# UNITED STATES
# SECURITIES AND EXCHANGE COMMISSION
**Washington, D.C. 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 March 31, 2019**
**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: 001-37471**

# PIERIS PHARMACEUTICALS, INC.

**(Exact name of registrant as specified in its charter)**

| **Nevada** | **30-0784346** |
|---|---|
| **(State or other jurisdiction of incorporation or organization)** | **(I.R.S. Employer Identification No.)** |
| **255 State Street, 9th Floor**<br>**Boston, MA**<br>**United States** | **02109** |
| **(Address of principal executive offices)** | **(Zip Code)** |

**857-246-8998**

**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 ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted 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 such files). Yes ☒ No ☐

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 the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act.

| | | | |
|---|---|---|---|
| Large accelerated filer | ☐ | Accelerated filer | ☒ |
| Non-accelerated filer | ☐ | Smaller reporting company | ☒ |

Emerging growth company ☒

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

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

| Title of Each Class | Trading Symbol | Name of Each Exchange on Which Registered |
|---|---|---|
| **Common Stock, $0.001 par value per share** | **PIRS** | **The Nasdaq Capital Market** |

As of May 6, 2019, the registrant had 49,173,094 shares of common stock outstanding.

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**Special Note Regarding Forward-Looking Statements**

This Quarterly Report on Form 10-Q contains forward looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, or the Securities Act, and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act, that involve risks and uncertainties, principally in the section entitled "Management's Discussion and Analysis of Financial Condition and Results of Operations." All statements other than statements of historical fact contained in this Quarterly Report on Form 10-Q, including statements regarding future events, our future financial performance, expectations for growth and revenues, anticipated timing and amounts of milestone and other payments under collaboration agreements, business strategy and plans, objectives of management for future operations, timing and outcome of legal and other proceedings, and our ability to finance our operations are forward-looking statements. We have attempted to identify forward-looking statements by terminology including "anticipates," "believes," "can," "continue," "ongoing," "could," "estimates," "expects," "intends," "may," "appears," "future," "likely," "plans," "potential," "projects," "predicts," "seek," "should," "target," "would" or "will" or the negative of these terms or other comparable terminology. Although we do not make forward-looking statements unless we believe we have a reasonable basis for doing so, we cannot guarantee their accuracy. These statements are only predictions and involve known and unknown risks, uncertainties and other factors, including the risks outlined under "Risk Factors" or elsewhere in our most recent Annual Report on Form 10-K, which may cause our or our industry's actual results, levels of activity, performance or achievements expressed or implied by these forward-looking statements to differ materially.

Moreover, we operate in a very competitive and rapidly changing environment. New risks emerge from time to time and it is not possible for us to predict all risk factors, nor can we address the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause our actual results to differ materially from those contained in any forward-looking statements. Actual results could differ materially from our forward-looking statements due to a number of factors, including, without limitation, risks related to: the results of our research and development activities, including uncertainties relating to the discovery of potential drug candidates and the preclinical and ongoing or planned clinical testing of our drug candidates; the early stage of our drug candidates presently under development; our ability to obtain and, if obtained, maintain regulatory approval of our current drug candidates and any of our other future drug candidates; our need for substantial additional funds in order to continue our operations and the uncertainty of whether we will be able to obtain the funding we need; our future financial performance; our ability to retain or hire key scientific or management personnel; our ability to protect our intellectual property rights that are valuable to our business, including patent and other intellectual property rights; our dependence on third-party manufacturers, suppliers, research organizations, testing laboratories and other potential collaborators; the success of our collaborations with third parties; our ability to meet milestones; our ability to successfully market and sell our drug candidates in the future as needed; the size and growth of the potential markets for any of our approved drug candidates, and the rate and degree of market acceptance of any of our approved drug candidates; competition in our industry; regulatory developments in the United States and foreign countries; and the expected impact of new accounting standards.

You should not place undue reliance on any forward-looking statement(s), each of which applies only as of the date of this Quarterly Report on Form 10-Q. Before you invest in our securities, you should be aware that the occurrence of the events described in Part I, Item 1A (Risk Factors) of our Annual Report on Form 10-K for the fiscal year ended December 31, 2018 filed with the Securities and Exchange Commission, or SEC, on March 18, 2019, could negatively affect our business, operating results, financial condition and stock price. All forward-looking statements included in this document are based on information available to us on the date hereof, and except as required by law, we undertake no obligation to update or revise publicly any of the forward-looking statements after the date of this Quarterly Report on Form 10-Q to conform our statements to actual results or changed expectations.

**Currency Presentation and Currency Translation**

Unless otherwise indicated, all references to "dollars," "$," "U.S. $" or "U.S. dollars" are to the lawful currency of the United States. All references in this Quarterly Report on Form 10-Q to "euro" or "€" are to the currency introduced at the start of the third stage of the European Economic and Monetary Union pursuant to the Treaty establishing the European Community, as amended. We prepare our financial statements in U.S. dollars.

The functional currency for our operations is primarily the euro. With respect to our financial statements, the translation from the euro to U.S. dollars is performed for balance sheet accounts using exchange rates in effect at the balance sheet date and for revenue and expense accounts using a weighted average exchange rate during the period. The resulting translation adjustments are recorded as a component of accumulated other comprehensive income/loss.

Where in this Quarterly Report on Form 10-Q we refer to amounts in euros, we have for your convenience also, in certain cases, provided a conversion of those amounts to U.S. dollars in parentheses. Where the numbers refer to a specific balance sheet account date or financial statement account period, we have used the exchange rate that was used to perform the conversions in connection with the applicable financial statement. In all other instances, unless otherwise indicated, the conversions have been made using the noon buying rate of €1.00 to U.S. $1.122 based on Thomson Reuters as of March 31, 2019.

**PART I - FINANCIAL INFORMATION**

**Item 1. Financial Statements.**

**PIERIS PHARMACEUTICALS, INC.**

**CONDENSED CONSOLIDATED BALANCE SHEETS**

**(unaudited, in thousands, except share and per share data)**

| | March 31 2019 | December 31, 2018 |
|---|---|---|
| **Assets** | | |
| **Current assets:** | | |
| Cash and cash equivalents | $ 52,094 | $ 74,867 |
| Short term investments | 58,685 | 53,240 |
| Accounts receivable | 7,128 | 2,701 |
| Prepaid expenses and other current assets | 6,379 | 4,574 |
| **Total current assets** | 124,286 | 135,382 |
| Property and equipment, net | 4,893 | 5,049 |
| Other non-current assets | 1,869 | 910 |
| **Total assets** | $ 131,048 | $ 141,341 |
| **Liabilities and stockholders' equity** | | |
| **Current liabilities:** | | |
| Accounts payable | $ 3,728 | $ 3,350 |
| Accrued expenses and other current liabilities | 9,216 | 9,114 |
| Deferred revenues, current portion | 28,181 | 35,612 |
| **Total current liabilities** | 41,125 | 48,076 |
| Deferred revenue, net of current portion | 59,734 | 53,303 |
| Other long-term liabilities | 27 | 27 |
| **Total liabilities** | 100,886 | 101,406 |
| **Stockholders' equity:** | | |
| Preferred stock, $0.001 par value per share, 10,000 shares authorized at March 31, 2019 and December 31, 2018, respectively | | |
| Series A Convertible, 2,907 issued and outstanding at March 31, 2019 and December 31, 2018, respectively | — | — |
| Series B Convertible, 5,000 shares issued and outstanding at March 31, 2019. No shares issued and outstanding at December 31, 2018. | — | — |
| Common stock, $0.001 par value per share, 300,000,000 shares authorized and 49,151,219 and 54,151,219 issued and outstanding at March 31, 2019 and December 31, 2018, respectively | 49 | 54 |
| Additional paid-in capital | 191,224 | 189,929 |
| Accumulated other comprehensive loss | (2,056) | (2,982) |
| Accumulated deficit | (159,055) | (147,066) |
| **Total stockholders' equity** | 30,162 | 39,935 |
| **Total liabilities and stockholders' equity** | $ 131,048 | $ 141,341 |

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

**PIERIS PHARMACEUTICALS, INC.**

**CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE LOSS**

**(unaudited, in thousands, except per share data)**

| | Three Months Ended March 31 | |
|---|---|---|
| | **2019** | **2018** |
| Revenue | $ 8,545 | $ 4,152 |
| Operating expenses | | |
| Research and development | 14,296 | 7,936 |
| General and administrative | 4,932 | 4,352 |
| Total operating expenses | 19,228 | 12,288 |
| Loss from operations | (10,683) | (8,136) |
| Interest income | 506 | 325 |
| Other income (expense), net | (171) | (903) |
| Loss before income taxes | (10,348) | (8,714) |
| Provision for income tax | — | — |
| Net loss | $ (10,348) | $ (8,714) |
| | | |
| Other comprehensive income (loss): | | |
| Foreign currency translation | 686 | (747) |
| Unrealized gain (loss) on available-for-sale securities | 240 | (531) |
| Comprehensive loss | $ (9,422) | $ (9,992) |
| Net loss per share | | |
| Basic and diluted | $ (0.20) | $ (0.17) |
| Weighted average number of common shares outstanding | | |
| Basic and diluted | 50,873 | 50,046 |

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

**PIERIS PHARMACEUTICALS, INC.**

**CONSOLIDATED STATEMENTS OF CHANGES IN STOCKHOLDERS' EQUITY**

**(in thousands)**

| | Series A convertible preferred shares | | Series B convertible preferred shares | | Common Shares | | Additional paid-in capital | Accumulated other comprehensive loss | Accumulated deficit | Total equity |
|---|---|---|---|---|---|---|---|---|---|---|
| | No. of shares | Share capital | No. of shares | Share capital | No. of shares | Share capital | | | | |
| Balance as of December 31, 2017 | 5 | $ — | — | — | 45,017 | $ 45 | $ 136,484 | $ (4,695) | $ (120,312) | $ 11,522 |
| Net loss | — | — | — | — | — | — | — | — | (8,714) | (8,714) |
| Foreign currency translation adjustment | — | — | — | — | — | — | — | (581) | — | (581) |
| Unrealized losses on investments | — | — | — | — | — | — | — | (697) | — | (697) |
| Stock based compensation expense | — | — | — | — | — | — | 1,004 | — | — | 1,004 |
| Issuance of common stock resulting from exercise of stock options | — | — | — | — | 513 | 1 | 825 | — | — | 826 |
| Issuance of common stock resulting from exercise of warrants | — | — | — | — | 63 | — | 126 | — | — | 126 |
| Issuance of common stock net $3,374 in offering costs | — | — | — | — | 6,325 | 6 | 47,201 | — | — | 47,207 |
| Preferred stock conversion | (2) | — | — | — | 2,056 | 2 | (2) | — | — | — |
| Balance as of March 31, 2018 | 3 | $ — | — | $ — | 53,974 | $ 54 | $ 185,638 | $ (5,973) | $ (129,026) | $ 50,693 |
| | | | | | | | | | | |
| Balance as of December 31, 2018 | 3 | $ — | — | — | 54,151 | $ 54 | $ 189,929 | $ (2,982) | $ (147,066) | $ 39,935 |
| Change in Retained Earnings from adoption of ASC 606 | — | — | — | — | — | — | — | — | (1,641) | (1,641) |
| Net loss | — | — | — | — | — | — | — | — | (10,348) | (10,348) |
| Foreign currency translation adjustment | — | — | — | — | — | — | — | 686 | — | 686 |
| Unrealized gains on investments, net of $0.1 million of tax | — | — | — | — | — | — | — | 240 | — | 240 |
| Stock based compensation expense | — | — | — | — | — | — | 1,290 | — | — | 1,290 |
| Preferred stock conversion | — | — | 5 | — | (5,000) | (5) | 5 | — | — | — |
| Balance as of March 31, 2019 | 3 | $ — | 5 | $ — | 49,151 | $ 49 | $ 191,224 | $ (2,056) | $ (159,055) | $ 30,162 |

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

**PIERIS PHARMACEUTICALS, INC.**

**CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS**

**(unaudited, in thousands)**

| | Three Months Ended March 31 | |
|---|---|---|
| | **2019** | **2018** |
| **Operating activities:** | | |
| Net loss | $ (10,348) | $ (8,714) |
| Adjustments to reconcile net loss to net cash provided by operating activities: | | |
| Depreciation | 166 | 134 |
| Stock-based compensation | 1,290 | 1,004 |
| Other | (298) | 8 |
| Changes in operating assets and liabilities | (5,918) | 38,907 |
| Net cash (used in) provided by operating activities | (15,108) | 31,339 |
| **Investing activities:** | | |
| Purchases of property and equipment | (121) | (414) |
| Proceeds from maturity of investments | 2,842 | 3,600 |
| Purchases of investments | (8,037) | (11,479) |
| Net cash used in investing activities | (5,316) | (8,293) |
| **Financing activities:** | | |
| Proceeds from exercise of stock options | — | 826 |
| Proceeds from exercise of warrants | — | 126 |
| Issuance of common stock, net of issuance costs | — | 47,207 |
| Net cash provided by financing activities | — | 48,159 |
| Effect of exchange rate change on cash and cash equivalents | (2,349) | 438 |
| Net increase in cash and cash equivalents | (22,773) | 71,643 |
| Cash and cash equivalents at beginning of period | 74,867 | 37,878 |
| Cash and cash equivalents at end of period | $ 52,094 | $ 109,521 |
| Supplemental cash flow disclosures: | | |
| Net unrealized gain (loss) on investments | $ 330 | $ (697) |
| Property and equipment included in accounts payable | $ — | $ 65 |

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

## 1. Corporate Information

Pieris Pharmaceuticals, Inc. was founded in May 2013, and acquired 100% interest in Pieris Pharmaceuticals GmbH (formerly Pieris AG, a German company which was founded in 2001) in December 2014. Pieris Pharmaceuticals, Inc. and its wholly-owned subsidiaries, hereinafter collectively Pieris, or the Company, is a clinical-stage biopharmaceutical company that discovers and develops Anticalin®-based drugs to target validated disease pathways in unique and transformative ways. Pieris' corporate headquarters is located in Boston, Massachusetts and its research facility is located in Freising-Weihenstephan, Germany.

Pieris's clinical pipeline includes an immuno-oncology, or IO, bispecific targeting HER2 and 4-1BB, an inhaled IL-4Rα antagonist Anticalin protein to treat uncontrolled asthma, and a half-life-optimized hepcidin-antagonizing Anticalin protein to treat anemia.

The Company's core Anticalin technology and platform was developed in Germany, and the Company has partnership arrangements with several major multi-national pharmaceutical companies.

As of March 31, 2019, the Company had cash, cash equivalents and investments of $110.8 million. The Company expects that its existing cash, cash equivalents and investments are sufficient to support operating expense and capital expenditure requirements for at least 12 months from the date of this filing.

## 2. Summary of Significant Accounting Policies

The Company´s significant accounting policies are described in Note 2 - Summary of Significant Accounting Policies, within the Company´s Annual Report on Form 10-K for the fiscal year ended December 31, 2018. There has been no material change to the significant accounting policies during the three months ended March 31, 2019 other than the adoption of Financial Accounting Standards Board, or FASB, Accounting Standards Codification, or ASC, Topic 606, *Revenue from Contracts with Customers*, or ASC 606, described in more detail below.

### Unaudited Interim Financial Information

The accompanying unaudited condensed consolidated financial statements included herein have been prepared by the Company in accordance with accounting principles generally accepted in the United States, or U.S. GAAP, for interim financial information and pursuant to the rules and regulations of the SEC. Accordingly, certain information and footnote disclosures normally included in financial statements prepared in accordance with U.S. GAAP have been condensed or omitted pursuant to such rules and regulations. In the opinion of management, all adjustments, consisting of normal recurring adjustment, and disclosures considered necessary for a fair presentation of interim period results have been included. Interim results for the three months ended March 31, 2019 are not necessarily indicative of results that may be expected for the year ending December 31, 2019. For further information, refer to the financial statements and footnotes thereto included in the Company´s Annual Report on Form 10-K for the fiscal year ended December 31, 2018, which was filed with the SEC on March 18, 2019.

### Basis of Presentation and Use of Estimates

The accompanying condensed consolidated financial statements of Pieris Pharmaceuticals, Inc. and its wholly-owned subsidiaries were prepared in accordance with U.S. GAAP. The condensed consolidated financial statements include the accounts of all subsidiaries. All intercompany balances and transactions have been eliminated.

The preparation of the financial statements in accordance with U.S. GAAP requires management to make estimates, judgments and assumptions that affect the reported amounts of assets, liabilities, revenues, expenses and the related disclosures at the date of the financial statements and during the reporting period. Significant estimates are used for, but are not limited to, revenue recognition; deferred tax assets, deferred tax liabilities and valuation allowances; fair value of stock options and various accruals. Management evaluates its estimates on an ongoing basis. Actual results and outcomes could differ materially from management's estimates, judgments and assumptions.

### Cash, Cash Equivalents and Investments

The Company determines the appropriate classification of its investments at the time of purchase. All liquid investments with original maturities of 90 days or less from the purchase date and for which there is an active market are considered to be cash

equivalents. The Company's current and non-current investments are comprised of money market, asset backed securities, government treasuries and corporate bonds that are classified as available-for-sale in accordance with FASB ASC 320, *Investments—Debt and Equity Securities*. The Company classifies investments available to fund current operations as current assets on its balance sheets. Investments are classified as non-current assets on the balance sheets if (i) the Company has the intent and ability to hold the investments for a period of at least one year and (ii) the contractual maturity date of the investments is greater than one year.

Available-for-sale investments are recorded at fair value, with unrealized gains or losses included in accumulated other comprehensive loss on the Company's balance sheets. Realized gains and losses are determined using the specific identification method and are included as a component of other income. No realized gains were recognized for the three months ended March 31, 2019. Realized losses of approximately $0.2 million were recognized for the three months ended March 31, 2018.

The Company reviews investments for other-than-temporary impairment whenever the fair value of an investment is less than the amortized cost and evidence indicates that an investment's carrying amount is not recoverable within a reasonable period of time. To determine whether an impairment is other-than temporary, the Company considers its intent to sell or whether it is more likely than not that the Company will be required to sell the investment before recovery of the investment's amortized cost basis. Evidence considered in this assessment includes reasons for the impairment, the severity and the duration of the impairment and changes in value subsequent to period end. As of March 31, 2019, there were no investments with a fair value that was significantly lower than the amortized cost basis or any investments that had been in an unrealized loss position for a significant period.

**Concentration of Credit Risk and Off-Balance Sheet Risk**

The Company has no financial instruments with off-balance sheet risk such as foreign exchange contracts, option contracts or other foreign hedging arrangements. Financial instruments that subject Pieris to concentrations of credit risk include cash and cash equivalents, investments and accounts receivable. The Company's cash, cash equivalents and investments are held in accounts with financial institutions that management believes are creditworthy. The Company's investment policy includes guidelines on the quality of the institutions and financial instruments and defines allowable investments that the Company believes minimizes the exposure to concentration of credit risk. These amounts, at times, may exceed federally insured limits. The Company has not experienced any credit losses in such accounts and does not believe it is exposed to any significant credit risk on these funds. Accounts receivable primarily consist of amounts due under strategic partnership and other license agreements with major multi-national pharmaceutical companies for which the Company does not obtain collateral.

**Fair Value Measurement**

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*, or ASC 820, 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 in 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 inputs are quoted prices in active markets for identical assets or liabilities that the reporting entity has the ability to access at the measurement date.
- Level 2 utilizes quoted market prices in markets that are not active, broker or dealer quotations or alternative pricing sources with reasonable levels of price transparency.
- Level 3 inputs are unobservable inputs for the asset or liability in which there is little, if any, market activity for the asset or liability at the measurement date.

To the extent that valuation is based on models or inputs that are less observable or unobservable in the market, the determination of fair value requires more judgment. Accordingly, the degree of judgment exercised by the Company in determining fair value is greatest for instruments categorized in Level 3. A financial instrument's level within the fair value hierarchy is based on the lowest level of any input that is significant to the fair value measurement.

Financial instruments measured at fair value on a recurring basis include cash equivalents and investments (*Note 4*).

An entity may elect to measure many financial instruments and certain other items at fair value at specified election dates. Subsequent unrealized gains and losses on items for which the fair value option has been elected will be reported in net loss. The Company did not elect to measure any additional financial instruments or other items at fair value.

**Revenue Recognition**

Pieris has entered into several licensing agreements with collaboration partners for the development of Anticalin therapeutics against a variety of targets. The terms of these agreements provide for the transfer of multiple goods or services which may include: (i) licenses, or options to obtain licenses, to Pieris's Anticalin technology and/or specific programs and (ii) research and development activities to be performed on behalf of or with a collaborative partner. Payments to Pieris under these agreements may include upfront fees (which include license and option fees), payments for research and development activities, payments based upon the achievement of certain milestones and royalties on product sales. There are no performance, cancellation, termination or refund provisions in any of the arrangements that could result in material financial consequences to Pieris.

Effective January 1, 2019, the Company adopted ASC 606. The standard requires a company to recognize revenue when it transfers goods or services to customers in an amount that reflects the consideration that the company expects to receive for those goods or services. The standard allows for two transition methods -- full retrospective, in which the standard is applied to each prior reporting period presented, or modified retrospective, in which the cumulative effect of initially applying the standard is recognized at the date of initial adoption. The Company elected the modified retrospective approach and applied it to contracts not completed at the date of adoption. Therefore, comparative prior periods have not been adjusted. The reported results for 2019 reflect the application of ASC 606 guidance while the reported results for 2018 were prepared under the guidance of FASB ASC Topic 605, *Revenue Recognition,* or ASC 605. Furthermore, the Company adopted the contract modification practical expedient set forth in ASC 606 and will reflect the aggregate effect of all modifications that occurred before January 1, 2019 when identifying the satisfied and unsatisfied performance obligations, determining the transaction price and allocating the transaction price to the satisfied and unsatisfied performance obligations. See Note 3 for additional details on these arrangements.

*Collaborative Arrangements*

The Company considers the nature and contractual terms of an arrangement and assess whether the arrangement involves a joint operating activity pursuant to which it is an active participant and exposed to significant risks and rewards with respect to the arrangement. If the Company is an active participant and exposed to the significant risks and rewards with respect to the arrangement, it accounts for these arrangement pursuant to ASC 808, *Collaborative Arrangements*, or ASC 808, and applies a systematic and rational approach to recognize revenue. The Company classifies payments received as revenue and payments made as a reduction of revenue in the period in which they are earned.

*Revenue from Contracts with Customers*

In accordance with ASC 606, revenue is recognized when a customer obtains control of promised goods or services. The amount of revenue recognized reflects the consideration to which the Company expects to be entitled in exchange for these goods and services. To achieve this core principle, the Company applies the following five steps: 1) identify the customer contract; 2) identify the contract's performance obligations; 3) determine the transaction price; 4) allocate the transaction price to the performance obligations; and 5) recognize revenue when or as a performance obligation is satisfied.

The Company evaluates all promised goods and services within a customer contract and determines which of such goods and services are separate performance obligations. This evaluation includes an assessment of whether the good or service is capable of being distinct and whether the good or service is separable from other promises in the contract. In assessing whether promised goods or services are distinct, the Company considers factors such as the stage of development of the underlying intellectual property and the capabilities of the customer to develop the intellectual property on their own or whether the required expertise is readily available.

Licensing arrangements are analyzed to determine whether the promised goods or services, which often include licenses, research and development services and governance committee services, are distinct or whether they must be accounted for as part of a combined performance obligation. If the license is considered not to be distinct, the license would then be combined with other promised goods or services as a combined performance obligation. If the Company is involved in a governance committee, it assesses whether its involvement constitutes a separate performance obligation. When governance committee services are determined to be separate performance obligations, the Company determines the fair value to be allocated to this promised service.

Certain contracts contain optional and additional items, which are considered marketing offers and are accounted for as separate contracts with the customer if such option is elected by the customer, unless the option provides a material right which would not be provided without entering into the contract. An option that is considered a material right is accounted for as a separate performance obligation.

The transaction price is determined based on the consideration to which the Company will be entitled in exchange for transferring goods and services to the customer. A contract may contain variable consideration, including potential payments for both milestone and research and development services. For certain potential milestone payments, the Company estimates the amount of variable consideration by using the most likely amount method. In making this assessment, the Company evaluates factors such as the clinical, regulatory, commercial and other risks that must be overcome to achieve the milestone. Each reporting period the Company re-evaluates the probability of achievement of such variable consideration and any related constraints. Pieris will include variable consideration, without constraint, in the transaction price to the extent it is probable that a significant reversal in the amount of cumulative revenue recognized will not occur when the uncertainty associated with the variable consideration is subsequently resolved. For potential research and development service payments, the Company estimates the amount of variable consideration by using the expected value method, including any approved budget updates arising from additional research or development services.

If the contract contains a single performance obligation, the entire transaction price is allocated to the single performance obligation. Contracts that contain multiple performance obligations require an allocation of the transaction price among the performance obligations on a relative standalone selling price basis unless the transaction price is variable and meets the criteria to be allocated entirely to a performance obligation or to a distinct good or service that forms part of a single performance obligation.

The Company allocates the transaction price based on the estimated standalone selling price of the underlying performance obligations or in the case of certain variable consideration to one or more performance obligations. The Company must develop assumptions that require judgment to determine the stand-alone selling price for each performance obligation identified in the contract. The Company utilizes key assumptions to determine the stand-alone selling price, which may include other comparable transactions, pricing considered in negotiating the transaction and the estimated costs to complete the respective performance obligation. Certain variable consideration is allocated specifically to one or more performance obligations in a contract when the terms of the variable consideration relate to the satisfaction of the performance obligation and the resulting amounts allocated to each performance obligation are consistent with the amount the Company would expect to receive for each performance obligation.

When a performance obligation is satisfied, revenue is recognized for the amount of the transaction price, excluding estimates of variable consideration that are constrained, that is allocated to that performance obligation on a relative standalone selling price basis. Significant management judgment is required in determining the level of effort required under an arrangement and the period over which the Company is expected to complete its performance obligations under an arrangement.

For performance obligations consisting of licenses and other promises, the Company utilizes judgment to assess the nature of the combined performance obligation to determine whether the combined performance obligation is satisfied over time or at a point in time and, if over time, the appropriate method of measuring progress for purposes of recognizing revenue from non- refundable, up-front fees. The Company evaluates the measure of progress each reporting period and, if necessary, adjusts the measure of performance and related revenue recognition. If the license to the Company's intellectual property is determined to be distinct from the other performance obligations identified in the arrangement, the Company will recognize revenue from non-refundable, up-front fees allocated to the license when the license is transferred to the customer and the customer is able to use and benefit from the license.

*Milestones and Royalties*

The Company aggregates milestones into four categories: (i) research milestones, (ii) development milestones, (iii) commercial milestones, and (iv) sales milestones. Research milestones are typically achieved upon reaching certain success criteria as defined in each agreement related to developing an Anticalin protein against the specified target. Development milestones are typically reached when a compound reaches a defined phase of clinical research or passes such phase or upon gaining regulatory approvals. Commercial milestones are typically achieved when an approved pharmaceutical product reaches the status for commercial sale, including regulatory approval. Sales milestones are certain defined levels of net sales by the licensee, such as when a product first achieves global sales or annual sales of a specified amount.

There is uncertainty that the events to obtain the research and development milestones will be achieved given the nature of clinical development and the stage of the Company's technology. The Company has thus determined that all research and development

milestones will be constrained until it is deemed probable that a significant revenue reversal will not occur. For revenues from research and development milestones, payments will be recognized consistent with the recognition pattern of the performance obligation to which they relate.

For arrangements that include sales-based royalties, including milestone payments based on the level of sales, and for which the license is deemed to be the predominant item to which the royalties relate, the Company recognizes revenue at the later of (i) when the related sales occur, or (ii) when the performance obligation to which some or all of the royalty has been allocated has been satisfied (or partially satisfied). Commercial milestones and sales royalties are determined by sales or usage-based thresholds and will be accounted for under the royalty recognition constraint as constrained variable consideration.

*Contract Balances*

The Company recognizes a contract asset when the Company transfers goods or services to a customer before the customer pays consideration or before payment is due, excluding any amounts presented as a receivable (i.e., accounts receivable). A contract asset is an entity's right to consideration in exchange for goods or services that the entity has transferred to a customer. The contract liabilities (i.e., deferred revenue) primarily relate to contracts where the Company has received payment but has not yet satisfied the related performance obligations.

In the event of an early termination of a collaboration agreement, any contract liabilities would be recognized in the period in which all Company obligations under the agreement have been fulfilled.

*Costs to Obtain and Fulfill a Contract with a Customer*

Certain costs to obtain customer contracts, including success-based fees paid to third-party service providers, and costs to fulfill customer contracts are capitalized in accordance with FASB ASC 340, *Other Assets and Deferred Costs*, or ASC 340. These costs are amortized to expense on a systemic basis that is consistent with the transfer to the customer of the goods or services to which the asset relates. The Company will expense the amortization of costs to obtain customer contracts to general and administrative expense and costs to fulfill customer contracts to research and development expense.

*Impact of Adopting ASC 606 on the Financial Statements*

As a result of applying the modified retrospective method to adopt the new revenue guidance, the following adjustments were made to the consolidated balance sheet as of January 1, 2019:

| | As Reported, December 31, 2018 | ASC 606 Adjustment | Adjusted, January 1, 2019 |
|---|---|---|---|
| **Consolidated Balance Sheet Data (in thousands):** | | | |
| Prepaid expenses and other current assets | $ 4,574 | $ 716 | $ 5,290 |
| Other non-current assets | 910 | 1,120 | 2,030 |
| Total Assets | $ 141,341 | $ 1,836 | $ 143,177 |
| Deferred revenue, net of current portion | $ 53,303 | $ 3,477 | $ 56,780 |
| Total Liabilities | 101,406 | 3,477 | 104,883 |
| Accumulated deficit | (147,066) | (1,641) | (148,707) |
| Total stockholders' equity | 39,935 | (1,641) | 38,294 |
| Total liabilities and stockholders' equity | $ 141,341 | $ 1,836 | $ 143,177 |

These changes were primarily caused by the differences in determining and allocating transaction price under ASC 606 and costs to obtain certain contracts.

The adoption of ASC 606 did not impact income taxes, as the Company fully reserves its net deferred tax assets. Therefore, the change to the Company's net deferred tax asset position due to adoption was offset by a corresponding change to the valuation allowance.

The following table compares the reported condensed consolidated balance sheet, statement of operations, as of and for the three months ended March 31, 2019, to the pro-forma amounts had the previous guidance been in effect:

| | March 31, 2019 | | |
|---|---|---|---|
| | As Reported, ASC 606 | Adjustments | Adjusted Balance, ASC 605 |
| **Condensed Consolidated Balance Sheet Data (in thousands):** | | | |
| Prepaids and other current assets | $ 6,379 | $ (643) | $ 5,736 |
| Other non-current assets | 1,869 | (1,120) | 749 |
| Total Assets | $ 131,048 | $ (1,763) | $ 129,285 |
| Deferred revenues, current portion | 28,181 | 9,431 | 37,612 |
| Deferred revenue, net of current portion | 59,734 | (13,439) | 46,295 |
| Total Liabilities | 100,886 | (4,008) | 96,878 |
| Accumulated Deficit | (159,055) | 2,245 | (156,810) |
| Total stockholders' equity | 30,162 | 2,245 | 32,407 |
| Total liabilities and stockholders' equity | $ 131,048 | $ (1,763) | $ 129,285 |
| | | | |
| **Condensed Consolidated Statement of Operations Data (in thousands):** | | | |
| Revenue | $ 8,545 | $ 677 | $ 9,222 |
| General and administrative expenses | 4,932 | (73) | 4,859 |
| Loss from operations | (10,683) | 604 | (10,079) |
| Loss before income taxes | (10,348) | 604 | (9,744) |
| Net loss | $ (10,348) | $ 604 | $ (9,744) |
| Comprehensive loss | $ (9,422) | $ 604 | $ (8,818) |

The application of ASC 606 did not have an impact on the Company's net cash used in operating activities for the year three months ended March 31, 2019 but did result in offsetting adjustments to net loss, change in other current and non-current assets, and the change in deferred revenue presented within the condensed consolidated statements of cash flows for that period.

**Recent Accounting Pronouncements**

In February 2016, the FASB issued Accounting Standards Update, or ASU, No. 2016-2,*Leases (Topic 842),* or ASU 2016-2. Subsequently, the FASB also issued ASU 2019-01, *Leases (Topic 842),* or ASU 2019-01: *Codification Improvements*, which updated codification language under the standard. Under the amendments in ASU 2016-2, lessees will be required to recognize (i) a lease liability, which is a lessee's obligation to make lease payments arising from a lease, measured on a discounted basis and (ii) a right-of-use asset, which is an asset that represents the lessee's right to use, or control the use of, a specified asset for the lease term for all leases (with the exception of short-term leases) at the commencement date. This guidance is effective for public emerging growth companies, like the Company, for fiscal years beginning after December 15, 2019 including interim periods within those fiscal years. Early adoption is permitted. The Company anticipates an effective date of adoption for this standard in the fourth quarter of 2019, retroactive to January 1, 2019, when the Company anticipates losing emerging growth company status. The Company has begun to assess the current state of accounting for leases, to catalog all current leases effected and to review all vendor contracts for the potential existence of a lease in order to understand the gaps between the current state and required future state and to implement the new processes and controls required. The Company currently expects that adoption of this standard will have a material increase on both total assets and liabilities in its condensed consolidated financial statements based upon the Company's current leasing obligations.

In June 2018, the FASB issued ASU No. 2018-07,*Compensation - Stock Compensation (Topic 718) Improvements to Nonemployee Share-Based Payment Accounting,* or ASU 2018-07. ASU 2018-07 expands the scope of FASB ASC Topic 718 *Compensation - Stock Compensation,* or ASC 718, to include share-based payment transactions when acquiring goods and services from nonemployees as part of the ongoing operations of the business. ASU 2018-07 will not apply in financing or

revenue-based transactions. Upon adoption of ASU 2018-07, the requirements of ASC 718 will apply such that the Company must establish the value of nonemployee awards at the date of grant, rather than remeasure the value over the life of the award. ASU 2018-07 does not change either the inputs required when pricing the option or the attribution of cost (the vesting pattern and pattern of cost recognition over that period). This guidance is effective for fiscal years beginning after December 15, 2018, including interim periods within that fiscal year. The Company also adopted this standard in the current quarter and concluded that adoption did not have a material impact on its condensed consolidated financial statements and related disclosures.

In November 2018, the FASB issued ASU No. 2018-18, *Collaborative Arrangements (Topic 808):Clarifying the Interaction between Topic 808 and Topic 606,* or ASU 2018-18. ASU 2018-18 makes targeted improvements to generally accepted accounting principles for collaborative arrangements, including: (i) clarification that certain transactions between collaborative arrangement participants should be accounted for as revenue under ASC 606 when the collaborative arrangement participant is a customer in the context of a unit of account, (ii) adding unit-of-account guidance in Topic 808 to align with the guidance in ASC 606, and (iii) a requirement that in a transaction with a collaborative arrangement participant that is not directly related to sales to third parties, presenting the transaction together with revenue recognized under ASC 606 is precluded if the collaborative arrangement participant is not a customer. This guidance is effective for fiscal years beginning after December 15, 2019, including interim periods within that fiscal year. The Company is currently evaluating the impact of adoption, if any, that this standard may have on its condensed consolidated financial statements.

The Company has considered other recent accounting pronouncements and concluded that they are either not applicable to the business or that the effect is not expected to be material to the unaudited condensed consolidated financial statements as a result of future adoption.

## 3. Revenue

### General

The Company has not generated revenue from product sales. The Company has generated revenue from contracts with customers (option, license and collaboration agreements), which include upfront payments for licenses or options to obtain licenses, payments for research and development services and milestone payments.

During the three months ended March 31, 2019 and 2018, respectively, the Company recognized revenues as follows (in thousands):

| | Three Months Ended March 31 | |
|---|---|---|
| | 2019 | 2018 |
| Revenue from contracts with customers | $ 7,534 | $ 3,444 |
| Collaboration revenue (ASC 808) | 1,011 | 617 |
| Other revenues | — | 91 |
| **Total Revenue** | $ 8,545 | $ 4,152 |

Included in the revenue from contracts with customers for the three months ended March 31, 2019 was $4.3 million that was included in the aggregated deferred liability balances at December 31, 2018.

During the three months ended March 31, 2019 and 2018, respectively, the Company recognized revenue from the following strategic partnerships and other license agreements (in thousands):

| | Three Months Ended March 31 | |
|---|---|---|
| | 2019 | 2018 |
| Seattle Genetics | $ 925 | $ 308 |
| AstraZeneca | 6,020 | 2,545 |
| Servier | 1,600 | 1,208 |
| Other | — | 91 |
| **Total Revenue** | $ 8,545 | $ 4,152 |

Under the Company´s existing strategic partnerships, the Company could receive the following potential milestone payments (in millions):

| | Research, Development & Commercial Milestones | Sales Milestones |
|---|---|---|
| Seattle Genetics | $ 769 | $ 450 |
| AstraZeneca | 1,111 | 960 |
| Servier | 971 | 881 |
| **Total potential milestone payments** | $ 2,851 | $ 2,291 |

*Seattle Genetics*

On February 8, 2018, the Company entered into a license and collaboration agreement, or the Seattle Genetics Collaboration Agreement, and a non-exclusive Anticalin platform technology license agreement, or the Seattle Genetics Platform License, and together with the Seattle Genetics Collaboration Agreement, the Seattle Genetics Agreements, with Seattle Genetics, Inc., or Seattle Genetics, pursuant to which the parties will develop multiple targeted bispecific IO treatments for solid tumors and blood cancers.

Under the terms of the Seattle Genetics Agreements, the companies will pursue multiple antibody-Anticalin fusion proteins during the research phase. The Seattle Genetics Agreements provide Seattle Genetics a base option to select up to three programs for further development. Prior to the initiation of a pivotal trial, the Company may opt into global co-development and U.S. commercialization of the second program and share in global costs and profits on an equal basis. Seattle Genetics will solely develop, fund and commercialize the other two programs. Seattle Genetics may also decide to select additional candidates from the initial research phase for further development in return for the payment to us of additional fees, milestone payments and royalties.

The Seattle Genetics Platform License grants Seattle Genetics a non-exclusive license to certain intellectual property related to the Anticalin platform technology.

Upon signing the Seattle Genetics Agreements, Seattle Genetics paid the Company a$30.0 million upfront fee and an additional $4.9 million was estimated to be paid for research and development services as reimbursement to the Company through the end of the research term. In addition, the Company may receive tiered royalties on net sales up to the low double-digits and up to $1.2 billion in total success-based research, development, commercial and sales milestones payments across the product candidates, depending on the successful development and commercialization of those candidates. If Seattle Genetics exercises its option to select additional candidates from the initial research phase for further development, payment to Pieris of additional fees, milestone payments and royalties would result.

The term of each of the Seattle Genetics Agreements ends upon the expiration of all of Seattle Genetics's payment obligations under each such agreement. The Seattle Genetics Collaboration Agreement may be terminated by Seattle Genetics on a product-by-product basis for convenience beginning 12 months after its effective date upon 90 days' notice or, for any program where a pivotal study has been initiated, upon 180 days' notice. Any program may be terminated at Seattle Genetics's option. If any program is terminated by Seattle Genetics after a pre-defined pre-clinical stage, the Company will have full rights to continue such program. If any program is terminated by Seattle Genetics prior to such pre-defined pre-clinical stage, the Company will have the right to continue to develop such program, but will be obligated to offer a co-development option to Seattle Genetics for such program. The Seattle Genetics Collaboration Agreement may also be terminated by Seattle Genetics or the Company for an uncured material breach by the other party upon 90 days' notice, subject to extension for an additional 90 days if the material breach relates to diligence obligations and subject, in all cases, to dispute resolution procedures. The Seattle Genetics Collaboration Agreement may also be terminated due to the other party's insolvency and may in certain instances, including for reasons of safety, be terminated on a product-by-product basis. Each party may also terminate the Seattle Genetics Agreements if the other party challenges the validity of any patents licensed under the Seattle Genetics Agreements, subject to certain exceptions. The Seattle Genetics Platform License will terminate upon termination of the Seattle Genetics Collaboration Agreement, whether in its entirety or on a product-by-product basis.

The Company determined that the Seattle Genetics Agreements should be combined and evaluated as a single arrangement under ASC 606 as they were executed on the same date. The arrangement with Seattle Genetics provides for the transfer of the following goods or services: (i) three candidate research licenses that each consist of a non-exclusive platform technology license, a co-exclusive candidate research license, and research and development services, (ii) research, development and manufacturing services

associated with each candidate research license, (iii) participation on various governance committees, and (iv) two antibody target swap options which were assessed as material rights.

Management evaluated all of the promised goods or services within the contract and determined which of those were separate performance obligations. The Company determined that the licenses granted, at arrangement inception, should be combined with the research and development services to be provided for the related antibody target programs as they are not capable of being distinct. A third party would not be able to provide the research and development services due to the specific nature of the intellectual property and knowledge required to perform the services, and Seattle Genetics could not benefit from the licenses without the corresponding services. The Company determined that the participation on the various governance committees was distinct as the services could be performed by an outside party.

As a result, management concluded there are six separate performance obligations at the inception of the Seattle Genetics Agreements: (i) three combined performance obligations, each comprised of a non-exclusive platform technology license, a co-exclusive candidate research license, and research and development services for the first three approved Seattle Genetics antibody target programs, (ii) two performance obligations each comprised of a material right for an antibody target swap option for the first and the second approved Seattle Genetics antibody target for no additional consideration, and (iii) one performance obligation comprised of the participation on the various governance committees.

The Company allocated consideration to the performance obligations based on the relative proportion of their standalone selling prices. The Company developed standalone selling prices for licenses by applying a risk adjusted, net present value, estimate of future potential cash flows approach, which included the cost of obtaining research and development services at arm's length from a third-party provider, as well as internal full-time equivalent costs to support these services. The Company developed the standalone selling price for committee participation by using management's estimate of the anticipated participation hours multiplied by a market rate for comparable participants.

The transaction price at inception is comprised of fixed consideration of $30.0 million in upfront fees and variable consideration of $4.9 million of estimated research and development services to be reimbursed as research and development occurs through the research term. The $30.0 million upfront fee, which represents the fixed consideration in the transaction price, was allocated to each of the performance obligations based on the relative proportion of their standalone selling prices. The $4.9 million in variable consideration related to the research and development services is allocated specifically to the three target program performance obligations based upon the budgeted services for each program.

The amounts allocated to the performance obligations for the three research programs will be recognized on a proportional performance basis through the completion of each respective estimated research term of the individual research programs. The amounts allocated to the material right for the antibody target swap option will be recognized either at the time the material right expires or, if exercised, on a proportional performance basis over the estimated research term for that program. The amounts allocated to the participation on each of the committees will be recognized straight-line over the anticipated research term for all research programs. As of March 31, 2019, there was $26.4 million of aggregate transaction price allocated to remaining performance obligations.

Under the Seattle Genetics Agreements, the Company is eligible to receive various research, development, commercial and sales milestones. There is uncertainty that the events to obtain the research and development milestones will be achieved given the nature of clinical development and the stage of the Company's technology. The Company has thus determined that all research and development milestones will be constrained until it is deemed probable that a significant revenue reversal will not occur.

As of March 31, 2019, there is $4.8 million and $17.3 million of current and non-current deferred revenue, respectively, related to the Seattle Genetics Agreements.

*AstraZeneca*

On May 2, 2017, the Company entered into a license and collaboration agreement, or the AstraZeneca Collaboration Agreement, and a non-exclusive Anticalin platform technology license agreement, or AstraZeneca Platform License, and together with the AstraZeneca Collaboration Agreement, the AstraZeneca Agreements, with AstraZeneca AB, or AstraZeneca, which became effective on June 10, 2017, following expiration of the waiting period under the Hart-Scott-Rodino Antitrust Improvements Act of 1976. Under the AstraZeneca Agreements the parties will advance several novel inhaled Anticalin proteins.

In addition to the Company's lead inhaled drug candidate, PRS-060, or the AstraZeneca Lead Product, the Company and AstraZeneca will also collaborate to progress four additional novel Anticalin proteins against undisclosed targets for respiratory diseases, or the AstraZeneca Collaboration Products, and together with the AstraZeneca Lead Product, the AstraZeneca Products.

The Company is responsible for advancing the AstraZeneca Lead Product through its phase 1 study, with the associated costs funded by AstraZeneca. The parties will collaborate thereafter to conduct a phase 2a study in asthma patients, with AstraZeneca continuing to fund development costs. After completion of the phase 2a study, Pieris has the option to co-develop the AstraZeneca Lead Product and also has the option to co-commercialize the AstraZeneca Lead Product in the United States. For the AstraZeneca Collaboration Products, the Company will be responsible for the initial discovery of the novel Anticalin proteins, after which AstraZeneca will take the lead on continued development of the AstraZeneca Collaboration Products. The Company has the option to co-develop two of the four AstraZeneca Collaboration Products beginning at a pre-defined preclinical stage and would also have the option to co-commercialize these two programs in the United States, while AstraZeneca will be responsible for development and commercialization of the other programs worldwide.

The term of each of the AstraZeneca Agreements ends upon the expiration of all of AstraZeneca's payment obligations under such agreement. The AstraZeneca Collaboration Agreement may be terminated by AstraZeneca in its entirety for convenience beginning 12 months after its effective date upon 90 days' notice or, if the Company has obtained marketing approval for the marketing and sale of a product, upon 180 days' notice. Each program may be terminated at AstraZeneca's option; if any program is terminated by AstraZeneca, the Company will have full rights to such program. The AstraZeneca Collaboration Agreement may also be terminated by AstraZeneca or the Company for material breach upon 180 days' notice of a material breach (or 30 days with respect to payment breach), provided that the applicable party has not cured such breach by the permitted cure period (including an additional 180 days if the breach is not susceptible to cure during the initial 180-day period) and dispute resolution procedures specified in the agreement have been followed. The AstraZeneca Collaboration Agreement may also be terminated due to the other party's insolvency and may in certain instances be terminated on a product-by-product and/or country-by-country basis. Each party may also terminate an AstraZeneca Agreement if the other party challenges the validity of patents related to certain intellectual property licensed under such AstraZeneca Agreement, subject to certain exceptions for infringement suits, acquisitions and newly-acquired licenses. The AstraZeneca Platform License will terminate upon termination of the AstraZeneca Collaboration Agreement, on a product-by-product and/or country-by-country basis.

At inception, AstraZeneca is granted the following licenses: (i) research and development license for the AstraZeneca Lead Product, (ii) commercial license for the AstraZeneca Lead Product, (iii) individual research licenses for each of the four AstraZeneca Collaboration Products, (iv) individual commercial licenses for each of the four AstraZeneca Collaboration Products, and (v) individual non-exclusive platform technology licenses for the AstraZeneca Lead Product and the four AstraZeneca Collaboration Products. AstraZeneca will be granted individual development licenses for each of the four AstraZeneca Collaboration Products upon completion of the initial discovery of Anticalin proteins.

The collaboration will be managed on an overall basis by a Joint Steering Committee, or JSC, formed by an equal number of representatives from the Company and AstraZeneca. In addition to the JSC, the AstraZeneca Collaboration Agreement also requires each party to designate an alliance manager to facilitate communication and coordination of the parties' activities under the agreement, and further requires participation of both parties on a joint development committee, or JDC, and a commercialization committee. The responsibilities of these committees vary, depending on the stage of development and commercialization of each product.

Under the AstraZeneca Agreements, the Company received an upfront, non-refundable payment of $45.0 million. In addition, the Company will receive payments to conduct a phase 1 clinical study for the AstraZeneca Lead Product. The Company is also eligible to receive research, development, commercial, sales milestone payments and royalty payments. The Company may receive tiered royalties on sales of potential products commercialized by AstraZeneca and for co-developed products, gross margin share on worldwide sales equal dependent on the Company's level of committed investment.

Prior to the adoption of ASC 606, the budgeted research and development services for the AstraZeneca Lead Product increased and were approved by the JSC. The increases included additional phase 1 services as well as the addition of certain phase 2a services. The Company determined that these increases were contract modifications. Upon the adoption of ASC 606, the Company reflected the aggregate effects of these modifications as of the last modification date.

The Company determined that the AstraZeneca Agreements should be combined and evaluated as a single arrangement under ASC 606 as they were executed on the same date. The arrangement with AstraZeneca, including the impact of any modifications, provides for the transfer of the following goods and services: (i) five non-exclusive platform technology licenses, (ii) research and development license for the AstraZeneca Lead Product, (iii) commercial license for the AstraZeneca Lead Product, (iv) development and manufacturing services for the AstraZeneca Lead Product (or the phase 1 services), (v) technology transfer services for the AstraZeneca Lead Product, (vi) research services related to the AstraZeneca Lead Product, (vii) participation on each of the committees, (viii) four research licenses for the AstraZeneca Collaboration Products, (ix) four commercial licenses for the AstraZeneca Collaboration Products, (x) research services for the AstraZeneca Collaboration Products and (xi) certain phas

e 2a services for the AstraZeneca Lead Product. Additionally, as the development licenses on the four AstraZeneca Collaboration Products may be granted at a discount in the future, the Company determined such discounts should be assessed as material rights at inception.

Management evaluated all of the promised goods or services within the contract and determined which of those were separate performance obligations. The Company determined that the licenses granted for the AstraZeneca Lead Product at the inception of the arrangement should be combined with the research services related to the AstraZeneca Lead Product and the licenses granted for the AstraZeneca Collaboration Products should be combined with the research services for the AstraZeneca Collaboration Products, as the licenses are not capable of being distinct. A third party would not be able to provide the research and development services, due to the specific nature of the intellectual property and knowledge required to perform the services, and AstraZeneca could not benefit from the licenses without the corresponding services. The Company also determined that each of the phase 1 services and the phase 2a services for the AstraZeneca Lead Product were distinct and that the participation on the various committees was also distinct as all of the phase 1 services, phase 2a services and the committee services could be performed by an outside party. The Company determined that the commercial licenses for the AstraZeneca Collaboration Products granted at the inception of the arrangement should be combined with the development licenses for the AstraZeneca Collaboration Products as the company would not benefit from the commercial license without the ability to develop each product.

As a result, management concluded that there were16 performance obligations: (i) combined performance obligation comprised of a non-exclusive platform technology license, research and development license, and commercial licenses for the AstraZeneca Lead Product and research services for the AstraZeneca Lead Product, (ii) combined performance obligation comprised of development and manufacturing services, and technology transfer services for the AstraZeneca Lead Product, (iii) committee participation, (iv-vii) four combined performance obligations each comprised of a non-exclusive platform technology license, research licenses, and research services for each AstraZeneca Collaboration Product, (viii-xi) four performance obligations comprised of a material right to acquire the development licenses granted for the AstraZeneca Collaboration Products, (xii-xv) four performance obligations comprised of the commercial licenses granted for the AstraZeneca Collaboration Products and (xvi) phase 2a services.

The Company allocated consideration to the performance obligations based on the relative proportion of their standalone selling prices. The Company developed standalone selling prices for licenses and corresponding research services by applying a risk adjusted, net present value, estimate of future potential cash flow approach, which included the cost of obtaining research services at arm's length from a third-party provider, as well as internal full-time equivalent costs to support these services. The Company developed its standalone selling price for development and manufacturing services and technology transfer services for the AstraZeneca Lead Product using estimated internal and external costs to be incurred.

The Company developed its standalone selling price for committee participation by using management's estimate of the anticipated participation hours multiplied by a market rate for comparable participants.

The Company developed its standalone selling price for the commercial licenses and material rights granted on the development licenses by probability weighting multiple cash flow scenarios using the income approach.

The transaction price is comprised of fixed consideration of $45.0 million in upfront fees and variable consideration of (i) $14.2 million in estimated phase 1 services, (ii) $12.5 million in milestone payments achieved upon the initiation of a phase 1 study in December 2017, and (iii) $4.7 million in estimated phase 2a services. The $45.0 million upfront fee, which represents the fixed consideration in the transaction price, was allocated to each of the performance obligations based on the relative proportion of their standalone selling prices. Variable consideration of $14.2 million is related to the phase 1 services and will be allocated entirely to the performance obligation to which they relate. Variable consideration of $12.5 million related to the phase 1 trial milestone will be allocated by relative selling price to the combined performance obligation comprised of a non-exclusive platform technology license, research and development license and commercial licenses for the AstraZeneca Lead Product and research services for the AstraZeneca Lead Product, and the combined performance obligation comprised of development and manufacturing services and technology transfer services for the AstraZeneca Lead Product performance obligations. Variable consideration of $4.7 million for phase 2a services will be allocated specifically to the related performance obligation.

The amounts allocated to the license performance obligation for the AstraZeneca Lead Product and the four performance obligations for the four research licenses for AstraZeneca Collaboration Products will be recognized on a proportional performance basis as the activities are conducted over the life of the arrangement. The amounts allocated to the performance obligation for phase 1 services, technology transfer services for the AstraZeneca Lead Product will be recognized on a proportional performance basis over the estimated term of development through phase 2a study. The amounts allocated to the performance obligation for phase 2a services for the AstraZeneca Lead Product will be recognized on a proportionate performance basis over an estimated term of 12 months. The amounts allocated to the performance obligation for participation on each of the committees will be recognized on a straight-line basis over the expected term of development of the AstraZeneca Lead Product and the AstraZeneca Collaboration Products. The term of performance is approximately five years. The amounts allocated to the four performance obligations for the material rights to acquire a development license and the four performance obligations for commercial licenses for the AstraZeneca Collaboration Products will be recognized upon exercise of the specific material right and delivery of each of the development licenses. As of March 31,

2019, there was $39.5 million of aggregate transaction price allocated to remaining performance obligations.

Additionally, the Company evaluated payments required to be made between both parties as a result of the shared development costs of the AstraZeneca Lead Product and the two AstraZeneca Collaboration Products for which the Company has a co-development option. The Company will classify payments made as a reduction of revenue and will classify payments received as revenue in the period they are earned.

Under the AstraZeneca Agreements, the Company is eligible to receive various research, development, commercial and sales milestones. There is uncertainty that the events to obtain the research and development milestones will be achieved given the nature of clinical development and the stage of the Company's technology. The Company has thus determined that all research and development milestones, other than the phase 1 initiation milestone achieved in December 2017 and included in the impact of adoption of ASC 606, will be constrained until it is deemed probable that a significant revenue reversal will not occur.

As of March 31, 2019, there is $13.1 million and $18.2 million of current and non-current deferred revenue, respectively, related to the AstraZeneca Agreements.

The Company incurred $1.6 million of third-party success fees to obtain the contract with AstraZeneca. Upon adoption of ASC 606, the Company capitalized $1.1 million in accordance with ASC 340. As of March 31, 2019, the remaining balance of the asset recognized from transaction costs to obtain the AstraZeneca contract is $1.0 million. Amortization during the three months ended March 31, 2019 was $0.1 million.

*Servier*

On January 4, 2017, the Company entered into a license and collaboration agreement, or Servier Collaboration Agreement, and a non-exclusive Anticalin platform license agreement, or Servier Platform License, and together with the Servier Collaboration Agreement, the Servier Agreements, with Les Laboratoires Servier and Institut de Recherches Internationales Servier, or Servier, pursuant to which the Company and Servier will initially pursue five bispecific therapeutic programs.

Five committed programs have been defined, which may combine antibodies from the Servier portfolio withone or more Anticalin proteins based on the Company's proprietary platform to generate innovative IO bispecific drug candidates, or the Collaboration Products. The collaboration may be expanded by up to three additional therapeutic programs. The Company has the option to co-develop and retain commercial rights in the United States for up to three programs beyond PRS-332, or the Co-Development Collaboration Products, while Servier will be responsible for development and commercialization of the other programs worldwide, or the Servier Worldwide Collaboration Products. Each party is responsible for an agreed upon percentage of shared costs, as set forth in the budget for the collaboration plan, and further discussed below.

Co-Development Collaboration Products may be jointly developed, according to a collaboration plan, through marketing approval from the U.S. Food and Drug Administration or the European Medicines Agency. Servier Worldwide Collaboration Products may be jointly developed, according to a collaboration plan, through specified preclinical activities, at which point Servier becomes responsible for further development of the Collaboration Product.

At inception, Servier was granted the following licenses: (i) development license for PRS-332, (ii) commercial license for PRS-332, (iii) individual research licenses for each of the four Collaboration Products, and (iv) individual non-exclusive platform technology licenses for each of PRS-332 andfour Collaboration Products. Upon achievement of certain development activities, specified by the collaboration for each Servier Agreement, Servier will be granted a development license and a commercial license. For PRS-332 and Co-Development Collaboration Products, the licenses granted are with respect to the entire world except for the United States. For Servier Worldwide Collaboration Products, the licenses granted are with respect to the entire world.

The Servier Agreements will be managed on an overall basis by a joint executive committee, or JEC, formed by an equal number of members from the Company and Servier. Decisions by the JEC will be made by consensus, however, in the event of a disagreement, each party will have final-decision making authority as it relates to the applicable territory in which such party has commercialization rights for the applicable product. In addition to the JEC, the Servier Collaboration Agreement requires the participation of both parties on: (i) a JSC, (ii) a JDC, (iii) a joint intellectual property committee, or JIPC, and (iv) a joint research

committee, or JRC. The responsibilities of these committees vary, depending on the stage of development and commercialization of PRS-332 and each of the Collaboration Products.

For PRS-332 and Co-Development Collaboration Products, the Company and Servier are responsible for an agreed upon percent of the shared costs required to develop the products through commercialization. In the event that the Company fails to exercise their option to co-develop the Co-Development Collaboration Products, Servier has the right to continue with the development and will be responsible for all costs required to develop the products through commercialization.

Under the Servier Agreements, the Company received an upfront, non-refundable payment of €30.0 million (approximately $32.0 million). In addition, the Company is eligible to receive research, development, commercial and sales milestone payments as well as tiered royalties up to low double digits on the sales of commercialized products in the Servier territories. The Company achieved two preclinical milestones under the program, one in December 2018 for €0.5 million (approximately $0.6 million) and another in February 2019 for €1.5 million (approximately $1.7 million), both of which became billable on their respective achievement dates.

The initial research collaboration term, as it relates to PRS-332 and Collaboration Products, shall continue forthree years from the effective date and may be mutually extended for two one-year terms consecutively applied.

The term of each Servier Agreement ends upon the expiration of all of Servier's payment obligations under such Servier Agreement. The Servier Agreements may be terminated by Servier for convenience beginning 12 months after their effective date upon 180 days' notice. The Servier Agreements may also be terminated by Servier or the Company for material breach upon 90 days' or 120 days' notice of a material breach, with respect to the Servier Collaboration Agreement and the Servier Platform License, respectively, provided that the applicable party has not cured such breach by the applicable 90-day or 120-day permitted cure period, and dispute resolution procedures specified in the applicable Servier Agreement have been followed. The Servier Agreements may also be terminated due to the other party's insolvency or for a safety issue and may in certain instances be terminated on a product-by-product and/or country-by-country basis. The Servier Platform License will terminate upon termination of the Servier Collaboration Agreement, on a product-by-product and/or country-by-country basis.

As the Company and Servier are considered to be active participants in the Servier Agreements and are exposed to significant risks and rewards, certain units of account within the Servier Agreements are within the scope of ASC 808. The arrangement with Servier provides for the transfer of the following goods and services: (i) five non-exclusive platform technology licenses, (ii) development license for PRS-332, (iii) commercial license for PRS-332, (iv) research and development services for PRS-332, (v) participation on each of the committees, (vi) four research licenses for Collaboration Products, and (vii) research and development services for the Collaboration Products. Additionally, as the development and commercial licenses on the four Collaboration Products may be granted at a discount in the future, the Company determined such discounts should be assessed as material rights at inception.

Management evaluated all of the promised goods or services within the contract and determined which of those were separate performance obligations. The Company determined the licenses granted, at arrangement inception, should be combined with the research and development services to be provided for PRS-332 and Collaboration Products, over the term of the Servier Agreements, as the licenses are not capable of being distinct. A third party would not be able to provide the research and development services, due to the specific nature of the intellectual property and knowledge required to perform the services, and Servier could not benefit from the licenses without the corresponding services. The Company determined that the participation on the various committees was distinct as the services could be performed by an outside party.

As a result, management concluded there are14 performance obligations at inception of the Servier Agreements. The following performance obligations are within the scope of ASC 808: (i) combined performance obligation comprised of a non-exclusive platform technology license, commercial license, development license and research and development services for PRS-332, (ii) four separate performance obligations each comprised of a combined non-exclusive platform technology license, research license and research and development services for each Co-Developed Collaboration Product (iii) one performance obligation comprised of participation in the various governance committees, and (iv) four combined performance obligations comprised of the development and commercial licenses granted for the Co-Developed Collaboration Products (and corresponding discounts) upon the achievement of specified preclinical activities, resulting in material rights. The following performance obligations are within the scope of ASC 606: (i) two separate performance obligations each comprised of a combined non-exclusive platform technology license, research license and research and development services for each Servier Worldwide Collaboration Product, and (ii) two combined performance obligations comprised of the development and commercial licenses granted for the Servier Worldwide Collaboration Products (and corresponding discounts) upon the achievement of specified preclinical activities, resulting in material rights.

The Company allocated consideration to the performance obligations based on the relative proportion of their standalone selling prices. The Company developed its standalone selling prices for licenses by applying a risk adjusted, net present value, estimate of future potential cash flows approach, which included the cost of obtaining research and development services at arm's length from a third-party provider, as well as internal full-time equivalent costs to support these services.

The Company developed its estimate of standalone selling price for committee participation by using management's estimate of the anticipated participation hours multiplied by a market rate for comparable participants.

The Company developed its estimate of standalone selling price for the material rights granted on the development and commercial licenses granted for the Collaboration Products by probability weighting multiple cash flow scenarios using the income approach.

The transaction price at inception is comprised of the fixed upfront fee of€30.0 million (approximately $32.0 million) and was allocated to the performance obligations based on the relative proportion of their standalone selling prices.

The amounts allocated to the performance obligation for PRS-332 and the four performance obligations for the four research and development licenses for Collaboration Products will be recognized on a proportional performance basis as the activities are conducted over the life of the arrangement. The term of the performance at inception of the Servier Agreements for PRS-332 and each of the Co-Developed Collaboration Products may be through approval of certain regulatory bodies; a period which could be many years. The term of the performance for each of the other two Servier Worldwide Collaboration Products is through the initial research and collaboration term, plus potential extensions. The amounts allocated to the performance obligation for participation on each of the committees will be recognized on a straight-line basis over the anticipated performance period over the entirety of the arrangement with Servier. The amounts allocated to the four performance obligations for the material rights to acquire development and commercial licenses for the Co-Developed Collaboration Products are granted in the future will be recognized over time upon delivery of each of the licenses through marketing approval. The amounts allocated to the four performance obligations for the material rights to acquire development and commercial licenses for the Servier Developed Collaboration Products are granted in the future will be recognized upon delivery of each of the licenses. As of March 31, 2019, there was $31.6 million of aggregate transaction price allocated to remaining performance obligations.

Additionally, the Company evaluated payments required to be made between both parties as a result of the shared development costs of PRS-332 and Collaboration Products. The Company will classify payments made as a reduction of revenue and will classify payments received as revenue, in the period they are earned.

Under the Servier Agreements the Company is eligible to receive various research, development, commercial and sales milestones. There is uncertainty that the events to obtain the research and development milestones will be achieved given the nature of clinical development and the stage of the Company's technology. The Company has thus determined that all research and development milestones will be constrained until it is deemed probable that a significant revenue reversal will not occur.

As of March 31, 2019, there is $7.4 million and $24.2 million of current and non-current deferred revenue, respectively, related to the Servier Agreements.

The Company incurred costs to obtain the contract with Servier. Upon adoption of ASC 606, the Company capitalized $0.5 million of third-party service fees in accordance with ASC 340. As of March 31, 2019, the remaining balance of the asset recognized from costs to obtain the Servier contract is $0.5 million.

*ASKA*

On February 27, 2017 the Company entered into an exclusive option agreement, or the ASKA Option Agreement, with ASKA Pharmaceutical Co., Ltd., or ASKA, pursuant to which Pieris granted ASKA an option to acquire (1) a non-exclusive license to certain intellectual property rights associated with the Company's Anticalin platform and (2) an exclusive license to certain intellectual property rights specifically related to the Company's PRS-080 Anticalin protein in order to develop, manufacture, import, sale, export and offer for sale and export any pharmaceutical formulation containing PRS-080, the Company's PEGylated Anticalin protein targeting hepcidin, or the Licensed Product, in Japan and certain other Asian territories.

Pieris is obliged to use commercially reasonable efforts to complete the phase 2a study for PRS-080 and to submit to ASKA, in writing, the final results of the study when available. Upon receipt, ASKA will have 60 days to evaluate the results of the phase 2a study, or the Evaluation Period. ASKA agreed to notify the Company, in writing, of its decision to exercise its option to acquire rights to the Licensed Product. If the phase 2a study meets the applicable success criteria and ASKA fails to provide notification that it will exercise its option, ASKA shall pay the Company an additional fee within 30 days of the end of the Evaluation Period.

If ASKA exercises the option, ASKA and the Company will enter into a separate definitive arrangement governing the future development and commercialization activities.

The Company determined that the completed phase 2a study represents the sole good or service to be transferred, and the only performance obligation under the ASKA Option Agreement for which an upfront payment of $2.75 million was received from ASKA. The $2.75 million fixed upfront payment represents the transaction price at inception. The additional fee due if the phase 2a study meets the applicable success criteria and ASKA fails to provide notification that it will exercise its option represents variable consideration and will be constrained until it is deemed probable that a significant revenue reversal will not occur.

While the completion of the phase 2a study requires the completion of a number of actions, the Company determined that the finalization of the data and evaluation of results of the phase 2a study is the point at which revenue would be recognized. Therefore, no revenue was recognized in connection with this arrangement for the years ended December 31, 2018 and 2017, respectively. As of March 31, 2019, there is $2.9 million of current deferred revenue related to the ASKA Option Agreement.

In connection with obtaining the contract with ASKA, the Company additionally incurred $0.3 million in third-party service fees which were capitalized in accordance with ASC 340. As of March 31, 2019, the remaining balance of the asset recognized from costs to obtain the ASKA contract is $0.3 million.

**Contract Balances**

The Company receives payments from its collaboration partners based on payments established in each contract. Upfront payments and fees are recorded as deferred revenue upon receipt or when due until such time as the Company satisfies its performance obligations under each arrangement. A contract asset is a conditional right to consideration in exchange for goods or services that the Company has transferred to a customer. Amounts are recorded as accountings receivable when the Company's right is unconditional.

There were no additions to deferred revenue during the three months ended March 31, 2019 and the reductions in deferred revenue of $4.3 million were a result of ongoing activities to complete performance obligations under the various agreements.

## 4. Cash, cash equivalents and investments

As of March 31, 2019 and December 31, 2018, cash, cash equivalents and investments comprised of funds in depository, money market accounts, U.S. treasury securities, asset backed securities and corporate bonds. The following table presents the cash equivalents and investments carried at fair value in accordance with the hierarchy defined in Note 2 (in thousands):

| | Total | Quoted prices in active markets (Level 1) | Significant other observable inputs (Level 2) | Significant unobservable inputs (Level 3) |
|---|---|---|---|---|
| **March 31, 2019** | | | | |
| Money market funds, included in cash equivalents | $ 5,730 | $ 5,730 | $ — | $ — |
| Investments - U.S. treasuries | 12,531 | 12,531 | — | — |
| Investments - Asset-backed securities | 7,230 | — | 7,230 | — |
| Investments - Corporate bonds | 38,924 | — | 38,924 | — |
| Total | $ 64,415 | $ 18,261 | $ 46,154 | $ — |
| | | | | |
| **December 31, 2018** | | | | |
| Money market funds, included in cash equivalents | $ 7,791 | $ 7,791 | $ — | $ — |
| Corporate bonds, included in cash equivalents | 10,910 | — | 10,910 | — |
| Investments - U.S. treasuries | 7,518 | 7,518 | — | — |
| Investments - Asset-backed securities | 5,758 | — | 5,758 | — |
| Investments - Corporate bonds | 39,964 | — | 39,964 | — |
| Total | $ 71,941 | $ 15,309 | $ 56,632 | $ — |

Cash equivalents and marketable securities have been initially valued at the transaction price and subsequently valued, at the end of each reporting period, utilizing third party pricing services or other market observable data. The pricing services utilize industry standard valuation models, including both income and market-based approaches and observable market inputs to determine value. The Company validates the prices provided by its third-party pricing services by reviewing their pricing methods and obtaining market values from other pricing sources, as needed. After completing its validation procedures, the Company did not adjust any fair value measurements provided by the pricing services as of March 31, 2019.

Cash equivalents and investments at March 31, 2019 consist of the following (in thousands):

| | Contractual maturity (in days) | Amortized Cost | Unrealized gains | Unrealized losses | Fair Value |
|---|---|---|---|---|---|
| **Investments** | | | | | |
| U.S. treasuries | 60-165 | $ 12,500 | $ 30 | $ — | $ 12,530 |
| Asset-backed securities | 106-169 | 7,207 | 23 | — | 7,230 |
| Corporate bonds | 1-194 | 38,787 | 138 | — | 38,925 |
| Total | | $ 58,494 | $ 191 | $ — | $ 58,685 |

The Company did not record realized gains or losses from the maturity of available-for-sale securities during the three months ended March 31, 2019. Approximately $0.2 million in realized losses were recognized during the three months ended March 31, 2018.

## 5. Property and equipment, net

Property and equipment are summarized as follows (in thousands):

| | March 31 2019 | December 31, 2018 |
|---|---|---|
| Laboratory equipment | $ 7,165 | $ 7,431 |
| Office and computer equipment | 683 | 661 |
| Leasehold improvements | 322 | 323 |
| Property and equipment at cost | 8,170 | 8,415 |
| Accumulated depreciation | (3,277) | (3,366) |
| **Property and equipment, net** | $ 4,893 | $ 5,049 |

## 6. Accrued Expenses

Accrued expenses and other current liabilities consisted of the following (in thousands):

| | March 31 2019 | December 31, 2018 |
|---|---|---|
| Accrued license obligations | $ 2,520 | $ 2,523 |
| Compensation expense | 1,083 | 2,380 |
| Professional fees | 1,259 | 1,945 |
| Research and development fees | 2,399 | 943 |
| Audit and tax fees | 616 | 378 |
| Other current liabilities | 1,339 | 945 |
| Total | $ 9,216 | $ 9,114 |

## 7. Stockholders´ Equity

The Company had 49,151,219 shares of common stock and 7,907 shares of preferred stock outstanding as of March 31, 2019, both with a par value of $0.001 per share.

### Series B Preferred Stock

On January 30, 2019, the Company and certain entities affiliated with Biotechnology Value Fund, L.P., or BVF, entered into an exchange agreement pursuant to which BVF agreed to exchange an aggregate of 5,000,000 shares of the Company's common stock owned by BVF for an aggregate of 5,000 shares of Series B Preferred Stock. On January 31, 2019, the Company designated 5,000 shares of its authorized and unissued preferred stock as Series B Preferred Stock and filed a Certificate of Designation of Series B Convertible Preferred Stock of Pieris Pharmaceuticals, Inc., or the Series B Certificate of Designation, with the Nevada Secretary of State.

Each share of Series B Preferred Stock is convertible into 1,000 shares of the Company's common stock (subject to adjustment as provided in the Series B Certificate of Designation) at any time at the option of the holder, provided that the holder is prohibited from converting the Series B Preferred Stock into shares of the Company's common stock if, as a result of such conversion, the holder, together with its affiliates, would own more than 9.99% of the total number of shares of Common Stock then issued and outstanding, or the Beneficial Ownership Limitation. The holder may reset the Beneficial Ownership Limitation to a higher or lower number, not to exceed 19.99% of the total number of common shares issued and outstanding immediately after giving effect to a conversion, upon providing written notice to the Company. Any such notice providing for an increase to the Beneficial Ownership Limitation will be effective 61 days after delivery to the Company.

In the event of the Company's liquidation, dissolution or winding up, subject to the rights of holders of Senior Securities (defined below), holders of Series B Preferred Stock are entitled to receive a payment equal to $0.001 per share of Series B Preferred Stock before any proceeds are distributed to the holders of common stock and Junior Securities (defined below) and pari passu with any distributions to the holders of the previously issued Series A convertible preferred stock, or the Series A Preferred Stock, plus an additional amount equal to any dividends declared but unpaid on such shares. However, if the assets of the Company are insufficient to comply with the preceding sentence, then all remaining assets of the Company shall be distributed ratably to holders of the shares of the Series B Preferred Stock and Parity Securities (defined below).

Shares of Series B Preferred Stock generally have no voting rights, except as required by law and except that the consent of holders of a majority of the then outstanding Series B Preferred Stock is required to amend the terms of the Series B Certificate of Designation. Holders of Series B Preferred Stock are entitled to receive any dividends payable to holders of the Company's common stock and rank:

- senior to all of the Company's common stock;
- senior to any class or series of capital stock of the Company created after the designation of the Series B Preferred Stock specifically ranking by its terms junior to the Series B Preferred Stock, or the Junior Securities;
- on parity with all shares of Series A Preferred Stock and any class or series of capital stock of the Company created after the designation of the Series B Preferred Stock specifically ranking by its terms on parity with the Series B Preferred Stock, or the Parity Securities; and
- junior to any class or series of capital stock of the Company created after the designation of the Series B Preferred Stock specifically ranking by its terms senior to the Series B Preferred Stock, or the Senior Securities;

in each case, as to distributions of assets upon the Company's liquidation, dissolution or winding up whether voluntarily or involuntarily and/or the right to receive dividends.

**8. Net Loss per Share**

Basic net loss per share is calculated by dividing net income (loss) by the weighted average shares outstanding during the period, without consideration for common stock equivalents. Diluted net loss per share is calculated by adjusting weighted average shares outstanding for the dilutive effect of common stock equivalents outstanding for the period, determined using the treasury-stock and if-converted methods. For purposes of the diluted net loss per share calculation, preferred stock, stock options and warrants are considered to be common stock equivalents but have been excluded from the calculation of diluted net loss per share, as their effect would be anti-dilutive for all periods presented. Therefore, basic and diluted net loss per share were the same for all periods presented.

For the three months ended March 31, 2019 and 2018, and as calculated using the treasury stock method, approximately 21.6 million and 14.7 million of weighted average shares, respectively, were excluded from the calculation of diluted weighted average shares outstanding as their effect was anti-dilutive.

**9. License and Transfer Agreement**

**License and Collaboration Agreement with the Technical University of Munich**

The Company and the Technical University of Munich, or TUM, initiated discussions in the second quarter of 2018 to clarify, expand and restructure their 2013 research and licensing agreement with TUM, or the TUM License, including the parties' obligations under the TUM License. The TUM License assigns or exclusively licenses to the Company certain intellectual property related to the Company's Anticalin platform technology. The parties' recent discussions relate to revised commercial terms and to re-initiating additional collaborations between faculty at TUM and the Company. While an amended and restated

license agreement has not yet been completed, the Company intends to enter into such an amendment. The Company recorded the probable expected impact of the amendment in research and development expense as of December 31, 2018, which is an increase in the Company's financial obligations associated with the TUM License of approximately $2.3 million, for amounts that would be due in 2019 for 2018 and 2017 sub-licensing activities. These discussions may also lead to an increase in the Company's collaborative research activities with TUM.

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

*The interim financial statements and this Management's Discussion and Analysis of Financial Condition and Results of Operations should be read in conjunction with the financial statements and notes thereto for the year ended December 31, 2018, and the related Management's Discussion and Analysis of Financial Condition and Results of Operations, both of which are contained in our Annual Report on Form 10-K for the fiscal year ended December 31, 2018, filed with the SEC on March 18, 2019. In addition to historical information, this discussion and analysis contains forward-looking statements that involve risks, uncertainties and assumptions. Our actual results may differ materially from those anticipated in these forward-looking statements as a result of certain factors, including but not limited to those set forth under the caption "Risk Factors" in the Annual Report on Form 10-K for the fiscal year ended December 31, 2018.*

*As used in this Quarterly Report on Form 10-Q, unless the context indicates or otherwise requires, "our Company", "the Company", "Pieris", "we", "us" and "our" refer to Pieris Pharmaceuticals, Inc., a Nevada corporation, and its consolidated subsidiaries.*

*We have registered trademarks for Pieris, Anticalin and others. All other trademarks, trade names and service marks included in this Quarterly Report on Form 10-Q are the property of their respective owners. Tecentriq® (atezolizumab) is a registered trademark of Genentech, a member of the Roche Group. Use or display by us of other parties' trademarks, trade dress or products is not intended to and does not imply a relationship with, or endorsements or sponsorship of, us by the trademark or trade dress owner.*

**Overview**

We are a clinical-stage biotechnology company that discovers and develops Anticalin-based drugs to target validated disease pathways in unique and transformative ways. Our clinical pipeline includes an inhaled IL-4Rα antagonist Anticalin protein to treat uncontrolled asthma, an IO bispecific targeting HER2 and 4-1BB and a half-life optimized hepcidin-antagonizing Anticalin protein to treat anemia. Proprietary to us, Anticalin proteins are a novel class of therapeutics validated in the clinic and through partnerships with leading pharmaceutical companies. Our development programs include:

- *PRS-060*, our lead respiratory program partnered with AstraZeneca, is a drug candidate that antagonizes IL-4Rα, thereby inhibiting IL-4 and IL-13, two cytokines known to be key mediators in the inflammatory cascade that drive the pathogenesis of asthma and other inflammatory diseases.

- We are developing additional respiratory drug candidates beyond PRS-060, within and outside of the AstraZeneca alliance. The AstraZeneca alliance includes four programs beyond PRS-060. We retain co-development and co-commercialization rights to two out of those four programs. We have initiated work on the first two additional programs under the collaboration. We also initiated two new proprietary programs directed at discovering and developing Anticalin proteins for respiratory diseases during 2018. We expect to further expand our respiratory franchise with multiple new projects in 2019.

- *PRS-343,* our lead IO program, is a fusion protein comprising a HER2-targeting antibody genetically linked to 4-1BB-targeting Anticalin proteins. PRS-343 is designed to drive tumor localized T-cell activation through tumor-targeted drug clustering mediated by HER2 expressed on tumor cells. This program was the first bispecific T-cell costimulatory agonist to enter clinical development.

- We are also developing additional IO drug candidates that are multispecific Anticalin-based fusion proteins designed to engage immunomodulatory targets and consist of a variety of multifunctional biotherapeutics, including PRS-344, a bispecific antibody-Anticalin fusion protein comprising an PD-L1-targeting antibody genetically fused to Anticalin proteins specific for 4-1BB. PRS-344 is being developed as part of our IO collaboration with Servier.

- *PRS-080* is an Anticalin protein that binds to hepcidin, a natural regulator of iron in the blood. PRS-080 is designed to target hepcidin for the treatment of functional iron deficiency in anemic patients with chronic kidney disease, or CKD, particularly in end-stage renal disease patients requiring dialysis.

Our programs are in varying stages:

- PRS-060 was tested in 48 healthy volunteers at nominal dose levels ranging from 0.25 mg to 400 mg in a phase 1 single ascending dose, or SAD, study. The drug candidate was safe and well-tolerated in this study. We continue enrolling patients in a multiple ascending dose, or MAD, phase 1 study of PRS-060 versus placebo in mild asthmatics. The MAD study is evaluating safety and tolerability as well as exhaled nitric oxide, an inflammatory marker of allergic asthma. The data from the PRS-060 phase 1 SAD study will be presented at the American Thoracic Society International Conference in May 2019 and the data from the PRS-060 phase 1 MAD study will be presented at an upcoming medical meeting. PRS-060 is the lead drug candidate in Pieris' respiratory collaboration with AstraZeneca. We are sponsoring the phase 1 studies and AstraZeneca is funding the costs. AstraZeneca will conduct and fund the phase 2a study, after which we will have separate options to co-develop and co-commercialize the drug candidate in the United States.

- Our other partnered and proprietary respiratory programs are in the discovery stage; the targets and disease areas of these programs are undisclosed.

- We continue to enroll and treat patients in a phase 1 dose-escalation study of PRS-343 and intend to report comprehensive data from the study in 2019. In August 2018, we initiated a study with PRS-343 in combination with atezolizumab and also intend to report data from this study in 2019.

- For our other IO drug candidates and programs, we are conducting activities relating to candidate identification, optimization and preclinical evaluation. We have achieved two preclinical milestones in connection with the PRS-344 program, one in December 2018 and another in February 2019, triggering two milestone payments from Servier, and intend to file an IND for the drug candidate in the second half of 2019. We also executed our option to opt-into co-development and United States commercialization of PRS-344 during the first quarter of 2019.

- We completed dosing for the phase 2a study of PRS-080 in anemic, hemodialysis-dependent CKD patients in 2018 and intend to present data from that study at the 24th European Hematology Association Congress on June 16, 2019. We also plan to share these data with ASKA, at which point ASKA will decide whether to exercise its option to develop and commercialize PRS-080 in Japan and other Asian territories. Additionally, we plan to share the dataset with other parties for potential partnerships outside of the ASKA territories.

Our core Anticalin technology and platform were developed in Germany and we have collaborations with major multi-national pharmaceutical companies. In particular, we have an alliance with AstraZeneca to treat respiratory diseases and partnerships with Servier and Seattle Genetics, both in IO.

Since inception, we have devoted nearly all of our efforts and resources to our research and development activities and have incurred significant net losses. For the three months ended March 31, 2019, we reported a net loss of $10.3 million. For the three months ended March 31, 2018, we reported a net loss of $8.7 million. As of March 31, 2019, we had an accumulated deficit of $159.1 million. We expect to continue incurring substantial losses for the next several years as we continue to develop our clinical and preclinical drug candidates and programs. Our operating expenses are comprised of research and development expenses and general and administrative expenses.

We have not generated any revenues from product sales to date and we do not expect to generate revenues from product sales for the foreseeable future. Our revenues for the three months ended March 31, 2019 and 2018 were from license and collaboration agreements with our partners.

A significant portion of our operations are conducted in countries other than the United States. Since we conduct our business in U.S. dollars, our main exposure, if any, results from changes in the exchange rates between the euro and the U.S. dollar. At each period end, we remeasure assets and liabilities to the functional currency of that entity (for example, U.S. dollar payables recorded by Pieris Pharmaceuticals GmbH). Remeasurement gains and losses are recorded in the statement of operations line item "Other income (expense), net". All assets and liabilities denominated in euros are translated into U.S. dollars at the exchange rate on the balance sheet date. Revenues and expenses are translated at the weighted average rate during the period. Equity transactions are translated using historical exchange rates. All adjustments resulting from translating foreign currency financial statements into U.S. dollars are included in accumulated other comprehensive loss.

**Key Financial Terms and Metrics**

The following discussion summarizes the key factors our management believes are necessary for an understanding of our consolidated financial statements.

**Revenues**

We have not generated any revenues from product sales to date and we do not expect to generate revenues from product sales for the foreseeable future. Our revenues for the last two years have been primarily from the license and collaboration agreements with AstraZeneca, Servier and Seattle Genetics.

The revenues from AstraZeneca, Servier and Seattle Genetics have been comprised primarily of upfront payments, research and development services and milestone payments. For additional information about our revenue recognition policy, see "Note 2—Summary of Significant Accounting Policies".

**Research and Development Expenses**

The process of researching and developing drugs for human use is lengthy, unpredictable and subject to many risks. We expect to continue incurring substantial expenses for the next several years as we continue to develop our clinical and preclinical drug candidates and programs. We are unable, with any certainty, to estimate either the costs or the timelines in which those expenses will be incurred. Our current development plans focus on the following activities: Our lead respiratory program, PRS-060 and our other respiratory programs, our IO programs, currently comprised of PRS-343 as well as multiple additional proprietary and partnered programs, including PRS-344. These programs consume a large proportion of our current, as well as projected, resources.

Our research and development costs include costs that are directly attributable to the creation of certain of our Anticalin drug candidates and are comprised of:

- internal recurring costs, such as personnel-related costs (salaries, employee benefits, equity compensation and other costs), materials and supplies, facilities and maintenance costs; and
- fees paid to external parties who provide us with contract services, such as preclinical testing, manufacturing and related testing and clinical trial activities.

**General and Administrative Expenses**

General and administrative expenses consist primarily of salaries, employee benefits, equity compensation and other personnel-related costs associated with executive, administrative and other support staff. Other significant general and administrative expenses include the costs associated with professional fees for accounting, auditing, insurance costs, consulting and legal services.

**Results of Operations**

**Comparison of the three months ended March 31, 2019 and 2018**

The following table sets forth our revenues and operating expenses for the three months ended March 31, 2019 and 2018 (in thousands):

| | Three Months Ended March 31 | |
|---|---|---|
| | 2019 | 2018 |
| Revenues | $ 8,545 | $ 4,152 |
| | | |
| Research and development expenses | 14,296 | 7,936 |
| General and administrative expenses | 4,932 | 4,352 |
| Total operating expenses | 19,228 | 12,288 |
| | | |
| Interest income | 506 | 325 |
| Other income (expense), net | (171) | (903) |
| Loss before income taxes | (10,348) | (8,714) |
| Provision for income tax | — | — |
| Net loss | $ (10,348) | $ (8,714) |

*Revenues*

The following table provides a comparison of revenues for the three months ended March 31, 2019 and 2018 (in thousands):

| | Three Months Ended March 31 | | |
|---|---|---|---|
| | 2019 | 2018 | Increase/(Decrease) |
| Revenue from contract with customers | $ 7,534 | $ 3,444 | $ 4,090 |
| Collaboration revenue (ASC 808) | 1,011 | 617 | 394 |
| Other | — | 91 | (91) |
| Total Revenue | $ 8,545 | $ 4,152 | $ 4,393 |

- The $4.1 million increase in revenues from license fees in the three months ended March 31, 2019 compared to the three months ended March 31, 2018 primarily relates to the increased level of activities with respect to our collaboration agreement with AstraZeneca, specifically PRS-060, as well as full quarter of revenue recognized for our collaboration with Seattle Genetics.

- The $0.4 million increase in revenues from research and development services in the three months ended March 31, 2019 compared to the three months ended March 31, 2018 relates to increased research and development activities under our collaboration with Servier.

*Research and Development Expenses*

The following table provides a comparison of the research and development expenses for the three months ended March 31, 2019 and 2018 (in thousands):

| | Three Months Ended March 31 | | |
|---|---|---|---|
| | 2019 | 2018 | Increase/(Decrease) |
| Respiratory | $ 3,233 | $ 1,302 | $ 1,931 |
| Immuno-oncology | 5,774 | 2,006 | 3,768 |
| Anemia | 125 | 871 | (746) |
| Other R&D activities | 5,164 | 3,757 | 1,407 |
| Total | $ 14,296 | $ 7,936 | $ 6,360 |

- The $1.9 million increase for our respiratory programs period-over-period is due primarily to increases to our ongoing CMC costs incurred for phase 2a readiness for PRS-060 along with other preclinical and lab supplies spending as we initiate proprietary and partnered respiratory programs;
- The $3.8 million increase in our immuno-oncology program spending period-over-period is due primarily to an increase in clinical trials costs incurred for PRS-343 and drug product manufacturing for PRS-344;
- The $0.7 million decrease for our anemia program, PRS-080, period-over-period is mainly due to lower clinical costs as the phase 2a study winds down; and
- The $1.4 million increase in other research and development activities expenses is mainly due to higher personnel expenses, including bonus and stock compensation, due to an overall increase in headcount, and an increase in recruiting and professional services costs.

*General and Administrative Expenses*

General and administrative expenses were $4.9 million for the three months ended March 31, 2019 as compared to $4.4 million for the three months ended March 31, 2018. The period-over-period increase is due to higher salary and benefit costs due to an overall increase in headcount, as well as an increase in audit and tax expense.

*Non-operating income (expense), net*

Our non-operating income was $0.3 million for the three months ended March 31, 2019 as compared to a net non-operating expense of $0.6 million for the three months ended March 31, 2018. This increase is due to higher interest income as a result of higher interest rates despite having a smaller portfolio, and a strengthening U.S. dollar in 2019 compared to a weakening U.S. dollar in the same quarter in 2018 which resulted in lower realized losses in the current period.

**Liquidity and Capital Resources**

Through March 31, 2019, we have funded our operations primarily through private and public sales of equity, payments received under our license and collaboration agreements (including research and development services costs, upfront and milestone payments), government grants and loans.

As of March 31, 2019, we had a total of $110.8 million in cash, cash equivalents and investments. We have incurred losses in every period since inception including the three months ended March 31, 2019 and 2018, respectively, and have a total accumulated deficit of $159.1 million as of March 31, 2019.

We have several research and development programs underway in varying stages of development and we expect they will continue to require increasing amounts of cash for development, conducting clinical trials and testing and manufacturing of

product material. We expect cash necessary to fund operations will increase significantly over the next several years as we continue to conduct these activities necessary to pursue governmental regulatory approval of clinical-stage programs and our other product candidates.

The following table provides a summary of operating, investing and financing cash flows for the three months ended March 31, 2019 and 2018 respectively (in thousands):

| | Three Months Ended March 31 | |
|---|---|---|
| | 2019 | 2018 |
| Net cash provided by (used in) operating activities | (15,108) | 31,339 |
| Net cash used in investing activities | (5,316) | (8,293) |
| Net cash provided by financing activities | — | 48,159 |

There was a $46.4 million change in net cash from operating activities, as the net cash used in operating activities was $15.1 million for the three months ended March 31, 2019 compared to net cash provided by operating activities of $31.3 million for the three months ended March 31, 2018. The change is driven by lower accounts receivable and higher deferred revenue ($44.5 million in total) as a result of upfront payments from Seattle Genetics and milestone payments from AstraZeneca, which totaled $42.5 million during the quarter ended March 31, 2018. Additionally, there was a $1.6 million increase in the net loss in 2019 compared to 2018.

The decrease in net cash used in investing activities for the three months ended March 31, 2019 compared to the same period in 2018 is mainly attributable to higher investment purchases in the prior year compared to 2019.

There were no financing activities in first quarter of 2019. This is compared to $47.2 million in proceeds due to the issuance of common stock under our 2018 Offering along with $1.0 million of proceeds from the exercise of warrants and stock options for the three months ended March 31, 2018.

We expect that our existing cash, cash equivalents and investments will enable us to fund our operational and capital expenditure requirements for at least twelve months from the issuance date of these financial statements. Any requirements for additional capital will depend on many factors, including the following:

- the scope, rate of progress, results and cost of our clinical studies, preclinical testing and other related activities;
- the cost of manufacturing clinical supplies and establishing commercial supplies of our drug candidates and any products that we may develop;
- the number and characteristics of drug candidates that we pursue;
- the cost, timing and outcomes of regulatory approvals;
- the cost and timing of establishing sales, marketing and distribution capabilities;
- the terms and timing of any collaborative, licensing and other arrangements that we may establish;
- the timing, receipt and amount of sales, profit sharing or royalties, if any, from our potential products;
- the cost of preparing, filing, prosecuting, defending and enforcing any patent claims and other intellectual property rights; and
- the extent to which we acquire or invest in businesses, products or technologies, although we currently have no commitments or agreements relating to any of these types of transactions.

Due to the often-volatile nature of the financial markets, equity and debt financing(s) may be difficult to obtain. In addition, any unfavorable development or delay in the progress of our core clinical-stage programs including PRS-060 and PRS-343 could have a material adverse impact on our ability to raise additional capital.

We may seek to raise any necessary additional capital through a combination of private or public equity offerings, debt financings, collaborations, strategic alliances, licensing arrangements and other marketing and distribution arrangements. To

the extent that we raise additional capital through marketing and distribution arrangements or other collaborations, strategic alliances or licensing arrangements with third parties, we may have to relinquish valuable rights to our drug candidates, future revenue streams, research programs or product candidates or to grant licenses on terms that may not be favorable to us. If we raise additional capital through private or public equity offerings, the ownership interest of our existing stockholders will be diluted, and the terms of these securities may include liquidation or other preferences that adversely affect our stockholders' rights. If we raise additional capital through debt financing, we may be subject to covenants limiting or restricting our ability to take specific actions, such as incurring additional debt, making capital expenditures or declaring dividends.

**Off-Balance Sheet Arrangements**

We do not have any off-balance sheet arrangements, as defined under applicable SEC rules.

**Critical Accounting Policies and Estimates**

Refer to Part II, Item 7, "Critical Accounting Policies and Estimates" of our Annual Report on Form 10-K for the fiscal year ended on December 31, 2018 for a discussion of our critical accounting policies and estimates. There has been one material change to the critical accounting policies during the three months ended March 31, 2019. This change is related to revenue recognition and is described in "Note 2—Summary of Significant Accounting Policies".

This discussion and analysis of our financial condition and results of operations is based on our financial statements, which we have prepared in accordance with U.S. generally accepted accounting principles. 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. On an ongoing basis, we evaluate our estimates and judgments, including those described in greater detail below. We base our estimates on historical experience and other market-specific or other relevant assumptions that we believe to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying value of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions.

We believe that our most critical accounting policies are those relating to revenue recognition, contingencies, research and development expense and income taxes, and there have been significant changes to our revenue recognition, multiple-element and milestone accounting policies discussed in the Annual Report. Please refer to "Note 2—Summary of Significant Accounting Policies" for the updated revenue recognition policy that encompasses the changes to the historical revenue recognition, multiple-element and milestone accounting policies.

**Recently Issued Accounting Pronouncements**

We review new accounting standards to determine the expected financial impact, if any, that the adoption of each standard will have. For the recently issued accounting standards that we believe may have an impact on our consolidated financial statements, see "Note 2—Summary of Significant Accounting Policies" in our consolidated financial statements.

**Emerging Growth Company and Smaller Reporting Company Status**

The Jumpstart Our Business Startups Act of 2012 establishes a class of company called an "emerging growth company," which generally is a company whose initial public offering was completed after December 8, 2011 and had total annual gross revenues of less than $1.07 billion during its most recently completed fiscal year. Additionally, Section 12b-2 of the Exchange Act establishes a class of company called a "smaller reporting company" which, effective September 10, 2018, was amended to include companies with a public float of less than $250 million as of the last business day of its most recently completed second fiscal quarter or, if such public float is less than $700 million, had annual revenues of less than $100 million during the most recently completed fiscal year for which audited financial statements are available. Currently, we qualify as both an emerging growth company and a smaller reporting company.

As an emerging growth company and a smaller reporting company, we are eligible and have taken advantage of certain exemptions from various reporting requirements that are not available to public reporting companies that do not qualify for those classifications, including, but not limited to, the following:

- Any requirement that may be adopted by the Public Company Accounting Oversight Board regarding mandatory audit firm rotation or a supplement to the auditor's report providing additional information about the audit and financial statements, commonly known as an "auditor discussion and analysis."

- A requirement to hold a non-binding advisory stockholder vote on executive compensation or any golden parachute payments not previously approved by stockholders.

- A requirement to comply with the requirement of auditor attestation of management's assessment of internal control over financial reporting, which is required for other public reporting companies by Section 404 of the Sarbanes-Oxley Act of 2002, as amended.

- An opportunity for reduced disclosure obligations regarding executive compensation in its periodic and annual reports, including without limitation exemption from the requirement to provide a compensation discussion and analysis describing compensation practices and procedures.

- An opportunity for reduced financial statement disclosure in registration statements, which must include two years of audited financial statements rather than the three years of audited financial statements that are required for other public reporting companies.

Emerging growth companies may elect to 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. This allows an emerging growth company to delay the adoption of certain accounting standards until those standards would otherwise apply to private companies. We have elected to take advantage of the benefits of this extended transition period. Our financial statements may therefore not be comparable to those of companies that comply with such new or revised accounting standards.

For as long as we continue to be an emerging growth company and/or a smaller reporting company, we expect that we will take advantage of the reduced disclosure obligations available to us as a result of those respective classifications. We expect that we will no longer qualify as an emerging growth company on December 31, 2019 as this is the last day of the fiscal year following the fifth anniversary of the date of the first sale of our common stock pursuant to an effective registration statement under the Securities Act.

**Item 3. Quantitative and Qualitative Disclosures About Market Risk**

We are a smaller reporting company as defined by Rule 12b-2 of the Exchange Act and are not required to provide the information required under this item.

**Item 4. Controls and Procedures.**

**Evaluation of Disclosure Controls and Procedures**

Our management, with the participation of our principal executive officer and principal financial officer have evaluated the effectiveness of our disclosure controls and procedures as of the end of the period covered by this Quarterly Report on Form 10-Q. The term "disclosure controls and procedures," as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act means controls and other procedures of a company that are designed to ensure that information required to be disclosed by us in the reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported, within the time periods specified in the SEC's rules and forms, and such information is accumulated and communicated to our management, including our principal executive and principal financial officers, or persons performing similar functions, as appropriate to allow timely decisions regarding required disclosure. Our principal executive officer and principal financial officer have concluded that, based on such evaluation, our disclosure controls and procedures were not effective as of March 31, 2019 as a result of the previously reported material weakness discussed below.

A material weakness is a deficiency, or a combination of deficiencies, in internal controls over financial reporting, such that there is a reasonable possibility that a material misstatement of a company's annual or interim consolidated financial statements would not be prevented or detected on a timely basis.

In connection with the preparation of our financial statements for the year ended December 31, 2018, we concluded that we had a material weakness relating to our income tax provision process, including the evaluation of any changes resulting from the recently enacted Tax Cuts and Jobs Act, or the TCJA. The material weakness created a reasonable possibility that a material misstatement of our annual or interim consolidated financial statements may not be prevented or detected on a timely basis. The material weakness did not result in any misstatement or correction in the provision for income taxes prior to the issuance of the 2018 consolidated financial statements included in our Annual Report on Form 10-K for the fiscal year ended December 31, 2018.

Management has undertaken a remediation plan to address the control deficiency that led to the material weakness. The remediation plan includes enhancing our tax provision process, including the ongoing impact from the TCJA. We may also retain additional expert assistance, as needed, in the preparation and review of our tax provision.

Notwithstanding this material weakness, management, including our principal executive officer and principal financial officer, has concluded that the financial statements and other financial information included in this Quarterly Report on Form 10-Q, fairly present in all material respects our financial condition, results of operations and cash flows as of, and for, the periods presented.

**Changes in Internal Control over Financial Reporting**

There have been no changes in our internal control over financial reporting identified in connection with the evaluation of such internal control required by Rules 13a-15(d) and 15d-15(d) under the Exchange Act that occurred during the quarter ended March 31, 2019 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting other than the remediation efforts described above.

## PART II - OTHER INFORMATION

**Item 1. Legal Proceedings.**

As of the date of this Quarterly Report on Form 10-Q, we are not party to and our property is not subject to any material pending legal proceedings. However, from time to time, we may become involved in legal proceedings or subject to claims that arise in the ordinary course of our business activities. Regardless of the outcome, such legal proceedings or claims could have an adverse impact on us because of defense and settlement costs, diversion of management resources and other factors.

**Item 1A. Risk Factors.**

There have been no material changes from the risk factors previously disclosed in Part I, Item 1A (Risk Factors) of our Annual Report on Form 10-K for the fiscal year ended December 31, 2018.

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

None.

**Item 3. Defaults Upon Senior Securities.**

None.

**Item 4. Mine Safety Disclosures.**

Not applicable.

**Item 5. Other Information.**

None.

**Item 6. Exhibits.**

| Exhibit Number | Exhibit Description | | Incorporated by Reference herein from Form or Schedule | Filing Date | SEC File / Registration Number |
|---|---|---|---|---|---|
| 3.1 | Certificate of Designation of Series B Convertible Preferred Stock of Pieris Pharmaceuticals, Inc. | | Exhibit 3.1 to the Registrant's Current Report on Form 8-K | February 4, 2019 | 001-37471 |
| 10.1 | Exchange Agreement by and among Pieris Pharmaceuticals, Inc. and Biotechnology Value Fund, L.P., Biotechnology Value Fund II, L.P., and Biotechnology Value Trading Fund OS, L.P., dated as of January 30, 2019 | | Exhibit 10.1 to the Registrant's Current Report on Form 8-K | February 4, 2019 | 001-37471 |
| 31.1 | Certification of Principal Executive Officer Pursuant to Rules 12a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002. | * | | | |

| Exhibit Number | Exhibit Description | | Incorporated by Reference herein from Form or Schedule | Filing Date | SEC File / Registration Number |
|---|---|---|---|---|---|
| 31.2 | Certification of Principal Financial Officer and Principal Accounting Officer Pursuant to Rules 12a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002. | * | | | |
| 32.1 | Certification of Principal Executive Officer Pursuant to 18 U.S.C Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002. | ** | | | |
| 32.2 | Certification of Principal Financial Officer and Principal Accounting Officer Pursuant to 18 U.S.C Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002. | ** | | | |
| 101.INS | XBRL Instance Document | * | | | |
| 101.SCH | XBRL Taxonomy Extension Schema Document | * | | | |
| 101.CAL | XBRL Taxonomy Extension Calculation Linkbase Document | * | | | |
| 101.DEF | XBRL Taxonomy Extension Definition Linkbase Document | * | | | |
| 101.LAB | XBRL Taxonomy Extension Label Linkbase Document | * | | | |
| 101.PRE | XBRL Taxonomy Extension Presentation Linkbase Document | * | | | |

* Filed herewith.

** The certifications furnished in Exhibit 32.1 and Exhibit 32.2 hereto are deemed to accompany this Quarterly Report and will not be deemed “filed” for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, except to the extent that the registrant specifically incorporates it by reference.

**SIGNATURES**

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this Quarterly Report on Form 10-Q to be signed on its behalf by the undersigned thereunto duly authorized**.**

**PIERIS PHARMACEUTICALS, INC.**

May 10, 2019

By: /s/ Stephen S. Yoder

Stephen S. Yoder
Chief Executive Officer and President
*(Principal Executive Officer)*

May 10, 2019

By: /s/ Allan Reine

Allan Reine
Chief Financial Officer
*(Principal Financial and Accounting Officer)*

**Exhibit 31.1**

**CERTIFICATIONS UNDER**
**SECTION 302 OF**
**THE SARBANES-OXLEY ACT OF 2002**

I, Stephen S. Yoder, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Pieris Pharmaceuticals, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-1q5(f)) for the registrant and have:

a. designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

b. designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

c. evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

d. disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

a. all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

b. any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Dated: May 10, 2019

/s/ Stephen S. Yoder

Stephen S. Yoder

Title: Chief Executive Officer and President (principal executive officer)

**Exhibit 31.2**

**CERTIFICATIONS UNDER**
**SECTION 302 OF**
**THE SARBANES-OXLEY ACT OF 2002**

I, Allan Reine, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Pieris Pharmaceuticals, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

a. designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

b. designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

c. evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

d. disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

a. all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

b. any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Dated: May 10, 2019

/s/ Allan Reine

Allan Reine

Title: Chief Financial Officer (principal financial officer)

**Exhibit 32.1**

CERTIFICATIONS UNDER SECTION 906

Pursuant to 18 U.S.C. § 1350, as created by Section 906 of the Sarbanes-Oxley Act of 2002, the undersigned officer of Pieris Pharmaceuticals, Inc. (the "Company") hereby certifies, to his knowledge, that:

(i) the accompanying Quarterly Report on Form 10-Q of the Company for the fiscal quarter ended March 31, 2019 (the "Report") fully complies with the requirements of Section 13(a) or Section 15(d), as applicable, of the Securities Exchange Act of 1934, as amended; and

(ii) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Dated: May 10, 2019

/s/ Stephen S. Yoder

Stephen S. Yoder

Title: Chief Executive Officer and President
(principal executive officer)

**Exhibit 32.2**

CERTIFICATIONS UNDER SECTION 906

Pursuant to 18 U.S.C. § 1350, as created by Section 906 of the Sarbanes-Oxley Act of 2002, the undersigned officer of Pieris Pharmaceuticals, Inc. (the "Company") hereby certifies, to his knowledge, that:

(i) the accompanying Quarterly Report on Form 10-Q of the Company for the fiscal quarter ended March 31, 2019 (the "Report") fully complies with the requirements of Section 13(a) or Section 15(d), as applicable, of the Securities Exchange Act of 1934, as amended; and

(ii) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Dated: May 10, 2019

/s/ Allan Reine

Allan Reine

Title: Chief Financial Officer
(principal financial officer)