-governmental payors.

In March 2010, President Obama signed the Patient Protection and Affordable Care Act, as amended by the Health Care and Education Affordability Reconciliation Act of 2010 or, collectively, the ACA, which substantially changes the way healthcare will be financed by both governmental and private insurers, and significantly impacts the pharmaceutical industry. Among the provisions of the ACA of importance to our business, including, without limitation, our ability to commercialize, and the prices we may obtain for, PRT-201, if approved for sale, are the following:

- an annual, nondeductible fee on any entity that manufactures or imports specified branded prescription drugs and biologic agents, apportioned among these entities according to their market share in certain government healthcare programs;
- increases in the statutory minimum rebates a manufacturer must pay as a condition to having a drug available for coverage under the Medicaid program;
- expansion of healthcare fraud and abuse laws, including the federal False Claims Act and the federal Anti-Kickback Statute, and the addition of new government investigative powers and enhanced penalties for non-compliance;
 - extension of a manufacturer's Medicaid rebate liability to covered drugs dispensed to individuals who are enrolled in Medicaid managed care organizations;
- expansion of eligibility criteria for Medicaid programs by, among other things, allowing states to offer Medicaid coverage to additional individuals and by adding new eligibility categories for certain individuals with income at or below 133% of the federal poverty level beginning in 2014, thereby potentially increasing a manufacturer's Medicaid rebate liability;
 - expansion of the entities eligible for discounts under the Public Health Service pharmaceutical pricing program;
- new requirements under the federal Open Payments program and its implementing regulations;
- a new requirement to annually report drug samples that manufacturers and distributors provide to physicians; and
- a new Patient-Centered Outcomes Research Institute to oversee, identify priorities in, and conduct comparative clinical effectiveness research, along with funding for such research.

In addition, other legislative changes have been proposed and adopted since the ACA was enacted. These changes include aggregate reductions to Medicare payments to providers of up to 2% per fiscal year, which went into effect in April 2013. In January 2013, President Obama signed into law the American Taxpayer Relief Act of 2012, which, among other things, reduced Medicare payments to several types of providers and increased the statute of limitations period for the government to recover overpayments to providers from three to five years. The full impact on our business of the ACA and other new laws is uncertain but may result in additional reductions in Medicare and other healthcare funding. Nor is it clear whether other legislative changes will be adopted, if any, or how such changes would affect the demand for PRT-201, if approved.

Governments outside the United States tend to impose strict price controls, which may adversely affect our revenues, if any.

In international markets, reimbursement and health care payment systems vary significantly by country, and many countries have instituted price ceilings on specific products and therapies. In some countries, particularly the countries of the European Union, the pricing of prescription pharmaceuticals is subject to governmental control. In these countries, pricing negotiations with governmental authorities can take considerable time after the receipt of marketing approval for a product. To obtain coverage and reimbursement or pricing approval in some countries, we may be required to conduct a clinical trial that compares the cost-effectiveness of our product candidate to other available therapies. There can be no assurance that our products will be considered cost-effective by third-party payors, that an adequate level of reimbursement will be available or that the third-party payors' reimbursement policies will not adversely affect our ability to sell our products profitably. If reimbursement of our products is unavailable or limited in scope or amount, or if pricing is set at unsatisfactory levels, our business could be harmed, possibly materially.

We are an "emerging growth company" and as a result of the reduced disclosure and governance requirements applicable to emerging growth companies, our common stock may be less attractive to investors.

We are an "emerging growth company" as defined in the JOBS Act, and we intend to take advantage of certain exemptions from various reporting requirements that are applicable to other public companies that are not EGCs, including: not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act, reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements, and exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and stockholder approval of any golden parachute payments not previously approved.

We may take advantage of these reporting exemptions until we are no longer an EGC. We will remain an EGC until the earlier of (1) the last day of the fiscal year (a) following the fifth anniversary of the completion of our IPO, (b) in which we have total annual gross revenue of at least \$1 billion, or (c) in which we are deemed to be a large accelerated filer, which means the market value of our common stock that is held by non-affiliates exceeds \$700 million as of the prior June 30th, and (2) the date on which we have issued more than \$1 billion in non-convertible debt during the prior three-year period.

We cannot predict whether investors will find our common stock less attractive if we rely on these exemptions. If some investors find our common stock less attractive as a result, there may be a less active trading market for our common stock and our stock price may be more volatile. In addition, the JOBS Act provides that an EGC can take advantage of an extended transition period for complying with new or revised accounting standards. This allows an EGC to delay the adoption of these accounting standards until they would otherwise apply to private companies. We have irrevocably elected not to avail ourselves of this exemption and, therefore, we will be subject to the same new or revised accounting standards as other public companies that are not EGCs.

Even after we no longer qualify as an EGC, we may still qualify as a "smaller reporting company" which would allow us to take advantage of many of the same exemptions from disclosure requirements, including not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act and reduced disclosure obligations regarding executive compensation in this prospectus and our periodic reports and proxy statements. We cannot predict if investors will find our common stock less attractive because we will rely on these exemptions. If some investors find our common stock less attractive as a result, there may be a less active trading market for our common stock and our stock price may be more volatile.

The market price for our common stock may be volatile, which could contribute to the loss of your investment.

Fluctuations in the price of our common stock could contribute to the loss of all or part of your investment. Prior to our IPO, there was no public market for our common stock. We are listed on NASDAQ, but we cannot predict the extent to which investor interest in our Company will lead to the development of or sustain an active trading market on NASDAQ or otherwise or how liquid that market might become. If an active trading market for our common stock does not develop or is not sustained, the market price and liquidity of our common stock will be materially and adversely affected and it may be difficult for stockholders to sell their shares of common stock at prices that are attractive to them, or at all. Further, an inactive market may also impair our ability to raise capital by selling shares of our common stock.

If an active market for our common stock develops and continues, the trading price of our common stock is likely to be highly volatile and could be subject to wide fluctuations in response to various factors, some of which are beyond our control. Any of the factors listed below could have a material adverse effect the price of our common stock and stockholders may also be unable to sell their shares of common stock at prices that are attractive to them due to fluctuations in the market price of our common stock. In such circumstances the trading price of our common stock may not recover and may experience a further decline.

Factors affecting the trading price of our common stock may include:

- our failure to develop and commercialize PRT-201 or any additional product candidates;
- actual or anticipated fluctuations in our quarterly financial results or the quarterly financial results of companies perceived to be similar to us;
- changes in the market's expectations about our operating results;
- adverse results or delays in preclinical studies or clinical trials;
- our decision to initiate a clinical trial, not to initiate a clinical trial or to terminate an existing clinical trial; •adverse regulatory decisions, including failure to receive regulatory approval for PRT-201 or any additional product

candidates;

- success of competitive products;
- adverse developments concerning our collaborations and our manufacturers;
- inability to obtain adequate product supply for any product candidate for clinical trials or commercial sale or inability to do so at acceptable prices;
- the termination of a collaboration or the inability to establish additional collaborations;
- unanticipated serious safety concerns related to the use of any of PRT-201 or any additional product candidates;

- our ability to effectively manage our growth;
- the size and growth, if any, of the targeted market;
- our operating results failing to meet the expectation of securities analysts or investors in a particular period or failure of securities analysts to publish reports about us or our business;
- changes in financial estimates and recommendations by securities analysts concerning our company, our market opportunity, or the biotechnology and pharmaceutical industries in general;
- operating and stock price performance of other companies that investors deem comparable to us;
- overall performance of the equity markets;
- announcements by us or our competitors of acquisitions, new product candidates or programs, significant contracts, commercial relationships or capital commitments;
- our ability to successfully market PRT-201 or any additional product candidates;
- changes in laws and regulations affecting our business, including but not limited to clinical trial requirements for approvals;
- disputes or other developments relating to proprietary rights, including patents, litigation matters and our ability to obtain patent protection for PRT-201 or any additional product candidates;
- commencement of, or involvement in, litigation involving our company, our general industry, or both;
- changes in our capital structure, such as future issuances of securities or the incurrence of additional debt;
- the volume of shares of our common stock available for public sale;
- additions or departures of key scientific or management personnel;
- any major change in our board or management;
- changes in accounting practices;
- ineffectiveness of our internal control over financial reporting;
- sales of substantial amounts of common stock by our directors, executive officers or significant stockholders or the perception that such sales could occur; and
- general economic and political conditions such as recessions, interest rates, fuel prices, international currency fluctuations and acts of war or terrorism.

Broad market and industry factors may materially harm the market price of our common stock irrespective of our operating performance. The stock market in general, and NASDAQ and the market for biotechnology companies in particular, have experienced extreme price and volume fluctuations that have often been unrelated or disproportionate to the operating performance of the particular companies affected. The trading prices and valuations of these stocks, and of ours, may not be predictable. A loss of investor confidence in the market for technology or software stocks or the stocks of other companies which investors perceive to be similar to us, the opportunities in the digital simulation market or the stock market in general, could depress our stock price regardless of our business, prospects, financial conditions or results of operations.

Raising additional funds through debt or equity financing could be dilutive and may cause the market price of our common stock to decline.

Until such time, if ever, as we can generate substantial product revenues, we expect to finance our cash needs through a combination of equity offerings and debt financings, and potentially through license and development agreements with strategic partnerships with third parties. To the extent that additional capital is raised through the sale of equity or convertible debt securities, the issuance of those securities could result in substantial dilution for our current stockholders and the terms may include liquidation or other preferences that adversely affect the rights of our current stockholders. Furthermore, the issuance of additional securities, whether equity or debt, by us, or the possibility of such issuance, may cause the market price of our common stock to decline and existing stockholders may not agree with our financing plans or the terms of such financings. Moreover, the incurrence of debt financing could result in a substantial portion of our operating cash flow being dedicated to the payment of principal and interest on such indebtedness and could impose restrictions on our operations, such as limitations on our ability to incur additional debt, limitations on our ability to acquire, sell or license intellectual property rights and other operating restrictions

that could adversely impact our ability to conduct our business. Additional funding may not be available to us on acceptable terms, or at all.

If securities analysts do not publish research or reports about our business or if they downgrade our stock, the price of our common stock could decline.

The trading market for our common stock will rely in part on the research and reports that industry or financial analysts publish about us, our business, our markets and our competitors. We do not control these analysts. If securities analysts do not cover our common stock, the lack of research coverage may adversely affect the market price of our common stock. Furthermore, if one or more of the analysts who do cover us downgrade our stock or if those analysts issue other unfavorable commentary about us or our business, our stock price would likely decline. If one or more of these analysts cease coverage of us or fails to regularly publish reports on us, we could lose visibility in the market and interest in our stock could decrease, which in turn could cause our stock price or trading volume to decline and may also impair our ability to expand our business with existing customers and attract new customers.

The concentration of our capital stock ownership with insiders will likely limit your ability to influence corporate matters.

As of November 24, 2014, our executive officers, directors, current 5% or greater stockholders, and their respective affiliates together beneficially own or control, in aggregate, approximately 65.0% of the shares of our outstanding common stock. As a result, these executive officers, directors and principal stockholders, acting together, will have substantial influence over most matters that require approval by our stockholders, including the election of directors, any merger, consolidation or sale of all or substantially all or of our assets or any other significant corporate transaction. Corporate action might be taken even if other stockholders oppose such action. These stockholders may delay or prevent a change of control or otherwise discourage a potential acquirer from attempting to obtain control of our company, even if such change of control would benefit our other stockholders. This concentration of stock ownership may adversely affect investors' perception of our corporate governance or delay, prevent or cause a change in control of our company, any of which could adversely affect the market price of our common stock.

Sales of a substantial number of shares of our common stock by our existing stockholders in the public market may cause our stock price to decline.

Sales of our common stock in the public market, or the perception that these sales may occur, could cause the market price of our common stock to decline. As of November 24, 2014, we have 16,449,164 shares of common stock outstanding. Of these shares, only 7,026,500 shares of our common stock are freely transferable without restriction or additional registration under the Securities Act of 1933, as amended, or the Securities Act. The remaining shares outstanding will be available for sale on April 19, 2015, upon the expiration of the 180-day lock-up period, subject to volume and other restrictions as applicable under Rule 144 under the Securities Act. Any or all of these shares may be released prior to expiration of the lock-up period at the discretion of the lead underwriters for our IPO. To the extent these shares are sold, or if it is perceived that they will be sold, into the market, the market price of our common stock could decline.

In addition, 1,947,141 shares of common stock that are either subject to outstanding options or reserved for future issuance under our employee benefit plans will become eligible for sale in the public market to the extent permitted by the provisions of various vesting schedules, the lock-up agreements and Rule 144 and Rule 701 under the Securities Act.

We intend to file a registration statement permitting shares of common stock issued in the future, pursuant to our employee benefit plans, to be freely resold by plan participants in the public market, subject to the lock-up agreements, applicable vesting schedules and, for shares held by directors, executive officers and other affiliates, volume limitations under Rule 144 for shares. Our 2014 Employee Incentive Plan and 2014 Employee Stock Purchase Plan also contain a provision for the annual increase of the number of shares reserved for issuance under such plan, which shares we also intend to register in the future as such annual increase occurs. If the shares we may issue from time to time under our employee benefit plans are sold, or if it is perceived that they will be sold, by the award recipient in the public market, the trading price of our common stock could decline.

Future sales and issuances of our common stock or rights to purchase common stock, including pursuant to our equity incentive plans, could result in additional dilution of the percentage ownership of our stockholders and could cause our stock price to fall.

We expect that significant additional capital will be needed in the future to continue our planned operations, including conducting clinical trials, commercialization efforts, expanded research and development activities and costs associated with operating a public company. To raise capital, we may sell common stock, convertible securities or other equity securities in one or more transactions at prices and in a manner we determine from time to time. If we sell common stock, convertible securities or other equity securities in more than one transaction, investors may be

materially diluted by subsequent sales. Such sales may also result in material dilution to our existing stockholders, and new investors could gain rights, preferences and privileges senior to the holders of our common stock.

We will incur significant increased costs as a result of operating as a public company, and our management will be required to devote substantial time to new compliance initiatives.

As a newly public company, we will incur significant legal, accounting and other expenses that we did not incur as a private company. In addition, the Sarbanes-Oxley Act, and rules of the SEC and those of NASDAQ impose various requirements on public companies including requiring establishment and maintenance of effective disclosure and financial controls. Our management and other personnel will need to devote a substantial amount of time to these compliance initiatives. Moreover, these rules and regulations have increased and will continue to increase our legal and financial compliance costs and will make some activities more time-consuming and costly.

The Sarbanes-Oxley Act requires, among other things, that we maintain effective internal control over financial reporting and disclosure controls and procedures. In particular, we must perform system and process evaluation and testing of our internal control over financial reporting to allow management to report on the effectiveness of our internal control over financial reporting, as required by Section 404 of the Sarbanes-Oxley Act. In addition, we will be required to have our independent registered public accounting firm attest to the effectiveness of our internal control over financial reporting the later of our second annual report on Form 10-K or the first annual report on Form 10-K following the date on which we are no longer an EGC. Our compliance with Section 404 of the Sarbanes-Oxley Act will require that we incur substantial accounting expense and expend significant management efforts. We currently do not have an internal audit group, and we will need to hire additional accounting and financial staff with appropriate public company experience and technical accounting knowledge. If we are not able to comply with the requirements of Section 404 in a timely manner, or if we or our independent registered public accounting firm identify deficiencies in our internal control over financial reporting that are deemed to be material weaknesses, the market price of our stock could decline and we could be subject to sanctions or investigations by NASDAQ, the SEC or other regulatory authorities, which would require additional financial and management resources.

Our ability to successfully implement our business plan and comply with Section 404 requires us to be able to prepare timely and accurate financial statements. We expect that we will need to continue to improve existing, and implement new operational and financial systems, procedures and controls to manage our business effectively. Any delay in the implementation of, or disruption in the transition to, new or enhanced systems, procedures or controls, may cause our operations to suffer and we may be unable to conclude that our internal control over financial reporting is effective and to obtain an unqualified report on internal controls from our auditors as required under Section 404 of the Sarbanes-Oxley Act. This, in turn, could have an adverse impact on trading prices for our common stock, and could adversely affect our ability to access the capital markets.

We do not expect to pay any cash dividends for the foreseeable future.

You should not rely on an investment in our common stock to provide dividend income. We do not anticipate that we will pay any cash dividends to holders of our common stock in the foreseeable future. Instead, we plan to retain any earnings to maintain and expand our operations. Accordingly, investors must rely on sales of their common stock after price appreciation, which may never occur, as the only way to realize any return on their investment. As a result, investors seeking cash dividends should not purchase our common stock.

Our ability to use our net operating loss carryovers and certain other tax attributes may be limited.

As described above under "—Risks Related to Our Financial Condition and Need for Additional Capital," we have incurred net losses since our inception and anticipate that we will continue to incur significant losses for the foreseeable future. Under the Code, a corporation is generally allowed a deduction for net operating losses, or NOLs, carried over from a prior taxable year. Under that provision, we can carry forward our NOLs to offset our future taxable income, if any, until such NOLs are used or expire. The same is true of other unused tax attributes, such as tax credits.

If a corporation undergoes an "ownership change," generally defined as a greater than 50% change (by value) in its equity ownership over a three-year period, Sections 382 and 383 of the Code, limit the corporation's ability to use carryovers of its pre-change NOLs, credits and certain other tax attributes to reduce its tax liability for periods after the ownership change. Our issuance of common stock pursuant to our IPO may result in a limitation under Sections 382 and 383, either separately or in combination with certain prior or subsequent shifts in the ownership of our common stock. As a result, our ability to use carryovers of our pre-change NOLs and credits to reduce our future U.S. federal income tax liability may be subject to limitations. This could result in increased U.S. federal income tax liability for us if we generate taxable income in a future period. Limitations on the use of NOLs and other tax attributes could also increase our state tax liability. The use of our tax attributes will also be limited to the extent that we do not generate positive taxable income in future tax periods.

We could be subject to securities class action litigation.

In the past, securities class action litigation has often been brought against a company following a decline in the market price of its securities. This risk is especially relevant for us because biotechnology companies have experienced significant stock price volatility in recent years. If we face such litigation, it could result in substantial costs and a diversion of management's attention and resources, which could harm our business.

Provisions in our amended and restated certificate of incorporation, our amended and restated bylaws and Delaware law may have anti-takeover effects that could discourage an acquisition of us by others, even if an acquisition would be beneficial to our stockholders, and may prevent attempts by our stockholders to replace or remove our current management.

Our amended and restated certificate of incorporation, amended and restated bylaws and Delaware law contain provisions that may have the effect of delaying or preventing a change in control of us or changes in our management. Our amended and restated certificate of incorporation and bylaws include provisions that:

- authorize "blank check" preferred stock, which could be issued by our board of directors without stockholder approval and may contain voting, liquidation, dividend and other rights superior to our common stock;
- create a classified board of directors whose members serve staggered three-year terms;
- specify that special meetings of our stockholders can be called only by our board of directors;
- prohibit stockholder action by written consent;
- establish an advance notice procedure for stockholder approvals to be brought before an annual meeting of our stockholders, including proposed nominations of persons for election to our board of directors;
- provide that our directors may be removed only for cause;
- provide that vacancies on our board of directors may be filled only by a majority of directors then in office, even though less than a quorum;
- specify that no stockholder is permitted to cumulate votes at any election of directors;
- expressly authorize our board of directors to modify, alter or repeal our amended and restated bylaws; and
- require supermajority votes of the holders of our common stock to amend specified provisions of our amended and restated certificate of incorporation and amended and restated bylaws.

These provisions, alone or together, could delay or prevent hostile takeovers and changes in control or changes in our management.

In addition, because we are incorporated in the State of Delaware, we are governed by the provisions of Section 203 of the Delaware General Corporation Law, which limits the ability of stockholders owning in excess of 15% of our outstanding voting stock to merge or combine with us.

Any provision of our amended and restated certificate of incorporation or amended and restated bylaws or Delaware law that has the effect of delaying or deterring a change in control could limit the opportunity for our stockholders to receive a premium for their shares of our common stock, and could also affect the price that some investors are willing to pay for our common stock.

Our amended and restated certificate of incorporation designates the Court of Chancery of the State of Delaware and federal court within the State of Delaware as the exclusive forum for certain types of actions and proceedings that may be initiated by our stockholders, which could limit our stockholders' ability to obtain a favorable judicial forum for disputes with us or our directors, officers or employees.

Our amended and restated certificate of incorporation provides that, subject to limited exceptions, the Court of Chancery of the State of Delaware and federal court within the State of Delaware will be exclusive forums for (1) any derivative action or proceeding brought on our behalf, (2) any action asserting a claim of breach of a fiduciary duty owed by any of our directors, officers or other employees to us or our stockholders, (3) any action asserting a claim against us arising pursuant to any provision of the Delaware General Corporation Law, our amended and restated certificate of incorporation or our amended and restated bylaws, or (4) any other action asserting a claim against us that is governed by the internal affairs doctrine. Any person or entity purchasing or otherwise acquiring any interest in shares of our capital stock shall be deemed to have notice of and to have consented to the provisions of our amended and restated certificate of incorporation described above. This choice of forum provision may limit a stockholder's ability to bring a claim in a judicial forum that it finds favorable for disputes with us or our directors, officers or other employees, which may discourage such lawsuits against us and our directors, officers and employees. Alternatively, if a court were to find these provisions of our amended and restated certificate of incorporation inapplicable to, or unenforceable in respect of, one or more of the specified types of actions or proceedings, we may incur additional costs associated with resolving such matters in other jurisdictions, which could adversely affect our business and financial condition.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds

(a) Recent Sales of Unregistered Equity Securities

During the period between July 1, 2014 and September 30, 2014, we did not grant options to purchase] shares of our common stock..

During the period between July 1, 2014 and September 30, 2014, no shares of our common stock were issued upon exercise of outstanding stock options.

(b) Use of Proceeds from IPO

On October 27, 2014, we completed the sale of 6,110,000 shares of common stock and on November 21, 2014, we completed the sale of 916,500 shares of common stock upon the exercise of an option by the Company's underwriters to purchase additional shares, in each case at a public offering price of \$10 per share for aggregate gross proceeds of \$70,265,000. The offer and sale of all of the shares in the IPO were registered under the Securities Act pursuant to a registration statement on Form S-1, as amended (File No. 333-198777), which was declared effective by the SEC on October 21, 2014. The joint book-running managers for the IPO were Stifel, Nicolaus & Company, Incorporated and JMP Securities LLC. The co-managers for the IPO were Robert W. Baird & Co. Incorporated and Oppenheimer & Co. Inc. Following the sale of the shares in connection with the closing of the IPO, the offering terminated.

We received net proceeds from the IPO , including the exercise of the underwriter's over-allotment, of approximately \$62,500,000, after deducting underwriting discounts and commissions of approximately \$4,919,000 million and offering-related expenses of approximately \$2,830,000 million payable by us. None of the expenses associated with the IPO were paid to directors, officers, persons owning 10% or more of any class of equity securities, or to their associates, or to our affiliates.

There has been no material change in the planned use of proceeds from our IPO as described in our final Prospectus filed with the SEC pursuant to Rule 424(b) of the Securities Act, on October 22, 2014. We are holding the balance of the net proceeds from the IPO in investments in U.S. Treasuries, certificates of deposit, U.S. government-backed and agency securities. As of November 24, 2014, we have used less than \$1.0 million of the net offering proceeds.

(c) Not applicable.

Item 6. Exhibits

See the Exhibit Index on the page immediately following the signature page for a list of exhibits filed as part of this Quarterly Report on Form 10-Q, which Exhibit Index is incorporated herein by reference.

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SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

Date: November 25, 2014

PROTEON THERAPEUTICS, INC.

By:

/s/ Timothy P. Noyes
Timothy P. Noyes
President, Chief Executive Officer and
Director (Principal Executive Officer)

Date: November 25, 2014

By:

/s/ George A. Eldridge
George A. Eldridge
Senior Vice President, Chief Financial
Officer, Treasurer and Secretary
(Principal Financial Officer and
Principal Accounting Officer)

EXHIBIT INDEX

Exhibit Number	Description of Document
3.1	Sixth Amended and Restated Certificate of Incorporation of Proteon Therapeutics, Inc. (incorporated by reference to Exhibit 3.1 to the Company's Current Report on Form 8-K as filed on October 27, 2014).
3.2	Amended and Restated By-laws of Proteon Therapeutics, Inc. (incorporated by reference to Exhibit 3.2 to the Company's Current Report on Form 8-K as filed on October 27, 2014).
31.1*	Certification of Principal Executive Officer Required Under Rule 13a-14(a) and 15d-14(a) of the Securities Exchange Act of 1934, as amended.
31.2*	Certification of Principal Financial Officer Required Under Rule 13a-14(a) and 15d-14(a) of the Securities Exchange Act of 1934, as amended.
32.1**	Certification of Principal Executive Officer and Principal Financial Officer Required Under Rule 13a-14(b) of the Securities Exchange Act of 1934, as amended, and 18 U.S.C. §1350.
101*	The following materials from the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2014, formatted in XBRL (eXtensible Business Reporting Language): (i) Consolidated Balance Sheets as of September 30, 2014 (unaudited) and December 31, 2013, (ii) Consolidated Statements of Operations and Comprehensive Loss (unaudited) for the three and nine months ended September 30, 2014 and 2013, (iii) Consolidated Statements of Cash Flows (unaudited) for the nine months ended September 30, 2014 and 2013 and (iv) Notes to Consolidated Financial Statements.

*Exhibits filed herewith.

**Exhibits furnished herewith.