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 September 30, 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 **Boston, MA** **United States**	**02109**
(Address of principal executive offices)	**(Zip Code)**

857-246-8998

Registrant's telephone number, including area code

Securities registered pursuant to Section 12(b) of the Act:

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**

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, a smaller reporting company or an emerging growth 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 ☒

As of November 7, 2019, the registrant had 54,975,666 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. $1.0918 based on Thomson Reuters as of September 30, 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)

	September 30 2019	December 31, 2018
Assets		
Current assets:		
Cash and cash equivalents	$ 46,068	$ 74,867
Short term investments	40,175	53,240
Accounts receivable	6,952	2,701
Prepaid expenses and other current assets	4,778	4,574
Total current assets	97,973	135,382
Property and equipment, net	11,008	5,049
Other non-current assets	7,770	910
Total assets	$ 116,751	$ 141,341
Liabilities and stockholders' equity		
Current liabilities:		
Accounts payable	$ 5,436	$ 3,350
Accrued expenses and other current liabilities	7,170	9,114
Deferred revenues, current portion	27,242	35,612
Total current liabilities	39,848	48,076
Deferred revenue, net of current portion	44,179	53,303
Other long-term liabilities	12,082	27
Total liabilities	96,109	101,406
Stockholders' equity:		
Preferred stock, $0.001 par value per share, 10,000,000 shares authorized at September 30, 2019 and December 31, 2018, respectively		
Series A Convertible, 2,907 shares issued and outstanding at September 30, 2019 and December 31, 2018, respectively	—	—
Series B Convertible, 5,000 shares issued and outstanding at September 30, 2019. No shares issued and outstanding at December 31, 2018.	—	—
Common stock, $0.001 par value per share, 300,000,000 shares authorized and 49,392,706 and 54,151,219 shares issued and outstanding at September 30, 2019 and December 31, 2018, respectively	49	54
Additional paid-in capital	194,695	189,929
Accumulated other comprehensive loss	(697)	(2,982)
Accumulated deficit	(173,405)	(147,066)
Total stockholders' equity	20,642	39,935
Total liabilities and stockholders' equity	$ 116,751	$ 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 September 30		Nine Months Ended September 30	
	2019	2018	2019	2018
Revenue	$ 15,132	$ 8,345	$ 29,009	$ 24,187
Operating expenses				
Research and development	13,211	11,401	40,880	28,492
General and administrative	4,835	4,748	13,956	13,878
Total operating expenses	18,046	16,149	54,836	42,370
Loss from operations	(2,914)	(7,804)	(25,827)	(18,183)
Interest income	377	504	1,332	1,491
Other income (expense), net	(55)	1,147	(203)	1,472
Loss before income taxes	(2,592)	(6,153)	(24,698)	(15,220)
Income tax benefit	—	—	—	(148)
Net loss	$ (2,592)	$ (6,153)	$ (24,698)	$ (15,072)
Other comprehensive income (loss):				
Foreign currency translation	1,636	27	1,908	546
Unrealized (loss) gain on available-for-sale securities	374	(506)	377	1,096
Comprehensive (loss) income	$ (582)	$ (6,632)	$ (22,413)	$ (13,430)
Net loss per share				
Basic and diluted	$ (0.05)	$ (0.11)	$ (0.50)	$ (0.29)
Weighted average number of common shares outstanding				
Basic and diluted	49,353	54,089	49,805	52,721

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

PIERIS PHARMACEUTICALS, INC.

CONDENSED CONSOLIDATED STATEMENTS OF CHANGES IN STOCKHOLDERS' EQUITY

(unaudited)

(in thousands)

For the Three Months Ended September 30

	Series A convertible preferred shares		Series B convertible preferred shares		Common shares		Additional paid-in capital	Accumulated other comprehensive loss	Accumulated deficit	Total Stockholders' equity
	No. of shares	Share capital	No. of shares	Share capital	No. of shares	Share capital				
Balance as of June 30, 2018	2,907	$ —	—	—	54,008	$ 54	$ 187,066	$ (2,574)	$ (129,231)	$ 55,315
Net loss	—	—	—	—	—	—	—	—	(6,153)	(6,153)
Foreign currency translation adjustment	—	—	—	—	—	—	—	27	—	27
Unrealized gains/(losses) on investments	—	—	—	—	—	—	—	(506)	—	(506)
Stock based compensation expense	—	—	—	—	—	—	1,302	—	—	1,302
Issuance of common stock resulting from exercise of stock options	—	—	—	—	76	—	144	—	—	144
Issuance of common stock resulting from exercise of warrants	—	—	—	—	66	—	132	—	—	132
Balance as of September 30, 2018	2,907	$ —	—	$ —	54,150	$ 54	$ 188,644	$ (3,053)	$ (135,384)	$ 50,261
Balance as of June 30, 2019	2,907	$ —	5,000	—	49,262	$ 49	$ 192,956	$ (2,707)	$ (170,813)	$ 19,485
Net loss	—	—	—	—	—	—	—	—	(2,592)	(2,592)
Foreign currency translation adjustment	—	—	—	—	—	—	—	1,636	—	1,636
Unrealized gains/(losses) on investments	—	—	—	—	—	—	—	374	—	374
Stock based compensation expense	—	—	—	—	—	—	1,518	—	—	1,518
Issuance of common stock resulting from exercise of stock options	—	—	—	—	61	—	121	—	—	121
Issuance of common stock resulting from exercise of warrants	—	—	—	—	70	—	100	—	—	100
Balance as of September 30, 2019	2,907	$ —	5,000	$ —	49,393	$ 49	$ 194,695	$ (697)	$ (173,405)	$ 20,642

CONDENSED CONSOLIDATED STATEMENTS OF CHANGES IN STOCKHOLDERS' EQUITY

(unaudited)

(in thousands)

For the Nine Months Ended September 30

	Series A convertible preferred shares		Series B convertible preferred shares		Common shares		Additional paid-in capital	Accumulated other comprehensive loss	Accumulated deficit	Total stockholders' equity
	No. of shares	Share capital	No. of shares	Share capital	No. of shares	Share capital				
Balance as of December 31, 2017	4,963	$ —	—	—	45,017	$ 45	$ 136,484	$ (4,695)	$ (120,312)	$ 11,522
Net loss	—	—	—	—	—	—	—	—	(15,072)	(15,072)
Foreign currency translation adjustment	—	—	—	—	—	—	—	546	—	546
Unrealized gains/(losses) on investments	—	—	—	—	—	—	—	1,096	—	1,096
Stock based compensation expense	—	—	—	—	—	—	3,666	—	—	3,666
Issuance of common stock resulting from exercise of stock options	—	—	—	—	595	1	982	—	—	983
Issuance of common stock resulting from exercise of warrants	—	—	—	—	157	—	313	—	—	313
Issuance of common stock net $3,374 in offering costs	—	—	—	—	6,325	6	47,201	—	—	47,207
Preferred stock conversion	(2,056)	—	—	—	2,056	2	(2)	—	—	—
Balance as of September 30, 2018	2,907	$ —	—	$ —	54,150	$ 54	$ 188,644	$ (3,053)	$ (135,384)	$ 50,261
Balance as of December 31, 2018	2,907	$ —	—	—	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	—	—	—	—	—	—	—	—	(24,698)	(24,698)
Foreign currency translation adjustment	—	—	—	—	—	—	—	1,908	—	1,908
Unrealized gains/(losses) on investments, net of $0.1 million of tax	—	—	—	—	—	—	—	377	—	377
Stock based compensation expense	—	—	—	—	—	—	4,260	—	—	4,260
Issuance of common stock resulting from exercise of stock options	—	—	—	—	111	—	218	—	—	218
Issuance of common stock from employee stock purchase plan	—	—	—	—	58	—	178	—	—	178
Issuance of common stock resulting from exercise of warrants	—	—	—	—	73	—	105	—	—	105
Preferred stock conversion	—	—	5,000	—	(5,000)	(5)	5	—	—	—
Balance as of September 30, 2019	2,907	$ —	5,000	$ —	49,393	$ 49	$ 194,695	$ (697)	$ (173,405)	$ 20,642

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

PIERIS PHARMACEUTICALS, INC.

CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS

(unaudited, in thousands)

	Nine Months Ended September 30	
	2019	**2018**
Operating activities:		
Net loss	$ (24,698)	$ (15,072)
Adjustments to reconcile net loss to net cash provided by operating activities:		
Depreciation	367	405
Stock-based compensation	4,260	3,665
Deferred rent expense	853	—
Other	90	(376)
Changes in operating assets and liabilities	(19,365)	19,370
Net cash (used in) provided by operating activities	(38,493)	7,992
Investing activities:		
Purchases of property and equipment	(1,286)	(1,133)
Proceeds from maturity of investments	61,767	64,490
Purchases of investments	(48,762)	(67,015)
Net cash provided by (used in) investing activities	11,719	(3,658)
Financing activities:		
Proceeds from exercise of stock options	218	983
Proceeds from exercise of warrants	105	314
Proceeds from employee stock purchase plan	178	—
Issuance of common stock, net of issuance costs	—	47,207
Net cash provided by financing activities	501	48,504
Effect of exchange rate change on cash and cash equivalents	(2,526)	(1,234)
Net (decrease) increase in cash and cash equivalents	(28,799)	51,604
Cash and cash equivalents at beginning of period	74,867	37,878
Cash and cash equivalents at end of period	$ 46,068	$ 89,482
Supplemental cash flow disclosures:		
Cash paid for income taxes	$ —	$ 902
Net unrealized gain on investments	$ 469	$ 1,096
Property and equipment included in accounts payable	$ 198	$ 222

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 inhaled IL-4Rα antagonist Anticalin protein to treat uncontrolled asthma, an immuno-oncology, or IO, bispecific targeting HER2 and 4-1BB, 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 September 30, 2019, the Company had cash, cash equivalents and investments of $86.2 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 nine months ended September 30, 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 adjustments, and disclosures considered necessary for a fair presentation of interim period results have been included. Interim results for the three and nine months ended September 30, 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 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. Realized gains of $0.1 million and $0.2 million were recognized for the three and nine months ended September 30, 2019. Realized gains of approximately $0.8 million and realized losses $0.7 million were recognized for the three and nine months ended September 30, 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 September 30, 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 arrangements 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 and statement of operations, as of September 30, 2019 and for the three and nine months ended September 30, 2019, to the pro-forma amounts had the previous guidance been in effect:

	September 30, 2019		
	As Reported, ASC 606	Adjustments	Adjusted Balance, ASC 605
Condensed Consolidated Balance Sheet Data (in thousands):			
Prepaids and other current assets	$ 4,778	$ (646)	$ 4,132
Other non-current assets	7,770	(808)	6,962
Total Assets	$ 116,751	$ (1,454)	$ 115,297
Deferred revenues, current portion	27,242	9,774	37,016
Deferred revenue, net of current portion	44,179	(10,384)	33,795
Total Liabilities	96,109	(610)	95,499
Accumulated Deficit	(173,405)	(844)	(174,249)
Total stockholders' equity	20,642	(844)	19,798
Total liabilities and stockholders' equity	$ 116,751	$ (1,454)	$ 115,297

	Three Months Ended September 30, 2019			Nine Months Ended September 30, 2019		
	As Reported, ASC 606	Adjustments	Adjusted Balance, ASC 605	As Reported, ASC 606	Adjustments	Adjusted Balance, ASC 605
Condensed Consolidated Statement of Operations Data (in thousands):						
Revenue	$ 15,132	$ (2,195)	$ 12,937	$ 29,009	$ (2,717)	$ 26,292
General and administrative expenses	4,835	(191)	4,644	13,956	(303)	13,653
Loss from operations	(2,914)	(2,386)	(5,300)	(25,827)	(3,020)	(28,847)
Loss before income taxes	(2,592)	(2,386)	(4,978)	(24,698)	(3,020)	(27,718)
Net loss	$ (2,592)	$ (2,386)	$ (4,978)	$ (24,698)	$ (3,020)	$ (27,718)
Comprehensive loss	$ (582)	$ (2,386)	$ (2,968)	$ (22,413)	$ (3,020)	$ (25,433)

The application of ASC 606 did not have an impact on the Company’s net cash used in operating activities for the nine months ended September 30, 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.

Operating Leases

The Company leases its office and laboratory facilities and certain lease agreements contain free or escalating rent payment provisions. The Company recognizes rent expense under such leases on a straight-line basis over the term of the lease with the difference between the expense and the payments recorded as deferred rent on the consolidated balance sheets. Lease renewal periods are considered on a lease-by-lease basis in determining the lease term. Funding of leasehold improvements by the Company’s landlord are accounted for as a tenant improvement allowance and are amortized as a reduction of rent expense over the term of the lease. Leasehold improvements are amortized on a straight-line basis over the shorter of the useful life or the remaining lease term.

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 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 and nine months ended September 30, 2019 and 2018, respectively, the Company recognized revenues as follows (in thousands):

	Three Months Ended September 30		Nine Months Ended September 30	
	2019	2018	2019	2018
Revenue from contracts with customers	$ 14,498	$ 7,873	$ 26,966	$ 22,541
Collaboration revenue (ASC 808)	634	472	2,043	1,555
Other revenues	—	—	—	91
Total Revenue	$ 15,132	$ 8,345	$ 29,009	$ 24,187

Included in the revenue from contracts with customers for the three and nine months ended September 30, 2019 was $11.0 million and $17.4 million, respectively, that was included in the aggregated deferred liability balances at December 31, 2018.

During the three and nine months ended September 30, 2019 and 2018, respectively, the Company recognized revenue from the following strategic partnerships and other license agreements (in thousands):

	Three Months Ended September 30		Nine Months Ended September 30	
	2019	2018	2019	2018
Seattle Genetics	$ 576	$ 1,788	$ 2,005	$ 4,519
AstraZeneca	2,903	5,905	12,811	14,841
Servier	11,653	652	14,193	3,279
Other	—	—	—	1,548
Total Revenue	$ 15,132	$ 8,345	$ 29,009	$ 24,187

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	778	688
Total potential milestone payments	$ 2,658	$ 2,098

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' 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' 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 such goods and services 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 September 30, 2019, there was $24.7 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 September 30, 2019, there is $7.3 million and $13.2 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 phase 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 such goods and services
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 were 16 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 was 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 was 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 September 30, 2019, there was $36.4 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 September 30, 2019, there is $11.6 million and $17.3 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 September 30, 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 September 30, 2019 was immaterial and during the nine months ended September 30, 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 agreed to initially pursue five bispecific therapeutic programs.

Five committed programs were initially defined, which may combine antibodies from the Servier portfolio with one 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 PRS-332, the initial lead program under the collaboration, or the Initial Lead, as well as up to three additional programs, 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 as further discussed below.

The 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 the Initial Lead, (ii) commercial license for the Initial Lead, (iii) individual research licenses for each of the four Collaboration Products, and (iv) individual non-exclusive platform technology licenses for the Initial Lead and for each of the four 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 the Initial Lead and the 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 are 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 the Collaboration Products.

For the Initial Lead 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 its 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 the Initial Lead and Collaboration Products, shall continue for three years from the effective date of the Servier agreements 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 under 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, a development license, a commercial license and research and development services for the Initial Lead, (ii) participation on each of the committees, (iii) four research licenses for Collaboration Products, and (iv) 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 goods and services were separate performance obligations. The Company determined that the licenses granted, at the inception of the Servier collaboration, should be combined with the research and development services to be provided for the Initial Lead and Collaboration Products, over the term of the Servier Agreements, as such 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 that there are 14 performance obligations at the 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 the Initial Lead, (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-Development 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-Development 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 the Initial Lead 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 the Initial Lead and each of the Co-Development 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-Development 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 September 30, 2019, there was $19.2 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 Initial Lead 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.

In September 2019, Servier notified the Company of its decision to discontinue co-development of PRS-332, a PD-1-LAG-3 bispecific that served as the initial development program under the Pieris-Servier alliance, for strategic reasons. The Company does not presently intend to continue development of PRS-332 but retains full rights to advance the development and commercialization of the product on a world-wide basis in the future. Servier's termination of the co-development of the PRS-332 program does not impact the remainder of the Pieris-Servier alliance and the parties continue to advance PRS-344 through IND-enabling activities. The Pieris-Servier alliance includes three additional programs beyond PRS-344, all of which are in active preclinical development.

As of September 30, 2019, there is $5.5 million and $13.7 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 September 30, 2019, the remaining balance of the asset recognized

from costs to obtain the Servier contract is $0.3 million. Amortization during the three and nine months ended September 30, 2019 was $0.2 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 (i) a non-exclusive license to certain intellectual property rights associated with the Company's Anticalin platform and (ii) 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 September 30, 2019, there is $2.8 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 September 30, 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 accounts receivable when the Company's right is unconditional.

There were no additions to deferred revenue during the three and nine months ended September 30, 2019 and reductions to deferred revenue were $11.0 million and $17.4 million for the three and nine months ended September 30, 2019, respectively.

4. Cash, cash equivalents and investments

As of September 30, 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)
September 30, 2019				
Money market funds, included in cash equivalents	$ 14,525	$ 14,525	$ —	$ —
Investments - U.S. treasuries	3,699	3,699	—	—
Investments - Asset-backed securities	8,444	—	8,444	—
Investments - Corporate bonds	28,032	—	28,032	—
Total	$ 54,700	$ 18,224	$ 36,476	$ —
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 September 30, 2019.

Investments at September 30, 2019 consist of the following (in thousands):

	Contractual maturity (in days)	Amortized Cost	Unrealized gains	Unrealized losses	Fair Value
Investments					
U.S. treasuries	138-167	$ 3,631	$ 68	$ —	$ 3,699
Asset-backed securities	46-198	8,374	70	—	8,444
Corporate bonds	7-270	27,842	190	—	28,032
Total		$ 39,847	$ 328	$ —	$ 40,175

The Company recorded realized gains of $0.1 million and $0.2 million from the maturity of available-for-sale securities during the three and nine months ended September 30, 2019, respectively. The Company recorded $0.8 million and $0.7 million of realized gains during the three and nine months ended September 30, 2018, respectively.

5. Property and equipment, net

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

	September 30 2019	December 31, 2018
Laboratory equipment/furniture	$ 8,062	$ 7,431
Office and computer equipment	702	661
Leasehold improvements	5,633	323
Property and equipment, at cost	14,397	8,415
Accumulated depreciation	(3,389)	(3,366)
Property and equipment, net	$ 11,008	$ 5,049

6. Accrued Expenses

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

	September 30 2019	December 31, 2018
Accrued license obligations	$ 60	$ 2,523
Compensation expense	2,430	2,380
Professional fees	1,815	1,945
Research and development fees	1,405	943
Audit and tax fees	424	378
Other current liabilities	1,036	945
Total	$ 7,170	$ 9,114

7. Stockholders´ Equity

The Company had 49,392,706 shares of common stock and 7,907 shares of preferred stock outstanding as of September 30, 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.

2019 Employee, Director and Consultant Equity Incentive Plan

At the Annual Shareholder Meeting, held on July 31, 2019, the shareholders approved the 2019 Employee, Director and Consultant Equity Incentive Plan, or the 2019 Plan. The 2019 Plan permits the Company to issue up to 2,750,000 shares of common stock pursuant to awards granted under the 2019 Plan. Upon approval of the 2019 Plan, the 2018 Employee, Director and Consultant Equity Incentive Plan, or the 2018 Plan, was terminated; all unissued options will be cancelled and no additional awards will be made thereunder. All outstanding awards under the 2018 Plan will remain in effect and any awards forfeited from the outstanding awards will be recycled into the 2019 Plan. There were approximately 931,896 shares remaining and available for grant under the 2018 Plan that terminated with the 2018 Plan.

Open Market Sale Agreement

On August 9, 2019, the Company entered into an Open Market Sale Agreement[SM], or the "Sale Agreement" with Jefferies LLC, or "Jefferies", pursuant to which the Company may offer and sell shares of its common stock, par value $0.001 per share, having aggregate gross sales proceeds of $50.0 million, or the Shares, from time to time, through an "at the market offering" program under our shelf registration statement on Form S-3 (File No. 333-226725). To date, the Company has not sold any Shares under the Sales Agreement.

2019 Private Placement

In November 2019, the Company entered into a securities purchase agreement for a private placement (the "Purchase Agreement") with a select group of institutional investors, including lead investor BVF Inc. and its affiliates ("BVF") as well as existing and new investors (the "Investors"). At the time of entering into the Purchase Agreement, BVF was a more than 5% stockholder of the Company, holding shares of common stock, Series A Preferred Stock, Series B Preferred Stock and warrants to purchase shares of common stock.

The private placement consisted of 9,014,960 units, at a price of $3.55 per unit (the "Financing"), for gross proceeds of approximately $32.0 million, and net proceeds to the Company of approximately $31.1 million. Each unit consists of (i) one share of the Company's common stock (the "Common Shares") or 0.001 shares of non-voting Series C convertible preferred stock (the "Series C Preferred Shares," and together with the Common Shares, the "Shares"), and (ii) one immediately-exercisable warrant to purchase one share of the Company's common stock with an exercise price of $7.10 (the "Exercise Price").

If (i) the initial public disclosure of the Phase 2a Study of PRS-060/AZD1402 that includes the "p" value achieved for the primary endpoint of such study reveals top-line data on the primary efficacy endpoint in the Phase 2a Study with a "p" value below 0.05 (i.e., $p < 0.05$) in at least one dose level; and (ii) the 10-day volume weighted average stock price commencing on the trading day immediately after the initial data disclosure is at least three percent more than the Exercise Price, then the warrants will be exercisable for a period of 60 days from the date of the initial data disclosure and may only be exercised for cash. Otherwise, the warrants will be exercisable for a period of five years from the date of issuance.

Each Preferred Share is convertible into 1,000 shares of the Company's common stock. The Company will not undertake any conversion of the Series C Preferred Shares, and a stockholder shall not have the right to convert any portion of the Series C Preferred Shares, to the extent that, after giving effect to the conversion such stockholder would beneficially own in excess of 9.99% of the number of shares of the Company's common stock outstanding immediately after giving effect to such conversion. The Series C Preferred Shares have no voting rights, except as required by law and except that the consent of holders of a majority of the then outstanding Series C Preferred Stock is required to amend the terms of the Series C Certificate of Designation. The Series C Preferred Shares are entitled to receive dividends on a *pari passu* basis with the Company's common stock, when, and if declared. In any liquidation or dissolution of the Company, the Series C Preferred Shares rank senior to the Company's common stock in the distribution of assets, to the extent legally available for distribution.

The Company also entered into a registration rights agreement (the "Registration Rights Agreement") with the Investors in November 2019 in connection with the Financing requiring the Company to register the resale of the Shares and the Company's common stock underlying the Series C Preferred Shares and warrants. The Company is required to prepare and file a registration statement with the Securities and Exchange Commission within 30 days of the closing, and to use commercially

reasonable efforts to have the registration statement declared effective within 90 days if there is no review by the Securities and Exchange Commission, and within 120 days in the event of such review.

The Shares and the warrants were offered and will be issued and sold in reliance upon the exemption from the registration requirements of the Securities Act of 1933, as amended (the "Securities Act"), set forth under Section 4(a)(2) of the Securities Act relating to sales by an issuer not involving any public offering and in reliance on similar exemptions under applicable state laws.

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 September 30, 2019 and 2018, and as calculated using the treasury stock method, approximately 21.7 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. This liability was paid in full during the quarter ended September 30, 2019. These discussions may also lead to an increase in the Company's collaborative research activities with TUM.

10. Leases

In October 2018, Pieris GmbH entered into a new lease for office and laboratory space located in Hallbergmoos, Germany. Under the Lease Agreement, Pieris GmbH will rent approximately 105,000 square feet, of which approximately 96,400 square feet is expected to be delivered by the lessor in the fourth quarter of 2019 and approximately 8,600 square feet is expected to be delivered by the lessor by May 2020. An additional approximately 22,300 square feet is expected to be delivered by the lessor by October 2024. Pieris GmbH has a first right of refusal to lease an additional approximate 13,400 square feet. Pieris GmbH intends to move its operations currently conducted in Freising, Germany to the new leased property.

The Lease Agreement provides for an initial term of 12.5 years, commencing on the date the lessor first delivers the leased property to Pieris GmbH as agreed under the lease agreement. Pieris GmbH also has an option to extend the term of the Lease Agreement for two additional 60 months periods. Pieris GmbH may sublease space within the leased property with lessor's consent, which may not be unreasonably withheld.

Monthly base rent for the initial 105,000 square feet of the leased property, including parking spaces, will total approximately $0.2 million per month, which amount shall be adjusted starting on the second anniversary of the commencement date by an amount equal to the German consumer price index. In addition to the base rent, Pieris GmbH is also responsible for certain administrative and operational costs in accordance with the terms of the Lease Agreement. Pieris GmbH provided a security deposit of $0.8 million as of December 31, 2018. The Company will serve as a guarantor for the Lease Agreement.

The Hallbergmoos lease included $11.2 million of tenant improvements allowance for normal tenant improvements, for which construction began in March 2019. The date of the construction coincided with the lease commencement date for accounting purposes under FASB ASC 840, *Leases*. The Company recorded straight-line rent expense of $0.8 million during the nine months ended September 30, 2019 and a deferred rent liability of $12.1 million, inclusive of a tenant improvement allowance of $11.2 million which the Company is amortizing as a reduction of rent expense over the lease term. As of September 30, 2019, the entire deferred rent liability was classified as non-current deferred rent on the consolidated balance sheet.

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. 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 and an immuno-oncology (IO) bispecific targeting HER2 and 4-1BB. 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 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 PRS-060/AZD1402 in the United States.

- We are developing additional respiratory drug candidates beyond PRS-060/AZD1402, within and outside of the AstraZeneca alliance. The AstraZeneca alliance includes four programs beyond PRS-060/AZD1402, the targets and disease areas for which are undisclosed. We retain co-development and co-commercialization rights to two out of those four programs and initiated an additional discovery-stage respiratory program in our alliance with AstraZeneca in the prior quarter, bringing the total number of active programs to four; AstraZeneca may initiate one additional program within the alliance. We also initiated an additional proprietary respiratory discovery-stage program and continue to advance the two proprietary discovery-stage programs initiated in 2018.

- *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, comprising 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/AZD1402 was tested in a nebulized formulation in 54 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 the volunteers in that study. Data from the PRS-060/AZD1402 phase 1 SAD study was presented at the American Thoracic Society International Conference in May 2019 showing that (i) PRS-060/AZD1402 was well tolerated when given as a single inhaled or intravenous doses to healthy volunteers; (ii) there was systemic target engagement (as measured by pSTAT6 inhibition); and (iii) the overall profile of PRS-060/AZD1402 in the phase 1 SAD study supports its further development as an inhaled drug for the treatment of asthma. We presented interim data from the PRS-060/AZD1402 phase 1 MAD study at the 2019 European Respiratory Society International Congress in October 2019 and reported that PRS-060/AZD1402 was safe and well-tolerated at all doses, led to a statistically significant reduction in FeNO, a validated biomarker for eosinophilic airway inflammation, and showed dose-dependent systemic target engagement in patients with mild asthma and elevated levels of FeNO (≥ 35ppb). During the treatment period, 30 patients were randomized to receive delivered doses of PRS-060/AZD1402 ranging from 2 mg to 60 mg (5 mg to 150 mg administered through a nebulizer (nominal dose)) twice a day for nine consecutive days and one final dose on the 10th day, and 12 patients were randomized to receive placebo at the same intervals. Statistically significant and pronounced inhibition of FeNO relative to placebo was observed at all doses. When comparing the 20mg PRS-060/AZD1402 powered cohort (n=12) to placebo, the primary statistical analysis using the emax model demonstrated a 36% relative reduction in FeNO (p-value <0.0001). Systemic target engagement was dose-dependent and closely aligned with systemic exposure of the drug, consistent with results of the phase 1 SAD study. No systemic target engagement and minimal systemic exposure was observed at the 2mg dose, suggesting that local target engagement by the drug may be sufficient to reduce airway inflammation, as evidenced by FeNO reduction at that 2mg dose level. Following these reported results, AstraZeneca and Pieris are preparing to move into a phase 2a study in moderate-to-severe asthmatics in 2020.

- We presented interim data from the study at a late-breaking presentation at the Society for Immunotherapy of Cancer (SITC) annual meeting on November 9, 2019. We reported that PRS-343 was well tolerated and had a favorable safety profile at all doses and schedules tested, demonstrated anti-tumor activity in a heavily pre-treated patient population across multiple tumor types and showed a potent increase in CD8+ T cell numbers in the tumor microenvironment of responders, indicative of 4-1BB agonism on T cells. Pieris continues to enroll patients in that study at higher dose cohorts and plans to initiate an expansion trial of the drug candidate next year. We also continue to enroll the dose-escalation phase 1 study of PRS-343 in combination with atezolizumab and intend to report initial data from the study at our R&D day on November 19, 2019 in New York.

- For our other IO drug candidates and programs, we are conducting activities relating to candidate identification, optimization and preclinical evaluation. We 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 first half of 2020. We also executed our option to opt-into co-development and United States commercialization of PRS-344 during the first quarter of 2019. In September 2019, Servier notified us of its decision to discontinue co-development of PRS-332, a PD-1-LAG-3 bispecific that served as the initial development program under the Pieris-Servier alliance, for strategic reasons. We do not presently intend to continue development of PRS-332 but retain full rights to advance the development and commercialization of the product on a world-wide basis. Servier's termination of the co-development of the PRS-332 program does not impact the remainder of the Pieris-Servier alliance and the parties continue to advance PRS-344 through IND-enabling activities. The Pieris-Servier alliance includes three additional programs beyond PRS-344, all of which are in active preclinical development.

- We completed dosing for the phase 2a study of PRS-080 in anemic, hemodialysis-dependent CKD patients in 2018 and data from that study was presented at the 24th European Hematology Association Congress in June 2019 showing that: (i) PRS-080 was safe and well tolerated at both 4 mg/kg and 8 mg/kg treatment dose levels; (ii) no treatment-related adverse events (AEs) or serious adverse events (SAEs) were observed in the study; (iii) PRS-080 therapy yielded robust iron mobilization with increases in both serum iron and TSAT; (iv) peak iron concentrations were higher in the 8 mg/kg treatment group; and (v) while there was no clear difference in hemoglobin (Hb) values between placebo and PRS-080 in 4 mg/kg treatment group over the course of treatment, preliminary evidence of Hb response with separation of Hb values between placebo and PRS-080 was shown in the 8 mg/kg treatment group during the treatment period. We plan to share final data from the phase 2a study with ASKA in the fourth quarter of 2019, 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 and nine months ended September 30, 2019, we reported a net loss of $2.6 million and $24.7 million, respectively. For the three and nine months ended September 30, 2018, we reported a net loss of $6.2 million and $15.1 million, respectively. As of September 30, 2019, we had an accumulated deficit of $173.4 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 and nine months ended September 30, 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 and nine months ended September 30, 2019 and 2018

The following table sets forth our revenues and operating expenses for the three and nine months ended September 30, 2019 and 2018 (in thousands):

	Three Months Ended September 30		Nine Months Ended September 30	
	2019	2018	2019	2018
Revenues	$ 15,132	$ 8,345	$ 29,009	$ 24,187
Research and development expenses	13,211	11,401	40,880	28,492
General and administrative expenses	4,835	4,748	13,956	13,878
Total operating expenses	18,046	16,149	54,836	42,370
Interest income	377	504	1,332	1,491
Other income (expense), net	(55)	1,147	(203)	1,472
Loss before income taxes	(2,592)	(6,153)	(24,698)	(15,220)
Provision for income tax	—	—	—	(148)
Net loss	$ (2,592)	$ (6,153)	$ (24,698)	$ (15,072)

Revenues

The following table provides a comparison of revenues for the three months ended September 30, 2019 and 2018 (in thousands):

	Three Months Ended September 30		
	2019	2018	Increase/(Decrease)
Revenue from contracts with customers	$ 14,498	$ 7,873	$ 6,625
Collaboration revenue (ASC 808)	634	472	162
Total Revenue	$ 15,132	$ 8,345	$ 6,787

- The $6.6 million increase in revenue from contracts with customers in the three months ended September 30, 2019 compared to the three months ended September 30, 2018 relates to higher amounts of Servier revenue recorded upon the termination of the co-development of PRS-332 by Servier for strategic reasons. This increase was partially offset by lower levels of activities with respect to our collaboration agreements with both Seattle Genetics and AstraZeneca .

The following table provides a comparison of revenues for the nine months ended September 30, 2019 and 2018 (in thousands):

	Nine Months Ended September 30		
	2019	2018	Increase/(Decrease)
Revenue from contract with customers	$ 26,966	$ 22,541	$ 4,425
Collaboration revenue (ASC 808)	2,043	1,555	488
Other	—	91	(91)
Total Revenue	$ 29,009	$ 24,187	$ 4,822

- The $4.4 million increase in revenues from license fees in the nine months ended September 30, 2019 compared to the nine months ended September 30, 2018 primarily relates to higher amounts of Servier revenue recorded upon termination of the co-development of PRS-332 by Servier for strategic reasons partially offset by lower activity levels with respect to our collaboration agreement with Seattle Genetics and AstraZeneca.

- The $0.5 million increase in collaboration revenues in the nine months ended September 30, 2019 compared to the nine months ended September 30, 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 September 30, 2019 and 2018 (in thousands):

	Three Months Ended September 30		
	2019	2018	Increase/(Decrease)
Respiratory	$ 3,241	$ 2,371	$ 870
Immuno-oncology	4,102	4,225	(123)
Anemia	80	288	(208)
Other R&D activities	5,788	4,517	1,271
Total	$ 13,211	$ 11,401	$ 1,810

- The $0.9 million increase for our respiratory programs period-over-period is due primarily to our ongoing GMP activities for phase 2a readiness for PRS-060. We also incurred higher pre-clinical and lab supply expenses as we continue investing in our other proprietary and partnered programs in 2019 compared to 2018;

- The $0.1 million decrease in our immuno-oncology program spending period-over-period is due primarily to a slightly lower spending on our preclinical IO programs on a period-over-period basis;

- The $0.2 million decrease for our anemia program, PRS-080, period-over-period is mainly due to lower clinical costs as the phase 2a study was largely completed earlier in 2019; and

- The $1.3 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 allocated facility costs due to higher non-cash rent charges for the new Hallbergmoos facility that is being prepared for occupancy.

The following table provides a comparison of the research and development expenses for the nine months ended September 30, 2019 and 2018 (in thousands):

	Nine Months Ended September 30		
	2019	2018	Increase/(Decrease)
Respiratory	$ 9,168	$ 5,672	$ 3,496
Immuno-oncology	13,950	8,789	5,161
Anemia	302	1,592	(1,290)
Other R&D activities	17,460	12,439	5,021
Total	$ 40,880	$ 28,492	$ 12,388

- The $3.5 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 offset by slightly lower clinical costs as the phase 1 SAD study was completed earlier in 2019. We also incurred higher pre-clinical and lab supply expenses as we initiated and were working on more proprietary and partnered respiratory programs in 2019 compared to 2018;

- The $5.2 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-343, PRS-344 and other proprietary programs;

- The $1.3 million decrease for our anemia program, PRS-080, period-over-period is mainly due to lower clinical costs as the phase 2a study wound down in 2019 compared to the same period in 2018; and

- The $5.0 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, an increase in recruiting costs, and an increase in allocated facility costs due to higher non-cash rent charges for the new Hallbergmoos facility that is being prepared for occupancy.

General and Administrative Expenses

General and administrative expenses of $4.8 million for the three months ended September 30, 2019 were generally consistent to $4.7 million for the three months ended September 30, 2018 across all expense categories.

General and administrative expenses were $14.0 million for the nine months ended September 30, 2019 and $13.9 million for the nine months ended September 30, 2018. The period over period fluctuation is due to decreases in legal, professional and recruiting costs, offset completely by increase in audit and tax, stock compensation and costs related to the new Hallbergmoos facility, including non-cash deferred rent charges.

Non-operating income (expense), net

Our non-operating income was $0.3 million for the three months ended September 30, 2019 as compared to $1.7 million for the three months ended September 30, 2018. This decrease is due to lower interest income as a result of lower invested amounts and a strengthening of the U.S. dollar against the euro, including the impact on foreign currency remeasurement of monetary assets, primarily U.S. dollar cash and investment balances in Germany.

Our non-operating income was $1.1 million for the nine months ended September 30, 2019 as compared to $3.0 million for the nine months ended September 30, 2018. This decrease is due mostly to a higher foreign currency remeasurement gain due to a larger receivable balance in prior year.

Liquidity and Capital Resources

Through September 30, 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 September 30, 2019, we had a total of $86.2 million in cash, cash equivalents and investments. We have incurred losses in every period since inception including the three months ended September 30, 2019 and 2018, respectively, and have a total accumulated deficit of $173.4 million as of September 30, 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 nine months ended September 30, 2019 and 2018 respectively (in thousands):

	Nine Months Ended September 30	
	2019	**2018**
Net cash (used in) provided by operating activities	(38,493)	7,992
Net cash provided by (used in) investing activities	11,719	(3,658)
Net cash provided by financing activities	501	48,504

There was a $46.5 million change in net cash from operating activities, as the net cash used in operating activities was $38.5 million for the nine months ended September 30, 2019 compared to net cash provided by operating activities of $8.0 million for the nine months ended September 30, 2018. The change is primarily driven by lower accounts receivable and lower deferred revenue mainly driven by the recognition of remaining revenue related to PRS-332, offset slightly by other working capital changes during the nine months ended September 30, 2019. Additionally, there was a $9.6 million increase in the net loss in 2019 compared to 2018.

The change in net cash provided by investing activities for the nine months ended September 30, 2019 compared to net cash used in the same period in 2018 is mainly attributable to more investment purchases than investment maturities in the current year compared to 2018.

Financing activities for the nine months ended September 30, 2019 were $0.5 million due to exercises of options and warrants and proceeds from the employee stock purchase plan. This is compared to $47.2 million in proceeds due to the issuance of common stock under our 2018 Offering along with $1.3 million of proceeds from the exercise of warrants and stock options for the nine months ended September 30, 2018.

On August 9, 2019, we entered into an Open Market Sale Agreement, or the Sale Agreement with Jefferies LLC, or Jefferies, pursuant to which we may offer and sell shares of our common stock, par value $0.001 per share, having aggregate gross sales proceeds of $50.0 million, or the Shares, from time to time, through an “at the market offering” program under our shelf registration statement on Form S-3 (File No. 333-226725). To date, we have not sold any Shares under the Sales Agreement.

In November 2019, we entered into a securities purchase agreement for a private placement with a select group of institutional investors. William Blair & Company, L.L.C. acted as sole placement agent in connection with the private placement. The private placement, referred to as the PIPE, consisted of 9,014,960 units, at a price of $3.55 per unit, for gross proceeds of approximately $32.0 million, and net proceeds to the Company of approximately $31.1 million, after deducting placement agent fees and estimated offering expenses payable by the Company. Each unit consists of (i) one share of the Company’s common stock or 0.001 shares of non-voting Series C convertible preferred stock, and (ii) one immediately-exercisable warrant to purchase one share of the Company’s common stock with an exercise price of $7.10.

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 nine months ended September 30, 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 on Form 10-K for the fiscal year ended on December 31, 2018. 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 September 30, 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 September 30, 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 C Convertible Preferred Stock.	*			
3.2	Amended and Restated Bylaws of the Registrant, as amended.	*			
4.1	Form of Warrant to purchase Common Stock.		Form 8-K (Exhibit 10.2)	November 4, 2019	001-37471
10.1	Open Market Sale Agreement, dated as of August 9, 2019, by and between Pieris Pharmaceuticals, Inc. and Jefferies LLC.		Form 10-Q (Exhibit 10.1)	August 9, 2018	001-37471
10.2	Managing Director Services Agreement by and between Pieris Pharmaceuticals GmbH and Hitto Kaufmann, PhD., dated February 20, 2019.	*			
10.3	Non-Qualified Stock Option Agreement by and between the Registrant and Hitto Kaufmann, Ph.D., dated as of August 30, 2019.	*			
10.4	Securities Purchase Agreement, dated November 2, 2019, by and among the Company and the Investors named therein.		Form 8-K (Exhibit 10.1)	November 4, 2019	001-37471

Exhibit Number	Exhibit Description		Incorporated by Reference herein from Form or Schedule	Filing Date	SEC File / Registration Number
10.5	Registration Rights Agreement, dated November 2, 2019, by and among the Company and the Investors named therein.		Form 8-K (Exhibit 10.3)	November 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.	*			
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.

November 12, 2019 By: /s/ Stephen S. Yoder

Stephen S. Yoder

Chief Executive Officer and President

(Principal Executive Officer)

November 12, 2019 By: /s/ Thomas Bures

Thomas Bures

Vice President, Finance and Treasurer

(Principal Financial Officer and Principal Accounting Officer)

Exhibit 3.1

CERTIFICATE OF DESIGNATION OF
SERIES C CONVERTIBLE PREFERRED STOCK
OF
PIERIS PHARMACEUTICALS, INC.

Pieris Pharmaceuticals, Inc., a Nevada corporation (the "**Corporation**"), in accordance with the provisions of Nevada Revised Statutes ("**NRS**") 78.195 and 78.1955, does hereby certify that, pursuant to the authority conferred upon the board of directors of the Corporation (the "**Board of Directors**") by the Corporation's articles of incorporation, as heretofore amended to date (the "**Articles of Incorporation**"), the Board of Directors has, by a resolution duly adopted pursuant thereto, established a series of the Corporation's preferred stock consisting of 3,522 shares of the Corporation's preferred stock, par value $0.001 per share, designated as "Series C Convertible Preferred Stock" and having the voting powers, designations, preferences, privileges, limitations, restrictions and relative rights set forth as follows, in addition to any provisions of the Articles of Incorporation applicable to all classes and series of Preferred Stock (all capitalized terms used but not defined herein shall have the meanings set forth in the Articles of Incorporation):

Section 1. Definitions. For the purposes hereof, the following terms shall have the following meanings:

"**Affiliate**" means any person or entity that, directly or indirectly through one or more intermediaries, controls or is controlled by or is under common control with a person or entity, as such terms are used in and construed under Rule 144 under the Securities Act. With respect to a Holder, any investment fund or managed account that is managed on a discretionary basis by the same investment manager as such Holder will be deemed to be an Affiliate of such Holder.

"**Business Day**" means any day except Saturday, Sunday, any day which shall be a federal legal holiday in the United States or any day on which banking institutions in the State of New York are authorized or required by law or other governmental action to close.

"**Closing Sale Price**" means, for any security as of any date, the last closing trade price for such security prior to 4:00 p.m., New York City time, on the principal securities exchange or trading market where such security is listed or traded, as reported by Bloomberg, L.P. (or an equivalent, reliable reporting service mutually acceptable to and hereafter designated by Holders of a majority of the then-outstanding Series C Preferred Stock and the Corporation), or if the foregoing do not apply, the last trade price of such security in the over-the-counter market on the electronic bulletin board for such security as reported by Bloomberg, L.P., or, if no last trade price is reported for such security by Bloomberg, L.P., the average of the bid prices of any market makers for such security as reported on the OTC Pink Market by OTC Markets Group, Inc. If the Closing Sale Price cannot be calculated for a security on a particular date on any of the foregoing bases, the Closing Sale Price of such security on such date shall be the fair market value as determined in good faith by the Board of Directors of the Corporation.

"**Commission**" means the Securities and Exchange Commission.

"**Common Stock**" means the Corporation's common stock, par value $0.001 per share, and stock of any other class of securities into which such securities may hereafter be reclassified or changed into.

"**Conversion Ratio**" means 1,000 shares of Common Stock issuable upon conversion of every one share of Series C Preferred Stock, as such 1000:1 ratio may be adjusted from time to time in accordance with Section 7.

"**Conversion Shares**" means, collectively, the shares of Common Stock issuable upon conversion of the shares of Series C Preferred Stock in accordance with the terms hereof.

"**Exchange Act**" means the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder.

"**Holder**" means any holder of Series C Preferred Stock.

"**Issuance Date**" means the date of the "Closing" as defined in that certain Securities Purchase Agreement, dated November 2, 2019, by and among the Corporation and the "Purchasers" named therein.

"**Person**" means any individual or corporation, partnership, trust, incorporated or unincorporated association, joint venture, limited liability company, joint stock company, government (or an agency or subdivision thereof) or other entity of any kind.

"**Securities Act**" means the Securities Act of 1933, as amended, and the rules and regulations promulgated thereunder.

"**Trading Day**" means a day on which the Common Stock is traded for any period on the principal securities exchange or if the Common Stock is not traded on a principal securities exchange, on a day that the Common Stock is traded on another securities market on which the Common Stock is then being traded.

Section 2. Designation, Amount and Par Value; Assignment.

(a) The series of preferred stock designated by this Certificate of Designation shall be designated as the Corporation's Series C Convertible Preferred Stock (the "**Series C Preferred Stock**") and the number of shares so designated shall be 3,522 (which shall not be subject to increase except pursuant to an amendment to this Certificate of Designation duly adopted in accordance with the applicable law and the written consent of the Holders of a majority of the issued and outstanding Series C Preferred Stock). Each share of Series C Preferred Stock shall have a par value of $0.001 per share.

(b) The Corporation shall register shares of the Series C Preferred Stock in the name of the Holders thereof from time to time upon records to be maintained by the Corporation for that purpose (the "**Series C Preferred Stock Register**"). The Series C Preferred Stock shall be issued in book entry only, provided that the Corporation shall issue one or more certificates representing shares of Series C Preferred Stock, to the extent such issuance is requested by a given Holder. References herein to certificates representing the Series C Preferred Stock shall apply only if such shares have been issued in certificated form. The Corporation may deem and treat the registered Holder of shares of Series C Preferred Stock as the absolute owner thereof for the purpose of any conversion thereof and for all other purposes. The Corporation shall register the transfer of any shares of Series C Preferred Stock in the Series C Preferred Stock Register, upon surrender of the certificates evidencing such shares to be transferred, duly endorsed by the Holder thereof, to the Corporation at its address specified herein. Upon any such registration or transfer, a new certificate evidencing the shares of Series C Preferred Stock so transferred shall be issued to the transferee (if requested) and a new certificate evidencing the remaining portion of the shares not so transferred, if any, shall be issued to the transferring Holder, in each case, within three Business Days. The provisions of this Certificate of Designation are intended to be for the benefit of all Holders from time to time and shall be enforceable by any such Holder.

Section 3. Dividends. Holders be entitled to receive when, as and if dividends are declared and paid on the Corporation's Common Stock, an equivalent dividend (with the same dividend declaration date and payment date), calculated on an as-converted basis. Other than the foregoing, the Holders of Series C Preferred Stock shall not be entitled to receive any dividends in respect of the Series C Preferred Stock, unless and until specifically declared by the Board of Directors of the Corporation to be payable to the Holders of the Series C Preferred Stock.

Section 4. Voting Rights. Except as otherwise provided herein or as otherwise required by the NRS, the Series C Preferred Stock shall have no voting rights. However, as long as any shares of Series C Preferred Stock are outstanding, the Corporation shall not, without the affirmative vote of the Holders of a majority of the then outstanding shares of the Series C Preferred Stock, (a) alter or change adversely the powers, preferences or rights given to the Series C Preferred Stock or alter or amend this Certificate of Designation, (b) increase the number of authorized shares of Series C Preferred Stock, or (c) enter into any agreement with respect to any of the foregoing.

Section 5. Rank; Liquidation.

(a) The Series C Preferred Stock shall rank (i) senior to the Common Stock, and (ii) senior to any class or series of capital stock of the Corporation hereafter created specifically ranking by its terms junior to any Series C Preferred Stock ("**Junior Securities**"); (iii) on parity with all shares of the Corporation's Series A Convertible Preferred Stock and Series B Convertible Preferred Stock; (iv) on parity with any other class or series of capital stock of the Corporation hereafter created specifically ranking by its terms on parity with the Series C Preferred Stock (together with the Corporation's Series A Convertible Preferred Stock and Series B Convertible Preferred Stock, the "**Parity Securities**"); and (v) junior to any class or series of capital stock of the Corporation hereafter created specifically ranking by its terms senior to any Series C Preferred Stock ("**Senior Securities**"), in each case, as to distributions of assets upon liquidation, dissolution or winding up of the Corporation, whether voluntarily or involuntarily.

(b) Subject to the prior and superior rights of the holders of any Senior Securities of the Corporation, upon liquidation, dissolution or winding up of the Corporation, whether voluntary or involuntary, each Holder shall be entitled to receive, in preference to any distributions of any of the assets or surplus funds of the Corporation to the holders of the Common Stock and Junior Securities and *pari passu* with any distribution to the holders of Parity Securities, an amount equal to $0.001 per share of Series C Preferred Stock, plus an additional amount equal to any dividends declared but unpaid on such shares, before any payments shall be made or any assets distributed to holders of any class of Common Stock or Junior Securities; *provided, however*, if that if the amount payable on a per-share basis to the holders of Common Stock on any such liquidation, dissolution or winding up of the Corporation shall be greater than the foregoing liquidation preference that is payable to the holders of the Series C Preferred Stock, then the holders of Series C Preferred Stock shall instead receive, on an per-share and as-converted basis, the same assets or surplus funds that is to be distributed to the holders of Common Stock. If, upon any such liquidation, dissolution or winding up of the Corporation, the assets of the Corporation shall be insufficient to pay the holders of shares of the Series C Preferred Stock the amount required under the preceding sentence, then all remaining assets of the Corporation shall be distributed ratably to holders of the shares of the Series C Preferred Stock and Parity Securities.

Section 6. Conversion.

(a) Conversions at Option of Holder. Each whole share of Series C Preferred Stock shall be convertible, at any time and from time to time from and after the Issuance Date, at the option of the Holder thereof, into a number of shares of Common Stock equal to the Conversion Ratio, as adjusted from time to time pursuant to Section 7. Holders shall effect conversions by providing the Corporation with the form of conversion notice attached hereto as Annex A (a "**Notice of Conversion**"), duly completed and executed. Other than a conversion following a Fundamental Transaction or following a notice provided for under Section 7(d)(ii) hereof, the Notice of Conversion must specify at least a number of shares of Series C Preferred Stock to be converted equal to the lesser of (x) 100 shares (such number subject to appropriate adjustment following the occurrence of an event specified in Section 7(a) hereof) and (y) the number of shares of Series C Preferred Stock then held by the Holder. Provided the Corporation's transfer agent is participating in the Depository Trust Company ("**DTC**") Fast Automated Securities Transfer program, the Notice of Conversion may specify, at the Holder's election, whether the applicable Conversion Shares shall be credited to the account of the Holder's prime broker with DTC through its Deposit Withdrawal Agent Commission system (a "**DWAC Delivery**"). The "**Conversion Date**", or the date on which a conversion shall be deemed effective, is defined as the Trading Day that the Notice of Conversion, completed and executed, is sent by facsimile to, and received during regular business hours by, the Corporation; provided that if such shares of Series C Preferred Stock were issued in certificated form, then the original certificate(s) representing such shares of Series C Preferred Stock being converted, duly endorsed, and the accompanying Notice of Conversion, are received by the Corporation within two Trading Days thereafter. In all other cases, the Conversion Date shall be defined as the Trading Day on which the original certificates (if any) representing the shares of Series C Preferred Stock being converted, duly endorsed, and the accompanying Notice of Conversion, are received by the Corporation. The calculations set forth in the Notice of Conversion shall control in the absence of manifest or mathematical error.

(b) Beneficial Ownership Limitation. Notwithstanding anything in this Certificate of Designation to the contrary, the Corporation shall not effect any conversion of the Series C Preferred Stock, and a Holder shall not have the right to convert any portion of the Series C Preferred Stock, to the extent that, after giving effect to an attempted conversion set forth on an applicable Notice of Conversion, such Holder (together with such Holder's Affiliates, and any other Person whose beneficial ownership of Common Stock would be aggregated with the

Holder's for purposes of Section 13(d) of the Exchange Act and the applicable regulations of the Commission, including any "group" of which the Holder is a member) would beneficially own a number of shares of Common Stock in excess of the Beneficial Ownership Limitation (as defined below). For purposes of the foregoing sentence, the number of shares of Common Stock beneficially owned by such Holder and its Affiliates shall include the number of shares of Common Stock issuable upon conversion of the Series C Preferred Stock subject to the Notice of Conversion with respect to which such determination is being made, but shall exclude the number of shares of Common Stock which are issuable upon (A) conversion of the remaining, unconverted Series C Preferred Stock beneficially owned by such Holder or any of its Affiliates, and (B) exercise or conversion of the unexercised or unconverted portion of any other securities of the Corporation (including any warrants) beneficially owned by such Holder or any of its Affiliates that are subject to a limitation on conversion or exercise similar to the limitation contained herein. Except as set forth in the preceding sentence, for purposes of this Section 6(b), beneficial ownership shall be calculated in accordance with Section 13(d) of the Exchange Act and the applicable regulations of the Commission. In addition, for purposes hereof, "group" has the meaning set forth in Section 13(d) of the Exchange Act and the applicable regulations of the Commission. For purposes of this Section 6(b), it is understood that the number of shares of Common Stock beneficially owned by each Holder shall be aggregated with each other Holder for purposes of Section 13(d) of the Exchange Act. For purposes of this Section 6(b), in determining the number of outstanding shares of Common Stock, absent actual knowledge of such Holder to the contrary, a Holder may rely on the number of outstanding shares of Common Stock as stated in the most recent of the following: (A) the Corporation's most recent periodic or annual filing with the Commission, as the case may be, (B) a more recent public announcement by the Corporation that is filed with the Commission, or (C) a more recent notice by the Corporation or the Corporation's transfer agent to the Holder setting forth the number of shares of Common Stock then outstanding. Upon the written request of a Holder (which may be by email), the Corporation shall, within three Trading Days thereof, confirm in writing to such Holder (which may be via email) the number of shares of Common Stock then outstanding. In any case, the number of outstanding shares of Common Stock shall be determined after giving effect to any actual conversion or exercise of securities of the Corporation, including shares of Series C Preferred Stock, by such Holder or its Affiliates since the date as of which such number of outstanding shares of Common Stock was last publicly reported or confirmed to the Holder. The initial "**Beneficial Ownership Limitation**" shall be 9.99% of the number of shares of the Common Stock outstanding immediately after giving effect to the issuance of shares of Common Stock pursuant to such Notice of Conversion (to the extent permitted pursuant to this Section 6(b)). By written notice to the Corporation, which will not be effective until the 61st day after such notice is delivered to the Corporation, a Holder may increase or decrease the Beneficial Ownership Limitation applicable solely to such Holder to such other percentage limit as may be determined by the Holder, not to exceed 19.99%, provided that any increase in the Beneficial Ownership Limitation shall not be effective until the 61st day after such notice is delivered to the Corporation. The Corporation shall be entitled to rely on representations made to it by the Holder in any Notice of Conversion regarding its Beneficial Ownership Limitation.

(c) Mechanics of Conversion

(i) Delivery of Certificate or Electronic Issuance Upon Conversion. Not later than two Trading Days after the applicable Conversion Date, or if the Holder requests the issuance of physical certificate(s), two Trading Days after receipt by the Corporation of the original certificate(s) representing such shares of Series C Preferred Stock being converted, duly endorsed, and the accompanying Notice of Conversion (the "**Share Delivery Date**"), the Corporation shall: (a) deliver, or cause to be delivered, to the converting Holder a physical certificate or certificates representing the number of Conversion Shares being acquired upon the conversion of shares of Series C Preferred Stock, or (b) in the case of a DWAC Delivery, electronically transfer such Conversion Shares by crediting the account of the Holder's prime broker with DTC through its DWAC system. If in the case of any Notice of Conversion such certificate or certificates are not delivered to or as directed by or, in the case of a DWAC Delivery, such shares are not electronically delivered to or as directed by, the applicable Holder by the Share Delivery Date, the applicable Holder shall be entitled to elect to rescind such Conversion Notice by written notice to the Corporation at any time on or before its receipt of such certificate or certificates for Conversion Shares or electronic receipt of such shares, as applicable, in which event the Corporation shall promptly return to such Holder any original Series C Preferred Stock certificate delivered to the Corporation and such Holder shall promptly return to the Corporation any Common Stock certificates or otherwise direct the return of any shares of Common Stock delivered to the Holder through the DWAC system, representing the shares of Series C Preferred Stock unsuccessfully tendered for conversion to the Corporation.

(ii) Obligation Absolute. Subject to Section 6(b) hereof and subject to Holder's right to rescind a Conversion Notice pursuant to Section 6(c)(i) above, the Corporation's obligation to issue and deliver the Conversion Shares upon conversion of Series C Preferred Stock in accordance with the terms hereof are absolute and unconditional, irrespective of any action or inaction by a Holder to enforce the same, any waiver or consent with respect to any provision hereof, the recovery of any judgment against any Person or any action to enforce the same, or any setoff, counterclaim, recoupment, limitation or termination, or any breach or alleged breach by such Holder or any other Person of any obligation to the Corporation or any violation or alleged violation of law by such Holder or any other Person, and irrespective of any other circumstance which might otherwise limit such obligation of the Corporation to such Holder in connection with the issuance of such Conversion Shares. Subject to Section 6(b) hereof and subject to Holder's right to rescind a Conversion Notice pursuant to Section 6(c)(i) above, in the event a Holder shall elect to convert any or all of its Series C Preferred Stock, the Corporation may not refuse conversion based on any claim that such Holder or anyone associated or affiliated with such Holder has been engaged in any violation of law, agreement or for any other reason, unless an injunction from a court, on notice to Holder, restraining and/or enjoining conversion of all or part of the Series C Preferred Stock of such Holder shall have been sought and obtained by the Corporation, and the Corporation posts a surety bond for the benefit of such Holder in the amount of 150% of the value of the Conversion Shares into which would be converted the Series C Preferred Stock which is subject to such injunction, which bond shall remain in effect until the completion of arbitration/litigation of the underlying dispute and the proceeds of which shall be payable to such Holder to the extent it obtains judgment. In the absence of such injunction, the Corporation shall, subject to Section 6(c) hereof and subject to Holder's right to rescind a Conversion Notice pursuant to Section 6(c)(i) above, issue Conversion Shares upon a properly noticed conversion. Nothing herein shall limit a Holder's right to pursue actual damages for the Corporation's failure to deliver Conversion Shares within the period specified herein and such Holder shall have the right to pursue all remedies available to it hereunder, at law or in equity including, without limitation, a decree of specific performance and/or injunctive relief; provided that Holder shall not receive duplicate damages for the Corporation's failure to deliver Conversion Shares within the period specified herein. The exercise of any such rights shall not prohibit a Holder from seeking to enforce damages pursuant to any other Section hereof or under applicable law.

(iii) Compensation for Buy-In on Failure to Timely Deliver Certificates Upon Conversion. If the Corporation fails to deliver to a Holder the applicable certificate or certificates or to effect a DWAC Delivery, as applicable, by the Share Delivery Date pursuant to Section 6(c)(i) (other than a failure caused by incorrect or incomplete information provided by Holder to the Corporation), and if after such Share Delivery Date such Holder is required by its brokerage firm to purchase (in an open market transaction or otherwise), or the Holder's brokerage firm otherwise purchases, shares of Common Stock to deliver in satisfaction of a sale by such Holder of the Conversion Shares which such Holder was entitled to receive upon the conversion relating to such Share Delivery Date (a "**Buy-In**"), then the Corporation shall (A) pay in cash to such Holder (in addition to any other remedies available to or elected by such Holder) the amount by which (x) such Holder's total purchase price (including any brokerage commissions) for the shares of Common Stock so purchased exceeds (y) the product of (1) the aggregate number of shares of Common Stock that such Holder was entitled to receive from the conversion at issue multiplied by (2) the actual sale price at which the sell order giving rise to such purchase obligation was executed (including any brokerage commissions) and (B) at the option of such Holder, either reissue (if surrendered) the shares of Series C Preferred Stock equal to the number of shares of Series C Preferred Stock submitted for conversion or deliver to such Holder the number of shares of Common Stock that would have been issued if the Corporation had timely complied with its delivery requirements under Section 6(c)(i). For the avoidance of doubt, this Section 6(c)(ii) shall not apply if the Corporation does not effect a conversion pursuant to the limitations of Section 6(b). For example, if a Holder purchases shares of Common Stock having a total purchase price of $11,000 to cover a Buy-In with respect to an attempted conversion of shares of Series C Preferred Stock with respect to which the actual sale price (including any brokerage commissions) giving rise to such purchase obligation was a total of $10,000 under clause (A) of the immediately preceding sentence, the Corporation shall be required to pay such Holder $1,000. The Holder shall provide the Corporation written notice, within three (3) Trading Days after the occurrence of a Buy-In, indicating the amounts payable to such Holder in respect of such Buy-In together with applicable confirmations and other evidence reasonably requested by the Corporation. Nothing herein shall limit a Holder's right to pursue any other remedies available to it hereunder, at law or in equity including, without limitation, a decree of specific performance and/or injunctive relief with respect to the Corporation's failure to timely deliver certificates representing shares of Common Stock upon conversion of the shares of Series C Preferred Stock as required pursuant to the terms hereof; provided, however, that the Holder shall not be entitled to both (i) require the

reissuance of the shares of Series C Preferred Stock submitted for conversion for which such conversion was not timely honored and (ii) receive the number of shares of Common Stock that would have been issued if the Corporation had timely complied with its delivery requirements under Section 6(c)(i).

(iv) Reservation of Shares Issuable Upon Conversion. The Corporation covenants that it will at all times reserve and keep available out of its authorized and unissued shares of Common Stock for the sole purpose of issuance upon conversion of the Series C Preferred Stock, free from preemptive rights or any other actual contingent purchase rights of Persons other than the Holders of the Series C Preferred Stock, not less than such aggregate number of shares of the Common Stock as shall be issuable (taking into account the adjustments of Section 7) upon the conversion of all outstanding shares of Series C Preferred Stock. The Corporation covenants that all shares of Common Stock that shall be so issuable shall, upon issue, be duly authorized, validly issued, fully paid and non-assessable.

(v) Fractional Shares. No fractional shares or scrip representing fractional shares of Common Stock shall be issued upon the conversion of the Series C Preferred Stock. As to any fraction of a share which a Holder would otherwise be entitled to receive upon such conversion, the Corporation shall pay a cash adjustment in respect of such final fraction in an amount equal to such fraction multiplied by the fair value of the fraction of the Common Stock (determined with reference to the Closing Sale Price).

(vi) Transfer Taxes. The issuance of certificates for shares of the Common Stock upon conversion of the Series C Preferred Stock shall be made without charge to any Holder for any documentary stamp or similar taxes that may be payable in respect of the issue or delivery of such certificates, provided that the Corporation shall not be required to pay any tax that may be payable in respect of any transfer involved in the issuance and delivery of any such certificate upon conversion in a name other than that of the registered Holder(s) of such shares of Series C Preferred Stock and the Corporation shall not be required to issue or deliver such certificates unless or until the Person or Persons requesting the issuance thereof shall have paid to the Corporation the amount of such tax or shall have established to the satisfaction of the Corporation that such tax has been paid.

(d) Status as Stockholder. Upon each Conversion Date, (i) the shares of Series C Preferred Stock being converted shall be deemed converted into shares of Common Stock and (ii) the Holder's rights as a holder of such converted shares of Series C Preferred Stock shall cease and terminate, excepting only the right to receive certificates for such shares of Common Stock and to any remedies provided herein or otherwise available at law or in equity to such Holder because of a failure by the Corporation to comply with the terms of this Certificate of Designation. In all cases, the Holder shall retain all of its rights and remedies for the Corporation's failure to convert Series C Preferred Stock.

Section 7. Certain Adjustments.

(a) Stock Dividends and Stock Splits. If the Corporation, at any time while any Series C Preferred Stock is outstanding: (i) pays a stock dividend or otherwise makes a distribution or distributions payable in shares of Common Stock (which, for avoidance of doubt, shall not include any shares of Common Stock issued by the Corporation upon conversion of any Series C Preferred Stock) with respect to the then outstanding shares of Common Stock; (ii) subdivides outstanding shares of Common Stock into a larger number of shares; or (iii) combines (including by way of a reverse stock split) outstanding shares of Common Stock into a smaller number of shares, then the Conversion Ratio shall be multiplied by a fraction, of which the numerator shall be the number of shares of Common Stock (excluding any treasury shares of the Corporation) outstanding immediately after such event and of which the denominator shall be the number of shares of Common Stock outstanding immediately before such event (excluding any treasury shares of the Corporation). Any adjustment made pursuant to this Section 7(a) shall become effective immediately after the record date for the determination of stockholders entitled to receive such dividend or distribution and shall become effective immediately after the effective date in the case of a subdivision or combination.

(b) Fundamental Transaction. If, at any time while any Series C Preferred Stock is outstanding, (i) the Corporation effects any merger or consolidation of the Corporation with or into another Person (other than a merger in which the Corporation is the surviving or continuing entity and its Common Stock is not exchanged for or converted into other securities, cash or property), (ii) the Corporation effects any sale of all or substantially all of its

assets in one transaction or a series of related transactions, (iii) any tender offer or exchange offer (whether by the Corporation or another Person) is completed pursuant to which all of the Common Stock is exchanged for or converted into other securities, cash or property, or (iv) the Corporation effects any reclassification of the Common Stock or any compulsory share exchange pursuant (other than as a result of a dividend, subdivision or combination covered by Section 7(a) above) to which the Common Stock is effectively converted into or exchanged for other securities, cash or property (in any such case, a "**Fundamental Transaction**"), then, upon any subsequent conversion of Series C Preferred Stock, the Holders shall have the right to receive, in lieu of the right to receive Conversion Shares, for each Conversion Share that would have been issuable upon such conversion immediately prior to the occurrence of such Fundamental Transaction, the same kind and amount of securities, cash or property as it would have been entitled to receive upon the occurrence of such Fundamental Transaction if it had been, immediately prior to such Fundamental Transaction, the holder of one share of Common Stock (the "**Alternate Consideration**"). For purposes of any such subsequent conversion, the determination of the Conversion Ratio shall be appropriately adjusted to apply to such Alternate Consideration based on the amount of Alternate Consideration issuable in respect of one share of Common Stock in such Fundamental Transaction, and the Corporation shall adjust the Conversion Ratio in a reasonable manner reflecting the relative value of any different components of the Alternate Consideration. If holders of Common Stock are given any choice as to the securities, cash or property to be received in a Fundamental Transaction, then the Holders shall be given the same choice as to the Alternate Consideration it receives upon any conversion of Series C Preferred Stock following such Fundamental Transaction. To the extent necessary to effectuate the foregoing provisions, any successor to the Corporation or surviving entity in such Fundamental Transaction shall file a new Certificate of Designation with the same terms and conditions and issue to the Holders new preferred stock consistent with the foregoing provisions and evidencing the Holders' right to convert such preferred stock into Alternate Consideration. The terms of any agreement to which the Corporation is a party and pursuant to which a Fundamental Transaction is effected shall include terms requiring any such successor or surviving entity to comply with the provisions of this Section 7(b) and insuring that the Series C Preferred Stock (or any such replacement security) will be similarly adjusted upon any subsequent transaction analogous to a Fundamental Transaction. The Corporation shall cause to be delivered to each Holder, at its last address as it shall appear upon the stock books of the Corporation, written notice of any Fundamental Transaction at least 10 calendar days prior to the date on which such Fundamental Transaction is expected to become effective or close.

(c) Calculations. All calculations under this Section 7 shall be made to the nearest cent or the nearest 1/100th of a share, as the case may be. For purposes of this Section 7, the number of shares of Common Stock deemed to be issued and outstanding as of a given date shall be the sum of the number of shares of Common Stock (excluding any treasury shares of the Corporation) issued and outstanding.

(d) Notice to the Holders.

(i) Adjustment to Conversion Ratio. Whenever the Conversion Ratio is adjusted pursuant to any provision of this Section 7, the Corporation shall promptly deliver to each Holder a notice setting forth the Conversion Ratio after such adjustment and setting forth a brief statement of the facts requiring such adjustment.

(ii) Other Notices. If (A) the Corporation shall declare a dividend (or any other distribution in whatever form) on the Common Stock, (B) the Corporation shall declare a special nonrecurring cash dividend on or a redemption of the Common Stock, (C) the Corporation shall authorize the granting to all holders of the Common Stock of rights or warrants to subscribe for or purchase any shares of capital stock of any class or of any rights, (D) the approval of any stockholders of the Corporation shall be required in connection with any reclassification of the Common Stock, any consolidation or merger to which the Corporation is a party, any sale or transfer of all or substantially all of the assets of the Corporation, or any compulsory share exchange whereby the Common Stock is converted into other securities, cash or property, or (E) the Corporation shall authorize the voluntary or involuntary dissolution, liquidation or winding up of the affairs of the Corporation, then, in each case, the Corporation shall cause to be filed at each office or agency maintained for the purpose of conversion of the Series C Preferred Stock, and shall cause to be delivered to each Holder at its last address as it shall appear upon the stock books of the Corporation, at least 10 calendar days prior to the applicable record or effective date hereinafter specified, a notice stating (x) the date on which a record is to be taken for the purpose of such dividend, distribution, redemption, rights or warrants, or if a record is not to be taken, the date as of which the holders of the Common Stock of record to be entitled to such dividend, distributions, redemption, rights or warrants are to be determined or (y) the date on which

such reclassification, consolidation, merger, sale, transfer or share exchange is expected to become effective or close, and the date as of which it is expected that holders of the Common Stock of record shall be entitled to exchange their shares of the Common Stock for securities, cash or other property deliverable upon such reclassification, consolidation, merger, sale, transfer or share exchange, provided that the failure to deliver such notice or any defect therein or in the delivery thereof shall not affect the validity of the corporate action required to be specified in such notice.

Section 8. Miscellaneous.

(a) Redemption. The Series C Preferred Stock is not redeemable.

(b) Notices. Any and all notices or other communications or deliveries to be provided by the Holders hereunder including, without limitation, any Notice of Conversion, shall be in writing and delivered personally, via email, by facsimile, or sent by a nationally recognized overnight courier service, addressed to the Corporation, at 255 State Street, 9th Floor, Boston, MA, 02109, email mousa@pieris.com, or such other facsimile number or address as the Corporation may specify for such purposes by notice to the Holders delivered in accordance with this Section. Any and all notices or other communications or deliveries to be provided by the Corporation hereunder shall be in writing and delivered personally, by facsimile, or sent by a nationally recognized overnight courier service addressed to each Holder at the facsimile number or address of such Holder appearing on the books of the Corporation, or if no such facsimile number or address appears on the books of the Corporation, at the principal place of business of such Holder. Any notice or other communication or deliveries hereunder shall be deemed given and effective on the earliest of (i) the date of transmission, if such notice or communication is delivered via facsimile at the facsimile number specified in this Section prior to 5:30 p.m. (New York City time) on any date, (ii) the date immediately following the date of transmission, if such notice or communication is delivered via facsimile at the facsimile number specified in this Section between 5:30 p.m. and 11:59 p.m. (New York City time) on any date, (iii) the second Business Day following the date of mailing, if sent by nationally recognized overnight courier service, or (iv) upon actual receipt by the party to whom such notice is required to be given.

(c) Lost or Mutilated Series C Preferred Stock Certificate. If a Holder's Series C Preferred Stock certificate shall be mutilated, lost, stolen or destroyed, the Corporation shall execute and deliver, in exchange and substitution for and upon cancellation of a mutilated certificate, or in lieu of or in substitution for a lost, stolen or destroyed certificate, a new certificate for the shares of Series C Preferred Stock so mutilated, lost, stolen or destroyed, but only upon receipt of evidence of such loss, theft or destruction of such certificate, and of the ownership thereof, reasonably satisfactory to the Corporation and, in each case, customary and reasonable indemnity, if requested. Applicants for a new certificate under such circumstances shall also comply with such other reasonable regulations and procedures and pay such other reasonable third-party costs as the Corporation may prescribe.

(d) Waiver. Any waiver by the Corporation or a Holder of a breach of any provision of this Certificate of Designation shall not operate as or be construed to be a waiver of any other breach of such provision or of any breach of any other provision of this Certificate of Designation or a waiver by any other Holders. The failure of the Corporation or a Holder to insist upon strict adherence to any term of this Certificate of Designation on one or more occasions shall not be considered a waiver or deprive that party (or any other Holder) of the right thereafter to insist upon strict adherence to that term or any other term of this Certificate of Designation. Any waiver by the Corporation or a Holder must be in writing. Notwithstanding any provision in this Certificate of Designation to the contrary, any provision contained herein and any right of the Holders of Series C Preferred Stock granted hereunder may be waived as to all shares of Series C Preferred Stock (and the Holders thereof) upon the written consent of the Holders of not less than a majority of the shares of Series C Preferred Stock then outstanding, unless a higher percentage is required by the NRS, in which case the written consent of the Holders of not less than such higher percentage shall be required.

(e) Severability. If any provision of this Certificate of Designation is invalid, illegal or unenforceable, the balance of this Certificate of Designation shall remain in effect, and if any provision is inapplicable to any Person or circumstance, it shall nevertheless remain applicable to all other Persons and circumstances. If it shall be found that any interest or other amount deemed interest due hereunder violates the applicable law governing usury,

the applicable rate of interest due hereunder shall automatically be lowered to equal the maximum rate of interest permitted under applicable law.

(f) Next Business Day. Whenever any payment or other obligation hereunder shall be due on a day other than a Business Day, such payment shall be made on the next succeeding Business Day.

(g) Headings. The headings contained herein are for convenience only, do not constitute a part of this Certificate of Designation and shall not be deemed to limit or affect any of the provisions hereof.

(h) Status of Converted Series C Preferred Stock. If any shares of Series C Preferred Stock shall be converted or reacquired by the Corporation, such shares shall, without need for any action by the Board of Directors or otherwise, resume the status of authorized but unissued shares of preferred stock and shall no longer be designated as Series C Preferred Stock.

****

IN WITNESS WHEREOF, the undersigned has executed this Certificate of Designation this 4th day of November 2019.

PIERIS PHARMACEUTICALS, INC.

By: /s/ Stephen S. Yoder
Name: Stephen S. Yoder
Title: President and Chief Executive Officer

ANNEX A

NOTICE OF CONVERSION

(TO BE EXECUTED BY THE REGISTERED HOLDER IN ORDER TO CONVERT
SHARES OF SERIES C PREFERRED STOCK)

The undersigned Holder hereby irrevocably elects to convert the number of shares of Series C Convertible Preferred Stock indicated below, represented by stock certificate No(s)._____ (the "**Preferred Stock Certificates**"), into shares of common stock, par value $0.001 per share (the "**Common Stock**"), of Pieris Pharmaceuticals, Inc., a Nevada corporation (the "**Corporation**"), as of the date written below. If securities are to be issued in the name of a person other than the undersigned, the undersigned will pay all transfer taxes payable with respect thereto. Capitalized terms utilized but not defined herein shall have the meaning ascribed to such terms in that certain Certificate of Designation of Preferences, Rights and Limitations of Series C Convertible Preferred Stock (the "**Certificate of Designation**") filed by the Corporation with the Secretary of State of the State of Nevada on November 4, 2019.

As of the date hereof, the number of shares of Common Stock beneficially owned by the undersigned Holder (together with such Holder's Affiliates, and any other Person whose beneficial ownership of Common Stock would be aggregated with the Holder's for purposes of Section 13(d) of the Exchange Act and the applicable regulations of the Commission, including any "group" of which the Holder is a member), including the number of shares of Common Stock issuable upon conversion of the Series C Preferred Stock subject to this Notice of Conversion, but excluding the number of shares of Common Stock which are issuable upon (A) conversion of the remaining, unconverted Series C Preferred Stock beneficially owned by such Holder or any of its Affiliates, and (B) exercise or conversion of the unexercised or unconverted portion of any other securities of the Corporation (including any warrants) beneficially owned by such Holder or any of its Affiliates that are subject to a limitation on conversion or exercise similar to the limitation contained in Section 6(c) of the Certificate of Designation, is [_____]. For purposes hereof, beneficial ownership shall be calculated in accordance with Section 13(d) of the Exchange Act and the applicable regulations of the Commission. In addition, for purposes hereof, "**group**" has the meaning set forth in Section 13(d) of the Exchange Act and the applicable regulations of the Commission.

Conversion calculations:

Date to Effect Conversion:

Number of shares of Series C Preferred Stock owned prior to Conversion:

Number of shares of Series C Preferred Stock to be Converted:

Number of shares of Common Stock to be Issued:

Address for delivery of physical certificates:

or

for DWAC Delivery:

DWAC Instructions:

Broker no: _____

Account no: _____

[HOLDER]

By: _____
Name: _____
Title: _____

Date: _____

[HOLDER]

By: _____
Name:
Title:

Date:

Exhibit 3.2

PIERIS PHARMACEUTICALS, INC.

AMENDED AND RESTATED BYLAWS

(effective August 30, 2019)

ARTICLE I - STOCKHOLDERS

Section 1. Annual Meeting.

An annual meeting of the stockholders of the Corporation, for the election of directors to succeed those whose terms expire and for the transaction of such other business as may properly come before the meeting, shall be held at such place, on such date, and at such time as the Board of Directors shall fix. The Board of Directors may, in its sole discretion, determine that the meeting shall not be held at any place, but instead shall be held solely by means of remote communication as provided under the Nevada Revised Statutes (as amended from time to time, the "NRS").

Section 2. Special Meetings.

Special meetings of the stockholders of the Corporation may be called only by the Board of Directors pursuant to a resolution adopted by a majority of the Whole Board. For the purposes of these Restated Bylaws, the term "Whole Board" shall mean the total number of authorized directors whether or not there exist any vacancies in previously authorized directorships. Special meetings of the stockholders may be held at such place within or without the State of Nevada as may be stated in such resolution. The Board of Directors or the person designated by the Board of Directors to call the meeting may, in its or his sole discretion, determine that the meeting shall not be held at any place, but instead shall be held solely by means of remote communication as provided under the NRS.

Section 3. Notice of Meetings.

Notice of the place, if any, date, and time of all meetings of the stockholders, and the means of remote communications, if any, by which the stockholders and proxyholders thereof may be deemed to be present in person and vote at such meeting, shall be given by the Corporation, not less than ten (10) nor more than sixty (60) days before the date on which the meeting is to be held, to each stockholder entitled to vote at such meeting, except as otherwise provided herein or required by law (by law meaning, here and hereinafter, by the NRS and Corporation's Amended and Restated Articles of Incorporation, as amended or restated from time to time (the "Restated Articles of Incorporation")).

When a meeting is adjourned to another place, if any, date or time, notice need not be given of the adjourned meeting if the place, if any, date and time thereof, and the means of remote communications, if any, by which the stockholders and proxyholders thereof may be deemed to be present in person and vote at such adjourned meeting, are announced at the meeting at which the adjournment is taken; provided, however, that (i) if the date of any adjourned meeting is more than thirty (30) days after the date for which the meeting was originally noticed, or (ii) if a new record date is fixed for the adjourned meeting, notice of the place, if any, date, and time of the adjourned meeting, and the means of remote communications, if any, by which the stockholders and proxyholders thereof may be deemed to be present in person and vote at such adjourned meeting, shall be given in conformity with the first paragraph of this Section 3. At any adjourned meeting, any business may be transacted which might have been transacted at the original meeting.

Section 4. Quorum.

At any meeting of the stockholders, the holders of a majority of the voting power of all of the shares of capital stock of the Corporation entitled to vote at the meeting, present in person or by proxy, shall constitute a quorum for all purposes, unless or except to the extent that the presence of a larger number may be required by law, by the Restated Articles of Incorporation or by rules of any stock exchange upon which the Corporation's securities are listed. Where a separate vote by a class or classes of the shares of capital stock of the Corporation is required, a majority of the voting power of the shares of such class or classes present in person or represented by proxy shall constitute a quorum entitled to take action with respect to that vote on that matter, unless or except to the extent that the presence of a larger number may be required by law, by the Restated Articles of Incorporation or by rules of any stock exchange upon which the Corporation's securities are listed..

If a quorum shall fail to attend any meeting, the chairman of the meeting may adjourn the meeting to another place, if any, date, or time.

Section 5. Organization and Conduct of Business.

The Chairman of the Board of Directors or, in his or her absence, the Chief Executive Officer or, in his or her absence, the President or, in his or her absence, such person as the Board of Directors may have designated, shall call to order any meeting of the stockholders and shall preside at and act as chairman of the meeting. The Secretary shall be the secretary of any meeting of the stockholders. In the absence of the Secretary and any Assistant Secretary, the secretary of the meeting shall be such person as the chairman of the meeting appoints. The chairman of any meeting of the stockholders shall determine the order of business and the procedures at the meeting, including such regulation of the manner of voting and the conduct of discussion as he or she deems to be appropriate. The chairman of any meeting of the stockholders shall have the power to adjourn the meeting to another place, if any, date and time. The date and time of the opening and closing of the polls for each matter upon which the stockholders will vote at the meeting shall be announced at the meeting.

Section 6. Notice of Stockholder Business and Nominations.

A. Annual Meetings of Stockholders.

Nominations of persons for election to the Board of Directors and the proposal of business to be considered by the stockholders may be made at an annual meeting of the stockholders (a) pursuant to the Corporation's notice of meeting or proxy materials with respect to such meeting, (b) by or at the direction of the Board of Directors or (c) by any stockholder of the Corporation who was a stockholder of record at the time of giving of notice thereof who is entitled to vote at the meeting and who complies with the notice procedures set forth in this paragraph C of Section 6.

B. Special Meetings of Stockholders.

Only such business, shall be conducted at a special meeting of stockholders as shall have been brought before the meeting pursuant to the notice of meeting given pursuant to Section 2 above. The notice of such special meeting shall include the purpose for which the meeting is called. Nominations of persons for election to the Board of Directors may be made at a special meeting of the stockholders at which directors are to be elected only (a) by or at the direction of the Board of Directors or (b) if the Board of Directors has determined that directors shall be elected at such meeting, by any stockholder of the Corporation who is a stockholder of record at the time of giving of notice thereof, who shall be entitled to vote at the meeting and who complies with the notice procedures set forth in paragraph C of this Section 6.

C. Certain Matters Pertaining to Stockholder Business and Nominations.

(1) For nominations or other business to be properly brought by a stockholder before an annual meeting pursuant to clause (c) of paragraph A of this Section 6 or a special meeting pursuant to paragraph B of this Section 6, (1.) the stockholder must have given timely notice thereof in writing to the Secretary of the Corporation, (2.) such other business must otherwise be a proper matter for stockholder action under the NRS, (3.) if the stockholder, or the beneficial owner on whose behalf any such proposal or nomination is made, has provided the Corporation with a Solicitation Notice, as that term is defined in this paragraph C, such stockholder or beneficial owner must, in the case of a proposal, have delivered a proxy statement and form of proxy to holders of a sufficient percentage of the Corporation's voting shares required by law to carry any such proposal, or, in the case of a nomination or nominations, have delivered a proxy statement and form of proxy to holders of a percentage of the Corporation's voting shares reasonably believed by such stockholder or beneficial holder to be sufficient to elect the nominee or nominees proposed to be nominated by such stockholder, and must, in either case, have included in such materials the Solicitation Notice, and (4.) if no Solicitation Notice relating thereto has been timely provided pursuant to paragraph C of this Section 6, the stockholder or beneficial owner proposing such business or nomination must not have solicited a number of proxies sufficient to have required the delivery of such a Solicitation Notice under this Section.

To be timely, a stockholder's notice pertaining to an annual meeting shall be delivered to the Secretary at the principal executive office of the Corporation not less than ninety (90) or more than one-hundred and twenty (120) days prior to the first anniversary (the "Anniversary") of the date of the preceding year's annual meeting; provided, however, that in the event that the date of the annual meeting is more than thirty (30) days before or more than thirty (30) days after the

Anniversary, to be timely, notice by the stockholder must be so delivered not earlier than the close of business (at the principal executive office of the Corporation) on the one-hundred and twentieth (120th) day prior to such annual meeting and not later than the close of business on the later of (i) the ninetieth (90th) day prior to such annual meeting or (ii) the close of business on the tenth (10th) day following the day on which public announcement of the date of such meeting is first made by the Corporation. Such stockholder's notice for an annual meeting or a special meeting shall set forth:

(a) as to each person whom the stockholder proposes to nominate for election or reelection as a director of the Corporation:

(i) all information relating to such person that is required to be disclosed in solicitations of proxies for election of directors, or is otherwise required, in each case, pursuant to Regulation 14A under the Securities Exchange Act of 1934, as amended (the "Exchange Act") (including such person's written consent to being named in the proxy statement as a nominee and to serving as a director, if elected);

(ii) a description of all direct and indirect compensation and other material monetary agreements, arrangements and understandings during the past three (3) years, and any other material relationships, between or among such stockholder, the beneficial owner, if any, on whose behalf any such proposal or nomination is being made, and their respective affiliates and associates, on the one hand, and each proposed nominee, and his or her respective affiliates and associates, on the other hand, including, without limitation, all information that would be required to be disclosed pursuant to Item 404 of Regulation S-K promulgated under the Securities Act of 1933, as amended, if such stockholder, such beneficial owner, or any affiliate or associate thereof, were the "registrant" for purposes of such rule and the nominee were a director or executive officer of such registrant;

(iii) to the extent known by the stockholder, the name and address of any other securityholder of the Corporation who owns, beneficially or of record, any securities of the Corporation and who supports any nominee proposed by such stockholder; and

(iv) the questionnaire and the representation and agreement, completed and signed by such person, as required by paragraph D of this Section 6;

(b) as to any other business that the stockholder proposes to bring before the meeting, a brief description of the business desired to be brought before the meeting, including the text of any resolutions proposed for consideration, the reasons for conducting such business at the meeting, any material interest in such business of such stockholder and the beneficial owner, if any, on whose behalf the proposal is made, and to the extent known by the stockholder, the name and address

of any other securityholder of the Corporation who owns, beneficially or of record, any securities of the Corporation and who supports any matter such stockholder intends to propose; and

(c) as to the stockholder giving the notice and the beneficial owner, if any, on whose behalf the nomination or proposal is made:

(i) the name and address of such stockholder, as they appear on the Corporation's books, and of such beneficial owner;

(ii) (A) the class or series and number of shares of the Corporation's capital stock which are, directly or indirectly, owned beneficially and of record by such stockholder and such beneficial owner, (B) any option, warrant, convertible security, stock appreciation right, or similar right with an exercise or conversion privilege or a settlement payment or mechanism at a price related to any class or series of the shares of the Corporation's capital stock or with a value derived in whole or in part from the value of any class or series of the shares of the Corporation's capital stock, whether or not such instrument or right shall be subject to settlement in the underlying class or series of the shares of capital stock of the Corporation (a "Derivative Instrument") directly or indirectly owned beneficially by such stockholder and such beneficial owner as well as any other direct or indirect opportunity for such stockholder and such beneficial owner to profit or share in any profit derived from any increase or decrease in the value of shares of the Corporation, (C) any proxy, contract, arrangement, understanding, or relationship pursuant to which such stockholder has a right to vote any shares of any security of the Corporation, (D) any short interest in any security of the Corporation (for purposes of these Bylaws, a person shall be deemed to have a short interest in a security if such person directly or indirectly, through any contract, arrangement, understanding, relationship or otherwise, has the opportunity to profit or share in any profit derived from any decrease in the value of the subject security), (E) any rights to dividends on the shares of the Corporation owned beneficially by such stockholder that are separated or separable from the underlying shares of the Corporation, (F) any proportionate interest in shares of the Corporation or Derivative Instruments held, directly or indirectly, by a general or limited partnership in which such stockholder or beneficial owner (i) is a general partner or, (ii) directly or indirectly, beneficially owns an interest in such general partner, and (G) any performance-related fees (other than an asset-based fee) that such stockholder or beneficial owner is entitled to based on any increase or decrease in the value of shares of the Corporation or Derivative Instruments as of the date of such notice, including, without limitation, any such interests held by members of such stockholder or beneficial owner's immediate family sharing the same household (which information shall be supplemented by such stockholder and beneficial owner not later than ten (10) days after the record date for the meeting to disclose such ownership as of the record date; provided, however, that if such date is after the date of the meeting, not later than the day prior to the meeting);

(iii) any other information relating to such stockholder and beneficial owner, if any, that would be required to be disclosed in a proxy statement or other filings required to be made in connection with solicitations of proxies for, as applicable, the proposal and/or for the election of directors in a contested election pursuant to Regulation 14A under the Exchange Act and the rules and regulations promulgated thereunder;

(iv) a description of all agreements, arrangements and understandings between such stockholder and beneficial owner, if any, and any other person or persons (including their names) in connection with the proposal of such business by such stockholder; and

(v) a statement of whether or not either such stockholder or beneficial owner intends to deliver a proxy statement and form of proxy, in the case of a proposal, to holders of a sufficient percentage of the Corporation's voting shares required by law to carry the proposal or, in the case of a nomination or nominations, to holders of a sufficient percentage of the Corporation's voting shares to elect such nominee or nominees (an affirmative statement of such intent, a "Solicitation Notice").

(2) Notwithstanding anything in the second sentence of paragraph C(1) of this Section 6 to the contrary, in the event that the number of directors to be elected to the Board of Directors is increased and there is no public announcement by the Corporation naming all of the nominees for director or specifying the size of the increased Board of Directors at least fifty-five (55) days prior to the Anniversary (or, if the annual meeting is held more than thirty (30) days before or thirty (30) days after the Anniversary, at least fifty-five (55) days prior to such annual meeting), a stockholder's notice required by this Section 6 shall also be considered timely, but only with respect to nominees for directorships newly created by such increase, and only if it is delivered to the Secretary at the principal executive office of the Corporation not later than the close of business on the tenth (10th) day following the day on which such public announcement is first made by the Corporation.

(3) In the event the Corporation calls a special meeting of the stockholders for the purpose of electing one or more directors to the Board of Directors, any such stockholder may nominate a person or persons (as the case may be), for election to such directorship(s) as specified in the Corporation's notice of meeting, provided, however, that the stockholder's notice required by paragraph C(1) of this Section 6 is delivered to the Secretary at the principal executive office of the Corporation not earlier than the ninetieth (90th) day prior to such special meeting nor later than the close of business on the later of (i) the sixtieth (60th) day prior to such special meeting, or (ii) the tenth (10th) day following the day on which public announcement is first made of the date of the special meeting and of the nominees proposed by the Board of Directors to be elected at such meeting.

D. General.

(1) Only such persons who are nominated in accordance with the procedures set forth in this Section 6 shall be eligible to serve as directors of the Corporation and only such business brought before a meeting of the stockholders in accordance with the procedures set forth in this Section 6 shall be conducted at such meeting. Except as otherwise provided by law, the Restated Articles of Incorporation or these Bylaws, the chairman of the meeting shall have the power and duty to determine whether a nomination or any business proposed to be brought before the meeting was made or proposed, as the case may be, in accordance with the procedures set forth in these Bylaws and, if any proposed nomination or business is not in compliance herewith, to declare that such defective proposal or nomination shall be disregarded.

(2) For purposes of this Section 6, "public announcement" shall mean disclosure in a press release reported by the Dow Jones News Service, Associated Press or comparable national news service or in a document publicly filed by the Corporation with the Securities and Exchange Commission pursuant to Section 13, 14 or 15(d) of the Exchange Act.

(3) Notwithstanding the foregoing provisions of this Section 6, a stockholder shall also comply with all applicable requirements of the Exchange Act and the rules and regulations thereunder with respect to the matters set forth herein. Nothing in this Section 6 shall be deemed to affect any rights (i) of the stockholders of the Corporation to request inclusion of proposals in the Corporation's proxy statement pursuant to Rule 14a-8 under the Exchange Act or (ii) of the holders of any series of Preferred Stock then outstanding to elect directors under specified circumstances.

(4) In addition to the requirements set forth elsewhere in these Bylaws, to be eligible to be a nominee for election or reelection as a director of the Corporation, a person must deliver, in accordance with the time periods prescribed for delivery of notice under Section 6(C) of this Article I, to the Secretary at the principal executive office of the Corporation a completed and signed questionnaire with respect to the background and qualification of such person and the background of any other person or entity on whose behalf the nomination is being made (which questionnaire shall be provided by the Secretary upon written request) and a written representation and agreement (in the form provided by the Secretary upon written request) that such person (i) is not and will not become a party to (A) any agreement, arrangement or understanding with, and has not given any commitment or assurance to, any other person or entity as to how such person, if elected as a director of the Corporation, will act or vote on any issue or question (a "Voting Commitment") that has not been disclosed to the Corporation or (B) any Voting Commitment that could limit or interfere with such person's ability to comply, if elected as a director of the Corporation, with such person's fiduciary duties under applicable law, (ii) is not and will not become a party to any agreement, arrangement or understanding with any other person or entity, other than the Corporation, with respect to any direct or indirect compensation, reimbursement or indemnification in connection with service or action as a director of the Corporation, and (iii) in such person's individual capacity and on behalf of any other person or entity on whose behalf the nomination is being made, would be in compliance, if elected as a director of the Corporation, and will comply with, applicable law and all applicable publicly disclosed corporate governance, code

of conduct and ethics, conflict of interest, corporate opportunities, trading and any other policies and guidelines of the Corporation applicable to directors.

(5) Notwithstanding the foregoing provisions of this Section 6, unless otherwise required by law, if a stockholder of the Corporation (or a qualified representative of the stockholder) does not appear in person at the annual or special meeting of the stockholders of the Corporation to make its nomination or propose any other matter, such nomination shall be disregarded and such other proposed matter shall not be transacted, even if proxies in respect of such vote have been received by the Corporation. For purposes of this Article I, to be considered a "qualified representative" of the stockholder, a person must be (i) a duly authorized officer, manager or partner of such stockholder or (ii) must be authorized by a writing executed by such stockholder or an electronic transmission delivered by such stockholder to act for such stockholder as proxy at the meeting of the stockholders, and such person must produce such writing or electronic transmission, or a reliable reproduction of the writing or electronic transmission, at the commencement of the meeting of the stockholders.

Section 7. Proxies and Voting.

At any meeting of the stockholders, every stockholder entitled to vote may vote (i) in person or (ii) by proxy authorized by an instrument, in writing or by a transmission, as permitted by law and the Restated Articles of Incorporation and filed in accordance with the procedure established for the meeting by the chairman of the meeting. Any copy, facsimile telecommunication or other reliable reproduction of the writing or transmission may be substituted or used in lieu of the original writing or transmission for any and all purposes under this Section 7 for which the original writing or transmission could be used, provided, however, that such copy, facsimile telecommunication or other reproduction shall be a complete reproduction of the entire original writing or transmission.

All voting, including on the election of directors but excepting where otherwise required by law, may be by voice vote. Any vote not taken by voice shall be taken by written ballots, each of which shall state the name of the stockholder or proxy voting and such other information as may be required by law, the Restated Articles of Incorporation and the procedure established for the meeting by the chairman of the meeting. The Corporation may, and to the extent required by law, shall, in advance of any meeting of the stockholders, appoint one or more inspectors to act at the meeting and make a written report thereof. The Corporation may designate one or more persons as alternate inspectors to replace any inspector who fails to act. If no inspector or alternate is able to act at a meeting of the stockholders, the person presiding at the meeting may, and to the extent required by law, shall, appoint one or more inspectors to act at the meeting and make a written report thereof. Each inspector, before entering upon the discharge of his duties, shall take and sign an oath to faithfully execute the duties of an inspector with strict impartiality and according to the best of his ability. Every vote taken by written ballots shall be counted by a duly appointed inspector or inspectors.

Except as otherwise provided in the terms of any class or series of Preferred Stock of the Corporation, (i) all elections of directors of the Corporation at any meeting of the stockholders shall

be determined by a plurality of the votes cast, and (ii) except as otherwise required by law, these Bylaws, the Restated Articles of Incorporation or the rules of any stock exchange upon which the Corporation's securities are listed, all other matters proposed at any meeting of the stockholders shall be determined by a majority of the votes cast affirmatively or negatively.

Section 8. Action Without Meeting.

Any action required or permitted to be taken by the stockholders of the Corporation may be effected only at a duly called annual or special meeting of the stockholders of the Corporation and may not be effected by written consent.

Section 9. Stock List.

A complete list of stockholders entitled to vote at any meeting of the stockholders, arranged in alphabetical order for each class or series of the shares of capital stock of the Corporation and showing the address of each such stockholder and the number of shares registered in his or her name, shall be open to the examination of any such stockholder for a period of at least ten (10) days prior to the meeting in the manner provided by law.

The stock list shall also be open to the examination of any stockholder during the whole time of the meeting as provided by law. Such list shall presumptively determine the identity of the stockholders entitled to examine such stock list and to vote at the meeting and the number of shares held by each of them. Any alleged mistake in such list will be examined by the Corporation within thirty (30) days after being notified thereof and any mistake discovered will be corrected by the Corporation in due course, without affecting the aforementioned presumption.

ARTICLE II - BOARD OF DIRECTORS

Section 1. General Powers, Number, Election, Tenure, Qualification and Chairman.

A. The business and affairs of the Corporation shall be managed by or under the direction of its Board of Directors.

B. Subject to the rights of the holders of any series of Preferred Stock then outstanding to elect additional directors under specified circumstances, the number of directors shall be fixed from time to time exclusively by the Board of Directors pursuant to a resolution adopted by a majority of the Whole Board.

C. Subject to the rights of the holders of shares of any series of Preferred Stock then outstanding to elect additional directors under specified circumstances, the Board of Directors of the Corporation shall be divided into three classes, with the term of office of the first class to expire at the first annual meeting of the stockholders following the initial classification of directors and until their successors are duly elected and qualified, the term of office of the second class to expire at the second annual meeting of the stockholders following the initial classification of directors and until their successors are duly elected and qualified, and the term of office of the third class to expire at the third annual meeting of the stockholders following the initial classification of directors and until their successors are duly elected and qualified. At each annual meeting of the stockholders, directors elected to succeed those directors whose terms expire, other than directors elected by the holders of any series of Preferred Stock, shall be elected for a term of office to expire at the third succeeding annual meeting of the stockholders after their election and until their successors are duly elected and qualified, and if authorized by a resolution of the Board of Directors, directors may be elected to fill any vacancy on the Board of Directors, regardless of how such vacancy was created.

D. The Chairman of the Board of Directors and any Vice Chairman appointed to act in the absence of the Chairman, if any, shall be elected by and from the Board of Directors. The Chairman shall preside at all meetings of the Board of Directors at which he or she is present and shall have such authority and perform such duties as may be prescribed by these Bylaws or from time to time be determined by the Board of Directors.

Section 2. Vacancies and Newly Created Directorships.

Subject to the rights of the holders of any series of Preferred Stock then outstanding, newly created directorships resulting from any increase in the authorized number of directors or any vacancies in the Board of Directors resulting from death, resignation, retirement, disqualification, removal from office or other cause shall, unless otherwise required by law, by the Restated Articles of Incorporation or by resolution of the Board of Directors, be filled only by a majority vote of the directors then in office even though less than a quorum, or by a sole remaining director, and not by the stockholders of the Corporation, and directors so chosen shall serve for a term expiring at the annual meeting of the stockholders at which the term of office of the class to which they have been chosen expires and until such director's successor shall have been duly elected and qualified. No decrease in the authorized number of directors shall shorten the term of any incumbent director. In the event of a vacancy in the Board of Directors, the remaining directors, except as otherwise provided by law, the Restated Articles of Incorporation or these Bylaws, may exercise the powers of the full Board of Directors until the vacancy is filled.

Section 3. Resignation and Removal.

Any director may resign at any time upon notice given in writing or by electronic transmission to the Corporation at its principal executive office or to the Chairman of the Board, Chief Executive Officer, President or Secretary. Such resignation shall be effective upon receipt unless it is specified to be effective at some other time or upon the happening of some other event. Subject to the rights of the holders of any series of Preferred Stock then outstanding, any director, or the entire Board of Directors, may be removed from office at any time only for cause and only by the affirmative vote of the holders of at least eighty percent (80%) of the voting power of all of the then outstanding shares of capital stock of the Corporation entitled to vote at an election of directors, voting together as a single class.

Section 4. Regular Meetings.

Regular meetings of the Board of Directors shall be held at such place or places, or the means of remote communications, if any, on such date or dates, and at such time or times as shall have been established by the Board of Directors and publicized among all directors. A notice of each regular meeting shall not be required.

Section 5. Special Meetings.

Special meetings of the Board of Directors may be called by the Chairman of the Board of Directors or the Chief Executive Officer, and shall be called by the Secretary if requested by a majority of the Whole Board, and shall be held at such place, or via the means of remote communications, if any, on such date, and at such time as the Secretary shall reasonably fix. Notice of the place, date, and time of each such special meeting shall be given to each director by whom it is not waived by mailing written notice not less than five (5) days before the meeting or orally, by telegraph, telex, cable, telecopy or electronic transmission given not less than twenty-four (24) hours before the meeting. Unless otherwise indicated in the notice thereof, any and all business may be transacted at a special meeting.

Section 6. Quorum.

At any meeting of the Board of Directors, a majority of the Whole Board shall constitute a quorum for all purposes. If a quorum shall fail to attend any meeting, a majority of those present may adjourn the meeting to another place, date, or time, without further notice or waiver thereof.

Section 7. Action by Consent.

Unless otherwise restricted by law or these Bylaws, any action required or permitted to be taken at any meeting of the Board of Directors may be taken without a meeting, if all members of the Board consent thereto in writing or by electronic transmission. Each such writing or electronic transmission shall be filed with the minutes of proceedings of the Board of Directors. Such filing shall be in paper

form if the minutes are maintained in paper form and shall be in electronic form if the minutes are maintained in electronic form.

Section 8. Action by Meeting.

Members of the Board of Directors or of any committee designated by the Board of Directors may participate in a meeting of the Board of Directors or such committee by any means of electronic or telephonic communications, videoconferencing, teleconferencing or other available technology permitted under the NRS (including, without limitation, a telephone conference or similar method of communication by which all individuals participating in the meeting can hear each other). If any conferencing means are utilized, the Corporation shall, to the extent required under the NRS, implement reasonable measures to (a) verify the identity of each person participating in the conference through such means as a director or member of the committee, as the case may be, and (b) provide the directors or members of the committee a reasonable opportunity to participate in the conference and to vote on matters submitted to the directors or members of the committee, including an opportunity to communicate, and to read or hear the proceedings of the conference in a substantially concurrent manner with such proceedings. Participation in a meeting pursuant to this Section 8 constitutes presence in person at the meeting.

Section 9. Conduct of Business.

At any meeting of the Board of Directors, business shall be transacted in such order and manner as the Board of Directors may from time to time determine and publicized among all directors, and all matters shall be determined by the vote of a majority of the directors present, except as otherwise provided herein, under the Restated Articles of Incorporation or required by law.

Section 10. Powers.

The Board of Directors may, except as otherwise required by law, exercise all such powers and do all such acts and things as may be exercised or done by the Corporation, including, without limiting the generality of the foregoing, the unqualified power:

(1) To declare distributions (including dividends) from time to time in accordance with law;

(2) To purchase or otherwise acquire any property, rights or privileges on such terms as it shall determine;

(3) To authorize the creation, making and issuance, in such form as it may determine, of written obligations of every kind, negotiable or non-negotiable, secured or unsecured, to borrow funds and guarantee obligations, and to do all things necessary in connection therewith;

(4) To remove any officer of the Corporation with or without cause, and from time to time to devolve the powers and duties of any officer upon any other person for the time being;

(5) To confer upon any officer of the Corporation the power to appoint, remove and suspend subordinate officers, employees and agents;

(6) To adopt from time to time such stock, option, stock purchase, bonus or other compensation plans for directors, officers, employees and agents of the Corporation and its subsidiaries;

(7) To adopt from time to time such insurance, retirement, and other benefit plans for directors, officers, employees and agents of the Corporation and its subsidiaries; and,

(8) To adopt from time to time regulations, not inconsistent with these Bylaws, for the management of the Corporation's business and affairs.

Section 11. Compensation of Directors.

Unless otherwise restricted by law, the Board of Directors shall have the authority to fix the compensation of the directors. The directors may be paid their expenses, if any, of attendance at each meeting of the Board of Directors and may be paid a fixed sum for attendance at each meeting of the Board of Directors or paid a stated salary or paid other compensation as director. No such payment shall preclude any director from serving the Corporation in any other capacity and receiving compensation therefor. Members of special or standing committees may receive compensation for attending committee meetings.

ARTICLE III - COMMITTEES

Section 1. Committees of the Board of Directors.

The Board of Directors may from time to time designate committees of the Board, with such lawfully delegable powers and duties as it thereby confers. For those committees, the Board of Directors may (i) elect a director or directors to serve as the member or members of such committees and may designate other directors as alternate members who may replace any absent or disqualified member of any such committee and (ii) may determine the procedural rules for any such committee's meeting and conducting of business. Any such committee, to the extent provided in the resolution of the Board of Directors, shall have and may exercise all the powers and authority of the Board of Directors in the management of the business and affairs of the Corporation to the fullest extent authorized by law. In the absence or disqualification of any member of any committee and any alternate member in his or her place, the member or members of the committee present at the meeting and not disqualified from voting, whether or not he or she or they constitute a quorum of such

committee, may by unanimous vote appoint another member of the Board of Directors to act in the place of the absent or disqualified member.

Section 2. Conduct of Business.

Each committee may determine the procedural rules for meeting and conducting its business and shall act in accordance therewith, except as otherwise determined by the Board of Directors, provided herein or required by law. Adequate provision shall be made for notice to members of all meetings; one-third (1/3) of the members of any committee shall constitute a quorum unless the committee shall consist of one (1) or two (2) members, in which event one (1) member shall constitute a quorum; and all matters shall be determined by a majority vote of the members present. Action may be taken by any committee without a meeting if all members thereof consent thereto in writing or by electronic transmission. Each such writing or electronic transmission shall be filed with the minutes of the proceedings of such committee. Such filing shall be in paper form if the minutes are maintained in paper form and shall be in electronic form if the minutes are maintained in electronic form.

ARTICLE IV - OFFICERS

Section 1. Enumeration.

The officers of the Corporation shall consist of a Chief Executive Officer, President, Treasurer, Secretary and such other officers as the Board of Directors or the Chief Executive Officer may determine, including, but not limited to, a Chief Financial Officer, one or more Vice Presidents, Assistant Treasurers and Assistant Secretaries. The salaries of officers elected by the Board of Directors shall be fixed from time to time by the Board of Directors or by such officers as may be designated by resolution of the Board of Directors.

Section 2. Election.

The Chief Executive Officer, President, Treasurer and the Secretary shall be elected annually by the Board of Directors at their first meeting following the immediately-preceding annual meeting of the stockholders. The Board of Directors or the Chief Executive Officer, may, from time to time, elect or appoint such other officers as it or he or she may determine, including, but not limited to, a Chief Financial Officer, one or more Vice Presidents, Assistant Treasurers and Assistant Secretaries.

Section 3. Qualification.

No officer needs be a director. Two or more offices may be held by any one person.

Section 4. Tenure and Removal.

Each officer elected or appointed by the Board of Directors shall hold office until the first meeting of the Board of Directors following the next annual meeting of the stockholders and until his or her successor is elected or appointed and qualified, unless he or she dies, resigns, is removed or

becomes disqualified or a shorter term is specified in the vote electing or appointing said officer. Each officer appointed by the Chief Executive Officer shall hold office until his or her successor is elected or appointed and qualified, unless he or she dies, resigns, is removed or becomes disqualified or a shorter term is specified by any agreement or other instrument appointing such officer. Any officer may resign by notice given in writing or by electronic transmission of his or her resignation to the Chief Executive Officer, the President, or the Secretary, or to the Board of Directors at a meeting of the Board. Such resignation shall be effective upon receipt unless it is specified to be effective at some other time or upon the happening of some other event. Any officer elected or appointed by the Board of Directors may be removed from office with or without cause only by vote of a majority of the directors then in office even though less than a quorum or by a sole remaining director. Any officer appointed by the Chief Executive Officer may be removed with or without cause by the Chief Executive Officer, or by vote of a majority of the directors then in office even though less than a quorum, or by a sole remaining director.

Section 5. Chief Executive Officer.

The Chief Executive Officer shall be the chief executive officer of the Corporation and shall, subject to the direction of the Board of Directors, have the responsibility for the general management and control of the business and affairs of the Corporation. Unless otherwise provided by resolution of the Board of Directors, in the absence of the Chairman of the Board, the Chief Executive Officer shall preside at all meetings of the stockholders and, if the Chief Executive Officer is a director, at all meetings of the Board of Directors. The Chief Executive Officer shall have general supervision and direction of all of the other officers, employees and agents of the Corporation, other than the Chairman of the Board or any Vice Chairman. The Chief Executive Officer shall have the power and authority to determine the duties of all officers, employees and agents of the Corporation and determine the compensation of any officers (except those whose compensation is established by the Board of Directors), employees and agents. The Chief Executive Officer is expressly authorized to sign all stock certificates, contracts and other instruments for and on behalf of the Corporation unless otherwise directed by the Board of Directors.

Section 6. President.

Except for meetings at which the Chief Executive Officer or the Chairman of the Board, if any, presides, the President shall, if present, preside at all meetings of the stockholders, and if a director, at all meetings of the Board of Directors. The President shall, subject to the control and direction of the Chief Executive Officer and the Board of Directors, have and perform such powers and duties as may be prescribed by these Bylaws or from time to time be determined by the Chief Executive Officer or the Board of Directors. The President shall have power to sign all stock certificates, contracts and other instruments for and on behalf of the Corporation to the extent authorized by the Board of Directors. In the absence of a Chief Executive Officer, the President shall be the chief executive officer of the Corporation and shall, subject to the direction of the Board of Directors, have responsibility for the general management and control of the business and affairs of the Corporation, have general supervision and direction of all of the officers, employees and agents of the Corporation, other than the Chairman of the Board or any Vice

Chairman, and have all other powers and duties of the Chief Executive Officer as set forth in this Article IV.

Section 7. Vice Presidents.

The Vice Presidents, if any, in the order of their election (if otherwise directed by the Board of Directors or the Chief Executive Officer, in such other order as the Board of Directors or the Chief Executive Officer may determine), shall have the powers and duties of the President as set forth in this Article IV whenever the President is absent or unable to act. The Vice Presidents, if any, shall also have such other powers and duties as may from time to time be determined by the Board of Directors or the Chief Executive Officer.

Section 8. Chief Financial Officer, Treasurer and Assistant Treasurers.

The Chief Financial Officer shall, subject to the control and direction of the Board of Directors and the Chief Executive Officer, be the chief financial officer of the Corporation and shall have and perform such powers and duties as may be prescribed in these Bylaws or be determined from time to time by the Board of Directors and the Chief Executive Officer. All property of the Corporation in the custody of the Chief Financial Officer shall be subject at all times to the inspection and control of the Board of Directors and the Chief Executive Officer. The Chief Financial Officer shall have the responsibility for maintaining the financial records of the Corporation. The Chief Financial Officer shall make such disbursements of the funds of the Corporation to the extent authorized by law, the Restated Articles of Incorporation and the Board of Directors and shall render from time to time an account of all such transactions and of the financial condition of the Corporation whenever requested by the Board of Directors or the Chief Executive Officer. Unless the Board of Directors has designated another person as the Corporation's Treasurer, the Chief Financial Officer shall also be the Treasurer. Unless otherwise directed by the Board of Directors, the Treasurer (if different than the Chief Financial Officer) and each Assistant Treasurer (whenever the Treasurer is absent or unable to act and in such other order as the Board of Directors or the Chief Executive Officer may determine), if any, shall have and perform the powers and duties of the Chief Financial Officer whenever the Chief Financial Officer is absent or unable to act, and may at any time exercise such of the powers of the Chief Financial Officer.

Section 9. Secretaries.

Unless otherwise directed by the Board of Directors, the Secretary and, in his or her absence, an Assistant Secretary, shall attend all meetings of the directors and the stockholders and shall record all votes of the Board of Directors and stockholders and produce minutes of the proceedings at such meetings. The Secretary and, in his or her absence, an Assistant Secretary, shall notify the directors and the stockholders of their meetings, and shall also have such other powers and duties as may from time to time be determined by the Board of Directors. In the absence of the Secretary and any Assistant Secretary at any meeting of directors or stockholders, a temporary secretary may be appointed by the chairman of that meeting.

Section 10. Action with Respect to Securities of Other Corporations.

Unless otherwise directed by the Board of Directors, the Chief Executive Officer or the President is expressly authorized to (i) vote for and on behalf of the Corporation, in person or by proxy, at any meeting of the stockholders of any other corporation, in which this Corporation holds securities and (ii) exercise any and all other rights and powers, which this Corporation possesses by reason of its ownership of securities in such other corporation, for and on behalf of this Corporation, in person or by proxy.

ARTICLE V - STOCK

Section 1. Certificated and Uncertificated Stock.

(a) The shares of the Corporation's capital stock may be certificated or uncertificated, as provided under the NRS, and shall be entered in the books of the Corporation and registered as they are issued. Any certificates representing shares of stock shall be in such form as the Board of Directors shall prescribe and shall certify the number and class and series of the shares of capital stock of the Corporation owned by the stockholder. Any certificates issued to a stockholder of the Corporation shall bear the name of the Corporation and shall be signed by the Chairman of the Board of Directors, or the President or a Vice President, and by the Treasurer or an Assistant Treasurer, or the Secretary or an Assistant Secretary. Any or all of the signatures on the certificate may be by facsimile. In the event that any officer who has signed, or whose facsimile signatures has been used on any certificate or certificates for stock cease to be an officer because of death, resignation or other reason, before the certificate or certificates for stock have been delivered by the Corporation, the certificate or certificates may nevertheless be adopted by the Corporation and be issued and delivered as though the person who signed the certificate or certificates, or whose facsimile signature has been used thereon, had not ceased to be an officer of the Corporation.

(b) Within a reasonable time after the issuance or transfer of uncertificated shares, the Corporation shall send to the registered owner thereof a written statement certifying the number and class (and the designation of the series, if any) of the shares owned by such stockholder in the Corporation and any restrictions on the transfer or registration of such shares imposed by the Restated Articles of Incorporation, these Bylaws, any agreement among stockholders or any agreement between the stockholders and the Corporation, and, at least annually thereafter, the Corporation shall provide to such stockholders of record holding uncertificated shares, a written statement confirming the information contained in such written statement previously sent. Except as otherwise expressly provided by the NRS, the rights and obligations of the stockholders of the Corporation shall be identical whether or not their shares of stock are represented by certificates.

Section 2. Transfers of Stock.

Transfers of shares of capital stock of the Corporation shall be made only (i) by entering upon the stock-transfer books of the Corporation or (ii) by transfer agents designated to transfer shares of capital stock of the Corporation. Except where a certificate is issued in accordance with Section 4 of this Article V or in the case of uncertificated shares, an outstanding certificate for the number of shares involved shall be surrendered for cancellation before a new certificate is issued therefor.

Section 3. Record Date.

With respect to notice (i) of any meeting of the stockholders, or (ii) for the stockholders to receive payment of any dividend or other distribution or allotment of any rights or (iii) for the stockholders to exercise any rights in respect of any change, conversion or exchange of the shares of the Corporation's capital stock or (iv) for any other lawful purpose, the Board of Directors may fix a record date, provided, however, that such record date (a) shall not precede the date on which the resolution fixing the record date is adopted and (b) shall not be more than sixty (60) nor less than ten (10) days before the date of any meeting of the stockholders, nor more than sixty (60) days prior to the time for such other action as hereinbefore described (receiving payments and exercising rights by the stockholders). If the Board of Directors so fixes a date, such date shall also be the record date for determining the stockholders of record entitled to vote at such meeting, unless the Board of Directors at the time it fixes such record date directs that a later date on or before the date of the meeting shall be the date for making such determination. If no record date is fixed by the Board of Directors, (i) the record date for determining stockholders of record entitled to notice of and to vote at a meeting of the stockholders shall be at the close of business on the day immediately preceding the day on which notice is given or, if notice is waived, at the close of business on the day immediately preceding the day on which the meeting is held, and, (ii) the record date, for determining stockholders of record entitled to receive payment of any dividend or other distribution or allotment of rights or to exercise any rights of change, conversion or exchange of the shares of the Corporation's capital stock or for any other purpose, shall be at the close of business on the day on which the Board of Directors adopts a resolution relating thereto.

A determination of stockholders of record entitled to notice of or to vote at a meeting of the stockholders shall apply to any adjournment of the meeting; provided, however, that the Board of Directors may fix a new record date for determination of the stockholders of record entitled to vote at the adjourned meeting, and in such case shall also fix as the record date for the stockholders of record entitled to notice of such adjourned meeting the same or an earlier date as that fixed for determination of the stockholders of record entitled to vote in accordance with the foregoing provisions of this Section 3 at the adjourned meeting.

Section 4. Lost, Stolen or Destroyed Certificates.

In the event of the loss, theft or destruction of any certificate of shares of capital stock of the Corporation, the Corporation may issue a new certificate of shares of capital stock or uncertificated shares in place of any certificate previously issued by the Corporation pursuant to such regulations as

the Board of Directors may establish concerning proof of such loss, theft or destruction and pledging of a satisfactory bond or bonds of indemnity.

Section 5. Regulations.

The issue, transfer, conversion and registration of certificates of the shares of capital stock shall be governed by these Bylaws and such other regulations as the Board of Directors may establish.

ARTICLE VI - NOTICES

Section 1. Notices.

If mailed, notice to the stockholders shall be deemed given when deposited in the mail, postage prepaid, directed to the stockholder at such stockholder's address as it appears on the records of the Corporation. Without limiting the manner by which notice otherwise may be given effectively to the stockholders as permitted by law, any notice to the stockholders may be given by electronic transmission in the manner permitted under NRS 78.370 and NRS Chapter 75.

Section 2. Waiver of Notice.

A written waiver of any notice, signed by a stockholder or director, or waiver by electronic transmission by such person or entity, whether before or after the time of the event for which notice is to be given, shall be deemed equivalent to the notice required to be given to such person or entity. Neither the business nor the purpose of any meeting need be specified in such a waiver. Attendance at any meeting shall constitute waiver of notice, except for attendance for the express purpose of objecting, at the beginning of the meeting, to the election or the transaction of business at such meeting because the meeting is not lawfully called or convened.

ARTICLE VII -INDEMNIFICATION OF DIRECTORS AND OFFICERS

Section 1. Right to Indemnification.

Each person who was or is made a party or is threatened to be made a party to or is otherwise involved (including, without limitation, as a witness) in any action, suit or proceeding, whether civil, criminal, administrative or investigative, by reason of the fact that he is or was a director or an officer of the Corporation or is or was serving at the request of the Corporation as a director, officer, or trustee of another corporation, or of a partnership, joint venture, trust or other enterprise, including service with respect to an employee benefit plan (hereinafter an "Indemnitee"), whether the basis of such action, suit or proceeding is alleged action in an official capacity as a director, officer or trustee or in any other capacity while serving as a director, officer or trustee, shall be indemnified and held harmless by the Corporation to the fullest extent permitted by law, as the same exists or may hereafter be amended (but, in the case of any such amendment, only to the extent that such amendment permits

the Corporation to provide broader indemnification rights than such law permitted the Corporation to provide prior to such amendment), against all expense, liability and loss (including attorneys' fees, judgments, fines, ERISA excise taxes or penalties and amounts paid in settlement) reasonably incurred or suffered by such Indemnitee in connection therewith; provided, however, that, except as provided in Section 3 of this Article VII with respect to proceedings to enforce rights to indemnification or an advancement of expenses or as otherwise required by law, the Corporation shall not be required to indemnify or advance expenses to any such Indemnitee in connection with an action, suit or proceeding (or part thereof) initiated by such Indemnitee unless such action, suit or proceeding (or part thereof) was authorized by the Board of Directors of the Corporation.

Section 2. Right to Advancement of Expenses.

In addition to the right to indemnification conferred in Section 1 of this Article, an Indemnitee shall also have the right to be paid by the Corporation the expenses (including attorney's fees) incurred in defending any such proceeding in advance of its final disposition; provided, however, that, if the NRS then requires, an advancement of expenses incurred by an Indemnitee in his capacity as a director or officer (and not in any other capacity in which service was or is rendered by such Indemnitee, including, without limitation, service to an employee benefit plan) shall be made only upon delivery to the Corporation of an undertaking, by or on behalf of such Indemnitee, to repay all amounts so advanced if it shall ultimately be determined by final judicial decision from which there is no further right to appeal that such Indemnitee is not entitled to be indemnified for such expenses under this Section 2.

Section 3. Right of Indemnitees to Bring Suit.

If a claim under Section 1 or 2 of this Article VII is not paid in full by the Corporation within sixty (60) days after a written claim has been received by the Corporation, except in the case of a claim for an advancement of expenses, in which case the applicable period shall be twenty (20) days, the Indemnitee may at any time thereafter bring suit against the Corporation to recover the unpaid amount of the claim. If successful in whole or in part in any such suit, or in a suit brought by the Corporation to recover an advancement of expenses pursuant to the terms of an undertaking, the Indemnitee shall also be entitled to be paid the expenses of prosecuting or defending such suit. In any suit brought by the Indemnitee to enforce a right to indemnification hereunder (but not in a suit brought by the Indemnitee to enforce a right to an advancement of expenses) it shall be a defense that the Indemnitee has not met any applicable standard for indemnification set forth in the NRS. In any suit brought by the Corporation to recover an advancement of expenses pursuant to the terms of an undertaking, the Corporation shall be entitled to recover such expenses upon a final adjudication that, the Indemnitee has not met any applicable standard for indemnification set forth in the NRS. Neither the failure of the Corporation (including its directors who are not parties to such action, a committee of such directors, independent legal counsel, or its stockholders) to have made a determination prior to the commencement of such suit that indemnification of the Indemnitee is proper in the circumstances because the Indemnitee has met the applicable standard of conduct set forth in the NRS, nor an actual determination by the Corporation (including its directors who are not parties to such action, a committee of such directors, independent legal counsel, or its stockholders) that the Indemnitee has not met such applicable standard of conduct, shall create a presumption that the

Indemnitee has not met the applicable standard of conduct or, in the case of such a suit brought by the Indemnitee, be a defense to such suit. In any suit brought by the Indemnitee to enforce a right to indemnification or to an advancement of expenses hereunder, or brought by the Corporation to recover an advancement of expenses pursuant to the terms of an undertaking, the burden of proving that the Indemnitee is not entitled to be indemnified, or to such advancement of expenses, under this Article VII or otherwise shall be on the Corporation.

Section 4. Non-Exclusivity of Rights.

The rights to indemnification and to the advancement of expenses conferred in this Article IV shall not be exclusive of any other right which any person may have or hereafter acquire under any statute, the Restated Certificate of Incorporation as amended from time to time, these Bylaws, any agreement, any vote of stockholders or directors as permitted by the NRS or otherwise.

Section 5. Insurance.

The Corporation may maintain insurance, at its expense, to protect itself and any director, officer, employee or agent of (i) the Corporation or (ii) another corporation, partnership, joint venture, trust or other enterprise, against any expense, liability or loss, whether or not the Corporation would have the power to indemnify such person against such expense, liability or loss under the NRS.

Section 6. Indemnity Agreements.

The Corporation may enter into indemnity agreements from time to time (i) with the persons who are members of its Board of Directors, (ii) with such officers, employees and agents of the Corporation and (iii) with such officers, directors, employees and agents of subsidiaries or affiliates of the Corporation. Such indemnity agreements may provide in substance that the Corporation will indemnify such persons to the full extent as contemplated by this Article VII or permitted by law and the Restated Articles of Incorporation, and may include any other substantive or procedural provisions regarding indemnification as are not inconsistent with the laws of the State of Nevada. The provisions of such indemnity agreements shall prevail to the extent that they limit or condition or differ from the provisions of this Article VII.

Section 7. Indemnification of Employees and Agents of the Corporation.

The Corporation may, to the extent authorized from time to time by the Board of Directors, grant rights to indemnification and to the advancement of expenses to any employee or agent of the Corporation to the fullest extent of the provisions of this Article VII with respect to the indemnification and advancement of expenses of directors and officers of the Corporation.

Section 8. Nature of Rights.

The rights conferred upon Indemnitees in this Article VII shall be contract rights and such rights shall continue as to an Indemnitee who has ceased to be a director, officer, employee, agent or trustee and shall inure to the benefit of the Indemnitee's heirs, executors and administrators.

Any amendment, alteration or repeal of this Article VII that adversely affects any right of an Indemnitee or its successors shall be prospective only and shall not limit, eliminate, or impair any such right with respect to any action, suit or proceeding involving any occurrence or alleged occurrence of any action or omission to act that took place prior to such amendment, alteration or repeal.

Section 9. Severability.

If any word, clause, provision or provisions of this Article VII shall be held to be invalid, illegal or unenforceable for any reason whatsoever: (i) the validity, legality and enforceability of the remaining provisions of this Article VII (including, without limitation, each portion of any section of this Article containing any such provision held to be invalid, illegal or unenforceable, that is not itself held to be invalid, illegal or unenforceable) shall not in any way be affected or impaired thereby; and (ii) to the fullest extent possible, the provisions of this Article VII (including, without limitation, each such portion of any section of this Article VII containing any such provision held to be invalid, illegal or unenforceable) shall be construed so as to give effect to the intent manifested by the provision held invalid, illegal or unenforceable.

ARTICLE VIII - CERTAIN TRANSACTIONS

Section 1. Transactions with Interested Parties.

No contract or transaction between the Corporation and one or more of its directors or officers, or between the Corporation and any other corporation, partnership, association, or other organization in which one or more of its directors or officers are directors or officers, or have a financial interest, shall be void or voidable (i) solely for this reason, or (ii) solely because the director or officer is present at or participates in the meeting of the Board or committee thereof, which authorizes the contract or transaction, or (iii) solely because the votes of such director or officer are counted for such purpose, if:

(a) The material facts as to his or her relationship or interest and as to the contract or transaction are disclosed to or are known to the Board of Directors or the committee, and the Board or committee in good faith authorizes the contract or transaction by the affirmative votes of a majority of the disinterested directors, even though the disinterested directors be less than a quorum; or

(b) The material facts as to his or her relationship or interest and as to the contract or transaction are disclosed or are known to the stockholders entitled to vote thereon, and the contract or transaction is specifically approved in good faith by vote of the stockholders; or

(c) The contract or transaction is fair as to the Corporation as of the time it is authorized, approved or ratified, by the Board of Directors, a committee thereof, or the stockholders.

Section 2. Quorum.

Interested directors or stockholders, as applicable, may be counted in determining the presence of a quorum (i) at the meeting of the Board of Directors or of a committee which authorizes the contract or transaction, or (ii) at the meeting of the stockholders which approves the contract or transaction.

ARTICLE IX - MISCELLANEOUS

Section 1. Facsimile Signatures.

In addition to the provisions specifically authorizing use of facsimile signatures in these Bylaws, facsimile signatures of any officer or officers of the Corporation may be used whenever and as authorized by the Board of Directors or a committee thereof.

Section 2. Corporate Seal.

The Board of Directors may provide a suitable seal, containing the name of the Corporation, which seal shall be in the charge of the Secretary. If and when so directed by the Board of Directors or a committee thereof, duplicates of the seal may be kept and used by the Treasurer or by an Assistant Secretary or Assistant Treasurer.

Section 3. Reliance upon Books, Reports and Records.

Without limitation of any provision of the NRS (including NRS 78.138), each director of the Corporation, each member of any committee designated by the Board of Directors, and each officer of the Corporation shall, in the performance of his or her duties, be entitled to rely, and be fully protected in relying upon the books of account or other records of the Corporation and upon such information, opinions, reports or statements presented to the Corporation by any of its agents, officers or employees, or committees of the Board of Directors, or by any other person as to matters which such director, committee member or officer reasonably believes are within such other person's professional or expert competence, but a director or officer is not entitled to rely on such information, opinions, reports, books of account or statements if the director or officer has knowledge concerning the matter in question that would cause reliance thereon to be unwarranted.

Section 4. Fiscal Year.

Except as otherwise determined by the Board of Directors from time to time, the fiscal year of the Corporation shall end on the last day of December of that year.

Section 5. Time Periods.

In applying any provision of these Bylaws which requires that an act be done or not be done during a period of a specified number of days prior and/or following an event, calendar days shall be used, the day of the doing of the act shall be excluded, and the day of the event shall be included.

Section 6. Pronouns.

Whenever the context may require, any pronouns used in these Bylaws shall include the corresponding masculine, feminine or neuter forms.

Section 7. Interpretation.

The Board of Directors shall have the power to interpret all of the terms and provisions of these Bylaws, which interpretation shall be conclusive.

ARTICLE XI - AMENDMENTS

In furtherance and not in limitation of the powers conferred by law and the Restated Articles of Incorporation, the Board of Directors is expressly authorized to adopt, amend and repeal these Bylaws, but subject to the power of the holders of the shares of capital stock of the Corporation to adopt, amend or repeal these Bylaws; provided, however, that, with respect to the power of such holders, notwithstanding any other provision of these Bylaws or any provision of the NRS which might otherwise permit a lesser vote or no vote, and in addition to the affirmative vote of the holders of any class or series of the shares of capital stock of the Corporation required by law, the Restated Articles of Incorporation, these Bylaws or any Preferred Stock, the affirmative vote of the holders of at least eighty percent (80%) of the voting power of all of the then outstanding shares of capital stock of the Corporation entitled to vote generally in the election of directors, voting together as a single class, shall be required to adopt, amend or repeal any provision of these Bylaws.

GESCHÄFTSFÜHRER-DIENSTVERTRAG

zwischen der

Pieris Pharmaceuticals GmbH,
Lise-Meitner-Str. 30, 85354 Freising,

Deutschland, (die „**Gesellschaft**"), hier vertreten durch ihren Gesellschafter

Pieris Pharmaceuticals, Inc.

(der „**Gesellschafter**"), dieser vertreten durch den Linksunterzeichner

Stephen S. Yoder, J.D.

einerseits, und

Dr. Hitto Kaufmann
Stuttgarter Strasse 77
70469 Stuttgart

(der „**Geschäftsführer**") andererseits.

Präambel

Durch Beschluss der Gesellschafterversammlung vom 19. Februar 2019 wurde Herr Dr. Hitto Kaufmann zum Geschäftsführer der Gesellschaft bestellt. Aus diesem Grunde vereinbaren die Parteien mit Wirkung zum 1. Oktober 2019 oder früher (der Geschäftsführer- „**Stichtag**") folgenden Dienstvertrag:

1 Aufgaben und Pflichten

1.1 Der Geschäftsführer ist Geschäftsführer der Gesellschaft mit dem Titel „Senior Vice President, Chief Scientific Officer (CSO)". Er vertritt die Gesellschaft nach Maßgabe des Gesellschaftsvertrages und der Bestimmungen der zuständigen Gesellschaftsorgane.

1.2 Der Geschäftsführer führt seine Aufgaben nach Maßgabe der Gesetze,

MANAGING DIRECTOR SERVICE AGREEMENT

between

Pieris Pharmaceuticals GmbH,
Lise-Meitner-Str. 30, 85354 Freising,

Germany, (the „**Company**"), here represented by its shareholder

Pieris Pharmaceuticals, Inc.

(the „**Shareholder**"), here acting through the left signer

Stephen S. Yoder, J.D.

on one side, and

Dr. Hitto Kaufmann
Stuttgarter Strasse 77
70469 Stuttgart

(the „**Managing Director**") on the other side.

Preamble

By resolution of the shareholder´s meeting dated February 19th, 2019 Mr. Dr. Hitto Kaufmann was appointed Managing Director.
On this basis, the parties shall enter as of October 1, 2019 or earlier (the „**Effective Date**") into this Managing Director Service Agreement:

1 Position and Scope of Duties

1.1 The Managing Director shall be a managing director of the Company with the title of „Senior Vice President, Chief Scientific Officer (CSO)". He acts on behalf of the Company in accordance with both the Company's Articles and the directions of the competent Company's bodies.

1.2 The Managing Director shall perform his duties in accordance with the law,

des Gesellschaftsvertrages, einer etwaigen Geschäftsordnung und der Bestimmungen der zuständigen Gesellschaftsorgane, im Übrigen selbständig und eigenverantwortlich.

the Articles of the Company, any management rules, and the directions of the competent Company's bodies, but otherwise independently and on his own authority.

1.3 Die Gesellschaft kann jederzeit weitere Geschäftsführer bestellen, Geschäftsführer abberufen, die Vertretungs- oder Geschäftsführungsbefugnisse aller oder einzelner Geschäftsführer ändern oder die interne Geschäftsverteilung unter den Geschäftsführern neu ordnen.

1.3 The Company may at any time appoint additional managing directors, remove managing directors from Office, change both the power-of-attorney and the power-of-management of all or of individual managing directors, or re-organize the infernal allocation of responsibilities among the managing directors.

1.4 Der Geschäftsführer übernimmt auf Wunsch der Gesellschaft ohne weitere Vergütung auch Positionen oder Ämter bei mit der Gesellschaft verbundenen Unternehmen (§15 AktG). Ebenso übernimmt der Geschäftsführer Positionen oder Ämter bei Verbänden, Berufsvereinigungen oder sonstigen Organisationen, in denen die Gesellschaft oder ein verbundenes Unternehmen Mitglied ist. Ihm von dritter Seite diesbezüglich gewährte Vergütungen oder Aufwandsentschädigungen führt der Geschäftsführer an die Gesellschaft ab. Auf Wunsch der Gesellschaft legt der Geschäftsführer im Interesse der Gesellschaft oder verbundener Unternehmen übernommene Positionen oder Ämter nieder und setzt sich nach besten Kräften dafür ein, dass von der Gesellschaft benannte Nachfolger in die Positionen oder Ämter nachrücken.

1.4 The Managing Director shall, upon the Company's request, without any additional remuneration, also accept positions or Offices in companies affiliated with the Company (Section 15 Stock Companies Act). In the same way, the Managing Director shall also accept positions or offices in associations and professional or other organizations of which the Company or an affiliated Company is a member. The Managing Director shall transfer to the Company any remuneration or allowances he receives from third parties in this respect. Upon the Company's request, the Managing Director shall resign from any position or office accepted in the interests of the Company or an affiliated Company and he shall do his utmost to ensure that the person nominated by the Company shall succeed him in the position or office.

2 Umfang und Ort der Dienste

2 Scope and Place of Service

2.1 Der Geschäftsführer stellt seine ganze Arbeitskraft und all sein Wissen und Können in den Dienst der Gesellschaft. In der Bestimmung seiner Tätigkeitszeiten ist der Geschäftsführer im Rahmen der betrieblichen Erfordernisse frei.

2.1 The Managing Director shall devote all his working capacity, knowledge and skills into the services of the Company. The Managing Director is free to determine his working hours within the framework of business requirements.

2.2 Dienstort des Geschäftsführers ist der jeweilige Sitz der Gesellschaft.

2.2 The Managing Director's place of Service is the respective seat of the Company.

3	**Neben- und andere Tätigkeiten**	**3**	**Side and other Activities**
3.1	Die entgeltliche oder unentgeltliche Übernahme von Nebentätigkeiten, Ehrenämtern oder Aufsichtsrats-, Beirats- oder ähnlichen Mandaten sowie die mittelbare oder unmittelbare Beteiligung an anderen Unternehmen ist dem Geschäftsführer nur mit vorheriger, schriftlicher Zustimmung der zuständigen Gesellschaftsorgane gestattet. Die Zustimmung wird erteilt, wenn die Tätigkeits-, Amts- oder Mandatsübernahme oder die Beteiligung an anderen Unternehmen weder die Arbeitskraft oder Arbeitszeit des Geschäftsführers noch berechtigte Interessen der Gesellschaft beeinträchtigt. Die Zustimmung kann widerrufen werden, wenn die Voraussetzungen für ihre Erteilung nicht mehr vorliegen. Bei der Ausübung des Widerrufsrechts sind die berechtigten Interessen des Geschäftsführers zu berücksichtigen. Aktienbesitz des Geschäftsführers von weniger als 1 % des Grundkapitals börsennotierter Gesellschaften bedarf nicht der Zustimmung der Gesellschaft.	3.1	The acceptance, for or without compensation, of any side activity or any honorary duty or office in supervisory or advisory boards or similar office as well as the direct or indirect participation in other companies will require the prior written consent of the competent Company's bodies. The consent shall be granted if the acceptance of an activity or office or the participation in other companies affects neither the Managing Director's working capacity and time nor the Company's legitimate interests. The consent may be revoked if the conditions for the granting of the consent are no longer fulfilled. When exercising the right of revocation, the Managing Director's legitimate interests shall be taken into consideration. Shareholdings of less than 1% of the share capital of publicly traded companies held by the Managing Director do not require the Company's consent.
3.2	Wissenschaftliche und literarische Tätigkeit ist zulässig, sofern sie weder die Arbeitskraft oder -zeit des Geschäftsführers beeinträchtigt noch vertrauliche Informationen der Gesellschaft oder eines mit ihr verbundenen Unternehmens der Allgemeinheit zugänglich macht. Der Geschäftsführer wird die zuständigen Gesellschaftsorgane vorher über wissenschaftliche und literarische Tätigkeiten informieren. Für Veröffentlichungen und Vorträge, die die Interessen der Gesellschaft oder eines mit ihr verbundenen Unternehmens berühren, ist außerdem die vorherige, schriftliche Zustimmung der zuständigen Gesellschaftsorgane einzuholen. Die schriftliche Genehmigung gilt hiermit als erteilt für die Tätigkeiten als Member of the Executive Committee of the European Society of Animal Cell Culture (ESACT) sowie als Member of the Scientific Advisory Board of IBET.	3.2	Academic and literary work is permitted, if it does neither adversely affect the working capacity and time of the Managing Director nor make confidential information of the Company or any of its affiliated companies available to the public. The Managing Director shall inform the competent Company's bodies about such academic and literary work in advance. Publications and lectures affecting the interests of the Company or any of its affiliated companies require also the prior written approval of the competent Company's bodies. The written consent is hereby given for the work as member of the Executive Committee of the European Society of Animal Cell Culture (ESACT) as well as the role of Member of the Scientific Advisory Board of IBET.

4 Vergütung

4.1 Der Geschäftsführer erhält ein jährliches Festgehalt in Höhe von **EUR 290.000 brutto** (das „**Festgehalt**"), das in zwölf gleich hohen Raten am Ende eines jeden Kalendermonats zahlbar ist. Erfolgt der Ein- oder Austritt des Geschäftsführers in/aus diesen/diesem Geschäftsführerdienstvertrag unterjährig, so erfolgt die Zahlung des jährlichen Festgehalts auf *pro rata temporis* Basis.

Mit dem Festgehalt sind auch außerhalb üblicher Dienstzeiten erbrachte Dienste des Geschäftsführers abgegolten.

4.2 Bei Erfüllung von jährlich durch die Gesellschaft bzw. durch die zuständigen Gesellschaftsorgane im Voraus jeweils neu festzusetzenden Zielvorgaben erhält der Geschäftsführer zusätzlich zu dem Festgehalt nach Ziffer 4.1 einen jährlichen Bonus.

Die Bonuszahlung hängt in ihrem Entstehen und ihrer Höhe davon ab, dass bestimmte Ziele durch den Geschäftsführer und die Gesellschaft erreicht werden.

Der jährliche Bonus kann maximal 40% des (jährlichen) Festgehalts betragen, wenn die Zielvorgaben zu 100% vom Geschäftsführer und der Gesellschaft erreicht werden. Werden die Zielvorgaben durch den Geschäftsführer und die Gesellschaft nicht vollständig, d.h. nicht zu 100%, erreicht, wird der jährliche Bonus proportional im Verhältnis zur Zielerreichung gewährt.

Im Eintritts- und Austrittsjahr sowie für Zeiten, in denen aus sonstigen Gründen kein Anspruch auf die Vergütung gemäß Ziffer 4.1 dieses Geschäftsführerdienstvertrages besteht, reduzieren sich die zu erreichenden Ziele, die darauf entfallenden Bonus-Teilbeträge und die Höhe des vollen Jahreszielbonus (100%) jeweils um

4 Remuneration

4.1 The Managing Director shall receive an annual fixed salary in the **gross** amount of **EUR 290,000** (the „**Base Salary**"), payable in twelve equal installments at the end of each calendar month.
If the Managing Director enters or leaves this Managing Director Service Agreement during the year, the annual fixed salary is paid on *pro rata temporis* basis.

The Base Salary also compensates for any activities of the Managing Director outside the usual service hours.

4.2 In the instance of achievement of targets to be determined each year in advance by the Company or respectively by the competent Company's bodies, the Managing Director is entitled to an annual bonus in addition to his Base Salary pursuant to clause 4.1.
The bonus payment is subject to the achievement of certain targets by the managing director and the Company in respect of its existence and amount.

The annual bonus can amount up to a maximum of 40% of the (annual) Base Salary if the Managing Director and the company achieve the targets at 100%. If the Managing Director and the Company do not fully achieve the targets, i.e. below 100%, the annual bonus is proportionally granted to the achievement of targets.

In the year of entry and the year of exit and for those times during which, for other reasons, no entitlement to salary exists as per clause 4.1 of this service agreement the to be achieved targets, the partial bonus amounts that relate to it and the amount of the full annual target bonus (100%) are each reduced by 1/12 for each full month of nonexistence of this service agreement and entitlement to salary respectively

1/12 für jeden vollen Monat des Nichtbestehens des Geschäftsführerdienstverhältnisses bzw. des Vergütungsanspruchs gemäß Ziffer 4.1 dieses Geschäftsführerdienstvertrags. Teile eines Monats werden anteilig berechnet. Die so ermittelten Bonus-Beträge werden nach dem Annual Review des Geschäftsführers bestimmt und ausbezahlt, spätestens jedoch bis Ende März des auf das jeweilige Geschäftsjahr folgenden Jahres.

as per clause 4.1 of this service agreement. Parts of a month are calculated proportionally. Such bonus amounts shall be determined and paid out after the Managing Director's Annual Review, however, no later than the end of March of the year following the respective business year.

4.3 Der Geschäftsführer kann berechtigt sein, an dem Optionsprogramm der Pieris Pharmaceuticals, Inc. teilzunehmen. Über den Abschluss einer solchen Vereinbarung entscheiden allein die Pieris Pharmaceuticals, Inc. und der Geschäftsführer. Die Voraussetzungen und der Umfang der Teilnahme bestimmen sich allein nach Maßgabe einer solchen separaten Vereinbarung. Es gibt keine Ansprüche des Geschäftsführers gegen die Gesellschaft aus dem Optionsprogramm.

4.3 The Managing Director may be eligible to participate in the option pool of Pieris Pharmaceuticals, Inc.
Solely the Pieris Pharmaceuticals, Inc. and the Managing Director decide on the conclusion of such an agreement. The preconditions and scope of participation shall be determined solely in accordance with such separate agreement. There are no entitlements of the Managing Director against the Company based on the option pool.

4.4 Die Gesellschaft zahlt dem Geschäftsführer gegen Nachweis einen Wohnzuschuss in Höhe von maximal EUR 1.200 (netto) monatlich für den Zeitraum von insgesamt 9 Monaten für eine Wohnung im Raum München, München-Land, Erding oder Freising. Die steuerrechtliche und sozial-versicherungsrechtliche Behandlung wird nach Maßgabe der einschlägigen gesetzlichen Vorschriften erfolgen. Die Gesellschaft wird einen Relocation Service beauftragen, die den Geschäftsführer bei der Suche nach einer entsprechenden Wohnung unterstützen wird.

4.4 The Company shall pay to the Managing Director a housing allowance of a maximum of EUR 1,200 (net) per month for a total period of 9 months for an apartment in the area of Munich, the district of Munich, Erding or Freising upon the presentation of receipts. The tax and social security treatment will be dealt in accordance with the applicable statutory provisions. The Company shall contract a relocation agency that will assist the Managing Director with the search for such apartment.

4.5 Zusätzlich wird die Gesellschaft dem Geschäftsführer für die Dauer des Vertrages eine Bahncard First 100 zur Verfügung stellen, die der Geschäftsführer auch für private Zwecke verwenden darf. Die steuerrechtliche und sozialversicherungsrechtliche

4.5 In addition, for the duration of this contract, the Company will provide the Managing Director with a Bahncard First 100, which the Managing Director is also allowed to use for private purposes. The tax and social security treatment will be dealt in accordance with applicable statutory provisions.

Behandlung wird nach Maßgabe der einschlägigen gesetzlichen Vorschriften erfolgen.

4.6 Die Vergütungsansprüche des Geschäftsführers sind nicht abtretbar.

4.6 The Managing Director's remuneration is not assignable.

4.7 Zahlungen seitens der Gesellschaft werden bargeldlos auf ein vom Geschäftsführer zu benennendes, deutsches Konto überwiesen.

4.7 Any payments made by the Company shall be transferred non-cash to a German bank account to be named by the Managing Director.

4.8 Zuviel gezahltes Entgelt oder sonstige Leistungen kann die Gesellschaft nach den Grundsätzen über die Herausgabe einer ungerechtfertigten Bereicherung zurückverlangen. Der Geschäftsführer kann sich auf den Wegfall der Bereicherung nicht berufen, wenn die rechtsgrundlose Überzahlung so offensichtlich war, dass er dies hätte erkennen müssen, oder wenn die Überzahlung auf Umständen beruhte, die er zu vertreten hat.

4.8 If the Company pays too much remuneration or other benefits, it can claim for restitution pursuant to the principles of unjust enrichment. If the lack of legal grounds is obvious to an extent that the Managing Director must have noticed, he may not refer to the argument that he is no longer enriched. The same applies, if he is responsible for the overpayment.

4a Betriebliche Altersversorgung

Die Gesellschaft wird zu Gunsten des Geschäftsführers eine betriebliche Altersversorgung abschließen. Sollte zum Beginn der Anstellung ein solches Regelwerk nicht existieren, verpflichtet sich die Gesellschaft, für den Geschäftsführer eine separate Regelung zu treffen mit einer Beitragshöhe im Äquivalent von 2% des jeweils aktuellen Festgehaltes bis zur Höhe der aktuellen BBG der gesetzlichen Rentenversicherung sowie 4% des jeweils aktuellen Festgehaltes der Beträge über der aktuellen BBG der gesetzlichen Rentenversicherung.

4a Occupational Pension Scheme

The Company shall conclude on an occupational pension scheme in favor of the Managing Director. Should such a regulation not be in existence at the time of joining, the Company shall conclude a separate regulation for the Managing Director. The contributions for such a regulation shall be the equivalent of 2% of the current base salary for any income below the current social security ceiling and 4% of the current base salary for any income above the current social security ceiling.

4b Abfindung

Wird dieser Geschäftsführer-Dienstvertrag von der Gesellschaft bzw. von den zuständigen Gesellschaftsorganen ordentlich gekündigt, erhält der Geschäftsführer eine Abfindungszahlung. Die

4b Severance Payment

If this Managing Director's Service Agreement is terminated by the Company or respectively by the competent Company's bodies by way of an ordinary dismissal (*ordentliche Kündigung*), the Managing Director

Abfindungshöhe beträgt ein Bruttomonatsgrundgehalt pro Beschäftigungsjahr. Für die Berechnung der Abfindungshöhe werden die bei Beendigung des Geschäftsführer-Dienstvertrages abgeleisteten vollen Dienstjahre und das während des letzten Monats vor Beendigung dieses Vertrages bezogene Bruttomonatsgrundgehalt zugrunde gelegt. Die Abfindungshöhe ist begrenzt auf maximal sechs Bruttomonatsgrundgehälter.

shall receive a severance payment. The severance payment amounts to a gross base monthly salary per year of services. The severance payment shall be calculated on the basis of the full years of service completed upon termination of the Managing Director's Service Agreement and the gross monthly base salary received during the last month prior to termination of this agreement. The severance payment is limited to a maximum of six gross monthly base salaries.

Die Abfindungssumme wird zum Ablauf des Geschäftsführer-Dienstvertrages fällig und wird unter Beachtung der hierfür geltenden steuerlichen Bestimmungen gezahlt.

The severance payment is due upon the expiry of the Managing Director's Service Agreement and is paid in accordance with applicable tax provisions.

Das Vorstehende gilt nicht, wenn die Gesellschaft bzw. die zuständigen Gesellschaftsorgane das Geschäftsführer-Dienstverhältnis außerordentlich wegen eines wichtigen Grundes gem. § 626 BGB wirksam kündigen.

The above shall not apply if the Company or respectively the competent Company's bodies validly terminate the Managing Director Service Agreement extraordinarily for good cause in accordance with Sec. 626 (German Civil Code).

5 Sozialversicherung

5 Social Security Contributions

Soweit die Tätigkeit des Geschäftsführers sozialversicherungspflichtig ist, trägt die Gesellschaft die gesetzlichen Arbeitgeberbeiträge.

To the extent that the Managing Director's Services are subject to social security, the Company shall bear the statutory employer's contributions.

6 Vergütung bei Dienstunfähigkeit oder Tod

6 Remuneration in the Event of Incapacity or Death

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6.1 Der Geschäftsführer verpflichtet sich, der Gesellschaft jede Dienstverhinderung und ihre voraussichtliche Dauer unverzüglich anzuzeigen. Auf Verlangen sind die Gründe der Dienstverhinderung mitzuteilen.

6.1 The Managing Director undertakes to notify the Company immediately in case of any service prevention and its probable duration. Upon request, the reasons for the prevention shall be communicated.

Im Falle der Arbeitsunfähigkeit infolge Krankheit ist der Geschäftsführer verpflichtet, vor Ablauf des vierten Kalendertages eine ärztliche Bescheinigung über die Arbeitsunfähigkeit und deren voraussichtliche Dauer vorzulegen. Jede Verlängerung ist unverzüglich anzuzeigen und ärztlich zu

In the event of incapacity for work as a result of illness, the Managing Director shall be obliged to submit a medical certificate stating the incapacity for work and its probable duration before the end of the fourth calendar day. Any extension must be notified immediately and certified by a doctor.

bescheinigen.

6.2 Bei einer vorübergehenden Dienstunfähigkeit des Geschäftsführers aufgrund von Krankheit oder eines anderen von ihm nicht zu vertretenden Grundes zahlt die Gesellschaft die Vergütung für den Zeitraum von 6 Wochen fort. Die Fortzahlung der Bezüge erfolgt längstens bis zur Beendigung dieses Vertrages.

6.2 In the case of temporary incapacity of the Managing Director to provide services due to illness or any other reason beyond his control, the Company shall continue to pay the Managing Director the remuneration hereunder for a period of six weeks. The continuation of payment of remuneration shall occur for a maximum period up until the ending of this agreement.

7 Erstattung von Aufwendungen

Notwendige Reisekosten und Spesen werden dem Geschäftsführer durch die Gesellschaft im Rahmen der steuerlichen Höchstbeträge erstattet. Die Erstattung von Reisekosten und Spesen setzt den Nachweis durch Vorlage entsprechender Belege voraus. Einzelheiten können sich aus einer etwaigen Spesen- und Reisekostenrichtlinie der Gesellschaft ergeben.

7 Reimbursement of Expenses

Necessary travel costs and expenses shall be reimbursed to the Managing Director by the Company within the framework of the maximum amounts permitted according to the tax regulations. The reimbursement of travel costs and expenses prerequisites provision of proof by submission of respective receipts. Details can be set forth in a possible Expenses and Travel Costs Directive of the Company.

8 Urlaub

8.1 Der Geschäftsführer hat Anspruch auf einen jährlichen Erholungsurlaub von dreißig (30) Arbeitstagen. Die Zeit seines Urlaubs legt er nach Abstimmung mit etwaigen Mitgeschäftsführern oder den zuständigen Gesellschaftsorganen unter Berücksichtigung der Interessen der Gesellschaft fest.

8 Vacation

8.1 The Managing Director is entitled to an annual vacation of thiry (30) working days. He shall schedule his vacation after consultation with any co-managing directors or the competent Company bodies taking the interests of the Company into consideration.

8.2 Bei Ausscheiden des Geschäftsführers während des Kalenderjahrs verkürzt sich der Urlaubsanspruch für jeden Monat, in dem dieses Dienstverhältnis nicht durchgehend bestanden hat, um 1/12. Eine Kürzung unterbleibt, soweit der gesetzliche Mindesturlaub unterschritten würde.

8.2 In case the Managing Director leaves the Company during a calendar year, the claim of vacation shall be decreased to every month in which this service agreement did not exist permanently, to 1/12. Decrease remains undone if the statutory minimum of vacation may be below that.

8.3 Im Übrigen gelten die Bestimmungen des Bundesurlaubsgesetzes analog.

8.3 Apart from that, the statutory provisions of the Federal Leave Act apply accordingly.

9 Geheimhaltung & Rückgabe

9 Confidentiality & Return

9.1	Der Geschäftsführer wird sowohl während seines Dienstverhältnisses als auch nach dessen Ende über alle ihm anvertrauten, zugänglich gemachten oder sonst bekannt gewordenen vertraulichen Angelegenheiten, insbesondere Betriebs- und Geschäftsgeheimnisse, der Gesellschaft oder eines mit der Gesellschaft verbundenen Unternehmens Stillschweigen gegenüber Dritten bewahren und Betriebs- und Geschäftsgeheimnisse nicht selbst verwerten.	9.1	During the term of this Agreement and thereafter, the Managing Director shall not disclose to any third party any of the business or operational secrets of the Company or any affiliated Company which have been entrusted or otherwise become known to him, and he shall not utilize such business or operational secrets himself.
9.2	Geschäftliche Unterlagen aller Art, einschließlich persönlicher Aufzeichnungen, die sich auf Angelegenheiten oder Tätigkeiten der Gesellschaft oder mit der Gesellschaft verbundener Unternehmen beziehen, dürfen nur zu geschäftlichen Zwecken verwendet werden, sind sorgfältig aufzubewahren und der Gesellschaft auf Aufforderung unverzüglich, bei Beendigung des Geschäftsführerdienstvertrages auch ohne Aufforderung unverzüglich, spätestens zum Beendigungsdatum auszuhändigen. Zurückbehaltungsrechte sind ausgeschlossen.	9.2	Any business records, including personal notes concerning the Company's or any affiliated company's affairs and activities, shall be used only for business purposes, shall be kept carefully, and must be immediately upon request, on termination of the Managing Director Service Agreement, also without request immediately at the latest on the date of termination handed over to the Company. Any rights of retention are excluded.
10	**Erfindungen, urheberrechtliche Werke**	**10**	**Inventions, Copyright Protected Works**
10.1	Erfindungen und technische Verbesserungsvorschläge, die der Geschäftsführer während seiner Tätigkeit für die Gesellschaft oder im Zusammenhang mit seiner Tätigkeit für die Gesellschaft oder aufgrund von Arbeitserzeugnissen der Gesellschaft gemacht oder erarbeitet hat, sind unverzüglich in Textform zu melden.	10.1	Inventions and technical improvement proposals which the Managing Director has created or made during or in connection with services for the Company or on the basis of work products of the Company are to be notified immediately to the Company in text form.
10.2	Der Geschäftsführer überträgt hiermit im Wege der Abtretung an die Gesellschaft, die diese Abtretungen hiermit annimmt, unwiderruflich alle etwaig bestehenden und zukünftigen gewerblichen Schutzrechte, Urheberrechte und verwandte Schutzrechte sowie sonstige Ausschließlichkeitsrechte, insbesondere	10.2	The Managing Director hereby irrevocably assigns to the Company, which hereby accepts such assignment, all possibly existing and future intellectual property rights, copyrights and affiliated propriety rights as well as all other exclusive rights, including but not limited to rights from patents, utility patents, trademarks,

solche aus Patent-, Gebrauchsmuster-, Marken-, Design- oder Urheberrecht, an den Arbeitsergebnissen, die der Geschäftsführer während oder außerhalb der Arbeitszeit

designs or copyrights in and to the work results which the Managing Director obtains, within or outside his working hours,

a) während der Dauer seines Dienstverhältnisses mit der Gesellschaft erstellt und die einen Bezug zu seinen vertraglichen Aufgaben haben, und/oder

a) during the term of his service relationship and which have a connection to his service tasks, and /or

b) im Zusammenhang mit vertraglichen Tätigkeiten für die Gesellschaft erworben hat, und/oder

b) in connection with his contractual services rendered on behalf of the Company, and/or

c) unter Verwendung von Material und/oder Arbeitszeit, die von der Gesellschaft zur Verfügung gestellt wurden, entwickelt oder erworben hat (nachfolgend zusammen die **„Arbeitsergebnisse“**), jeweils mit Wirkung zum Zeitpunkt ihres Entstehens.

c) upon use of material and/or work time provided by the Company (collectively the “**Work Results**”), in each case with effect from the time of their development.

Zu den Arbeitsergebnissen gehören insbesondere Datenverarbeitungsprogramme, schriftliche Unterlagen (Dokumentationen, Handbücher etc.), Softwarebeschreibungen (Pflichtenhefte, Grob- und Feinspezifikationen, Quellcode etc.), Darstellungen in wissenschaftlicher und technischer Art (z.B. Pläne, Skizzen, Tabellen etc.), Datenbanken sowie Schulungsmaterialen und sonstige Bild- und Sprachwerke.

The Work Results shall include, but not be limited to, data processing programs, written documentation (documents, handbooks, etc.), software descriptions (system specifications, rough and subtle specifications, source code etc.), presentations of scientific and technical kind (for example plans, sketches, charts, etc.), data bases as well as teaching material and other image and language works.

Soweit eine Abtretung der oben genannten Rechte rechtlich nicht möglich ist, überträgt der Mitarbeiter der Gesellschaft das ausschließliche, zeitlich, räumlich und inhaltlich unbeschränkte Nutzungs- und Verwertungsrecht für alle etwaigen nach Marken-, Design-, Gebrauchsmuster-, Urheberrecht schutzfähigen Arbeitsergebnisse sowie allen unter sonstige Immaterialgüterrechte fallenden Arbeitsergebnisse.

If and to the extent to, such assignment of the aforementioned rights is legally not possible, the Managing Director shall assign to the Company the exclusive right of use and exploitation, which is unrestricted in terms of time, territory and subject-matter, for all possible protectable Work Results, which may otherwise be protectable according to utility patents, trademarks, designs or copyrights according to any other industrial property right, as well as all other Work Results capable of

any other protection under intellectual property rights.

Die Übertragung schließt auch Rechte ein, die ggf. schon vor Aufnahme der Tätigkeit des Geschäftsführers für die Gesellschaft von ihm erworben wurden, sowie Rechte, die der Geschäftsführerprivat und/oder im Ausland erworben hat, sofern die zuvor genannten Voraussetzungen lit. a) -c) (alternativ oder kumulativ) vorliegen.

This assignment shall also encompass rights which were generated prior to the Managing Director's beginning of his services hereunder as well as rights obtained by the Managing Director in private and/or abroad, provided the preconditions under lit. a) – c) are met (alternatively or cumulatively).

10.3 Die Übertragung nach Ziffer 10.2 gilt auch für Manuskripte, Zeichnungen, Bilder einschließlich der Negative, Datenträger sowie sonstige Vorarbeiten und umfasst auch das Recht zur vollständigen oder teilweisen Übertragung von Nutzungs- und Verwertungsrechten und zur Vergabe von Lizenzen an Dritte.

10.3 The grants of rights pursuant to clause 10.2 shall also encompass and relate to manuscripts, drawings, pictures including negatives, data carrier plus any other preparatory work. It shall also include the right to complete or partial transfer of use and exploitation rights and to grant licenses to third parties.

Von der Rechteübertragung nach Ziffer 10.2 umfasst sind insbesondere auch die folgenden Rechte:

The assignment of rights pursuant to clause 10.2 shall also include, but not be limited to, the following rights:

a) das Vervielfältigungsrecht, insbesondere das Recht, die Arbeitsergebnisse oder deren Bearbeitungen vollständig oder teilweise, dauerhaft oder vorübergehend mit jedem Mittel und in jeder Form auf allen Speichermedien körperlich festzulegen sowie dauerhaft oder vorübergehend durch Laden, Anzeigen, Ablaufen, Übertragen und/oder Speichern zum Zwecke der Ausführung und/oder der Verarbeitung von Datenbeständen zu vervielfältigen;

a) The right of permanent or temporary reproduction of the Work Results by any means and in any form, in part or in whole, including loading, displaying, running, transmission, and/or storage and copies of the Work Results for the purpose of processing and reproduction of database;

b) das Verbreitungsrecht, also insbesondere das Recht, die Tätigkeitsergebnisse oder deren Bearbeitungen oder Vervielfältigungsstücke hiervon einem oder mehreren Dritten entgeltlich oder unentgeltlich, dauerhaft oder vorübergehend auf alle Verbreitungs- und Vertriebsarten und -wege körperlich weiterzugeben;

b) the right of distribution, in particular the right of transferring the Work Results or their editing or reproductions to one or more third parties free of charge or for a consideration, permanent or temporary and in any form;

c) das Vermiet- und Verleihrecht, insbesondere das Recht, die Arbeitsergebnisse zu vermieten und/oder zu verleihen;

c) the rental right and lending right, in particular the right to rent and lend the Work Results

d) das Datenbankrecht, also insbesondere das Recht, die Arbeitsergebnisse in eine Datenbank einzuspeisen oder als Sammlung, die durch ein Datenbankmanagementsystem verwaltet wird, auf beliebigen Datenträgern zu speichern, diese Datenträger in beliebiger Form zu vervielfältigen, zu verbreiten, zu vermieten, zu verleihen und/oder online, insbesondere im Internet bzw. WWW, bereitzuhalten, zu übertragen, wiederzugeben, öffentlich zugänglich zu machen und/oder vorzuführen oder, soweit der Vertragsgegenstand Datenbanken enthält, das Recht, diese Datenbanken oder einen nach Art oder Umfang wesentlichen Teil der Datenbanken zu vervielfältigen, zu verbreiten und/oder öffentlich wiederzugeben oder öffentlich zugänglich zu machen;

d) the database right, i.e. in particular the right to collect or store the Work Results in a data bank, or as a collection which is administrated by a data bank management system on data carriers, to duplicate such data carriers in every possible form, to distribute, lease and lend, to borrow, and/or to store, transfer, reproduce, make available and/or display online, in particular in the internet or WWW, or, to the extent the contract mater includes data banks, the right of re-production, distribution and/or publicly display or making available such data-bases or a part which is material due to its kind or extent;

e) das Recht der Öffentlichen Zugänglichmachung (*making-available*), insbesondere also das Recht, die Arbeitsergebnisse elektronisch, ganz oder teilweise, drahtgebunden, über Fernleitung oder draht- oder kabellos zu übertragen und/oder gegenüber der Öffentlichkeit oder geschlossenen Benutzerkreisen in einer Weise zugänglich zu machen, dass es diesen von Orten und zu Zeiten ihrer Wahl zugänglich ist;

e) the right of public access (*making-available*), thus, in particular the right to transmit the Work Results online or electronically, in part or in whole, via cable or wireless, and/or the right of public or non-public flexible (time and location) access;

f) das Online-Übertragungsrecht und das Online-Wiedergaberecht, also das Recht, die Arbeitsergebnisse elektronisch, ganz oder teilweise, drahtgebunden, über Fernleitung oder draht- oder kabellos, insbesondere über das Internet, das WWW oder über andere Online Dienste und/oder über beliebige interne oder externe Netzwerke

f) the right to online-transmission and online-reproduction, i.e. the right to transmit, transmit electronically, in whole or in part, wired, via telecommunication or wireless, in particular via internet or other online services or via any internal or external network (in particular WAN, LAN, W-LAN) or by funk to third parties, in particular for

(insbesondere WAN, LAN, W-LAN) oder per Funk Dritten zugänglich zu machen, zu versenden, zu übertragen, insbesondere auf Einzelabruf, per E-Mail und/oder im Rahmen einer Push-Applikation und/oder den Vertragsgegenstand auf diesem Weg zu übertragen, zu senden und/oder öffentlich wiederzugeben;

individual requests, by e-mail and/or in the form of an electronic transmission, and/or to transmit, send and/or publicly display the Work Results in such way to third parties;

g) das Vorführrecht, also das Recht, die Arbeitsergebnisse öffentlich vorzuführen;

g) the right to perform, i.e. the right to present the Work Results in public;

h) das Bearbeitungsrecht, insbesondere das Recht die Arbeitsergebnisse in andere Produkte der Gesellschaft oder eines Dritten zu integrieren bzw. integrieren zu lassen, sie in beliebiger Weise zu ändern, zu erweitern, zu implementieren, zu übersetzen, zu überarbeiten, zu arrangieren oder sonst wie umzuarbeiten oder umzugestalten, an die Bedürfnisse der Gesellschaft oder von Dritten anzupassen, in andere Programmsprachen und/oder für andere Betriebssysteme zu konvertieren und/oder in andere Darstellungsformen zu übertragen sowie die dadurch jeweils gewonnenen Ergebnisse wie die Arbeitsergebnisse selbst zu nutzen;

h) the right to edit, in particular the right to integrate Work Results into other products of the Company or of a third party, to change, extend, implement, translate, revise, arrange or otherwise alter or transform them in any manner, to adapt them to the needs of the Company or third parties, to convert them into other program languages or for other operating systems or to transfer them into other forms of presentation, and the respective results obtained thereby;

i) das Recht der Digitalisierung, insbesondere das Recht, die Arbeitsergebnisse digitalisiert zu erfassen, nicht digitalisierte, im Zusammenhang mit den Arbeitsergebnissen stehende Inhalte, Multimediaapplikationen und Begleitmaterial der Arbeitsergebnisse, insbesondere Dokumentationen, zu digitalisieren und/oder die Arbeitsergebnisse mit anderen Werken in digitalisierter Form zu verbinden; und

i) the right of digitization, in particular the right to digitize the Work Results, to digitize non-digitalized content, multimedia applications and supporting material of the Work Results, in particular documentation, or to combine the Work Results with other works in digitized form; and

j) das Recht, die Arbeitsergebnisse zu bearbeiten, umzuarbeiten, auseinanderzunehmen (dekompilieren) und/oder umzugestalten, insbesondere für

j) the right to edit, rework, disassemble (decompile) and/or transform the Work Results, in particular to adapt and further develop them for the benefit of

Anliegen der Gesellschaft anzupassen und weiterzuentwickeln und von den Arbeitsergebnissen abgeleitete Werke und Ergebnisse zu erstellen; und

Company and to produce works and results derived from the Work Results; and

k) das Recht, die Arbeitsergebnisse zu nutzen, insbesondere Erzeugnisse unter Verwendung der Arbeitsergebnisse herzustellen, anzubieten, in Verkehr zu bringen, zu gebrauchen oder zu diesen Zwecken zu besitzen oder Verfahren unter Verwendung der Arbeitsergebnisse anzuwenden.

k) the right to use the Work Results, in particular to create, offer, place on the market, use or possess for these purposes products using the Work Results, or to apply procedures using the Work Results

Die Parteien sind sich darüber einig, dass die vorgenannten Aufzählungen lediglich beispielhaft und nicht abschließend sind. Der Mitarbeiter überträgt der Gesellschaft auch die Rechte für sämtliche noch unbekannte Nutzungsarten.

The Parties agree that the aforementioned enumerations shall be made as an example only and shall not be deemed final. The Managing Director shall assign to the Company all rights also for unknown forms of use.

10.4 Die vorstehende Rechteübertragung gilt auch für die Zeit nach Beendigung des Dienstverhältnisses, ohne dass hierfür ein zusätzlicher Vergütungsanspruch entsteht.

10.4 The preceding assignment of rights shall apply also after termination of the service agreement, which will not result any additional claim to remuneration.

10.5 Sämtliche vorstehenden Rechte sind der Gesellschaft spätestens zum Zeitpunkt ihrer Entstehung als ausschließliche Rechte übertragen und können von der Gesellschaft nach freiem Belieben ganz oder teilweise auch in Form einer ausschließlichen oder nicht ausschließlichen Berechtigung auf Dritte weiter übertragen werden.

10.5 All aforementioned shall be deemed transferred to the Company as exclusive rights immediately upon their creation. The Company shall be entitled to further assign such rights, as a whole or in part, on an exclusive or non-exclusive basis, to third parties in its own sole discretion.

10.6 Der Geschäftsführerverzichtet insoweit auf seine etwaigen Nutzungs- und Verwertungsrechte an den Arbeitsergebnissen, einschließlich des Zugangsrechts gem. § 25 UrhG. Die Gesellschaft nimmt diesen Verzicht an. Dem Mitarbeiter ist es insbesondere, aber nicht ausschließlich, strengstens untersagt, die Arbeitsergebnisse, oder Teile davon, für eigene Zwecke, sowohl privater als auch beruflicher, insbesondere gewerblicher Art, zu nutzen. Hierzu zählt unter anderem auch die Nutzung der

10.6 The Managing Director shall, in this respect, waive any rights it holds inclusive the right of access as per Section 25 of the German Copyright Act (UrhG) to use the Work Results himself. The Company accepts this waiver. The Managing Director is strictly forbidden in particular (but not exclusively) from using the Work Results or parts thereof for its own purposes, both of a private and professional, specifically commercial nature. This also includes, amongst other things, the use of Work Results

Arbeitsergebnisse, oder Teilen davon, zum Zwecke der Eigenwerbung und/oder der Verwendung als Arbeitsproben.

or parts thereof for the purposes of self-promotion and/or as work samples.

10.7 Eine Verpflichtung der Gesellschaft zur Anmeldung, Nutzung oder Verwertung der Arbeitsergebnisse besteht nicht. Das dem Geschäftsführer nach den Bestimmungen des Urheberrechtsgesetzes eventuell zustehende Rückrufsrecht wegen Nichtausübung der jeweils übertragenen Nutzungs- und Verwertungsrechte ist für die Dauer von fünf Jahren ab deren Übertragung ausgeschlossen. Der Rückruf kann erst erklärt werden, nachdem (i) der Geschäftsführer der Gesellschaft eine Nachfrist von zwei Jahren unter Aufforderung zu im Einzelnen bezeichneten Nutzungen gesetzt hat und (ii) diese Nachfrist verstrichen ist, ohne dass die Gesellschaft dieser Aufforderung nachgekommen ist. Dies gilt nicht, wenn die Nichtausübung oder die unzureichende Ausübung überwiegend auf Umständen beruhen, deren Behebung dem Geschäftsführer zuzumuten ist.

10.7 The Company is not obliged to register, use or exploit the Work Results. The possible right of the Managing Director to revoke pursuant to the provisions of the German Copyright Act due to a failure of the Company to exercise the granted or transferred rights of use and exploitation shall be excluded for a term of five years since the grant or transfer of rights. Revocation may be declared only if (i) the Managing Director had set a deadline to the Company of two years, hereby requesting the exploitation method which must be specifically referred to, and (ii) the time limit has expired without the Company having complied with this request. This shall not apply if the non-exercise or the insufficient exercise is mainly based on circumstances which may reasonably be expected to be remedied by the Managing Director.

Der Gesellschaft verbleibt auch im Fall des Rückrufs stets ein einfaches Nutzungs- und Verwertungsrecht mit dem gleichen Umfang wie das der Gesellschaft nach diesem Vertrag gewährte ausschließliche Nutzungs- und Verwertungsrecht. Der Geschäftsführer darf nach erfolgtem Rückruf sein Arbeitsergebnis nur verwerten, wenn und soweit dies den berechtigten Interessen der Gesellschaft nicht abträglich ist.

Even in case of a revocation, the Company shall always retain a non-exclusive right of use with the same scope as the exclusive rights granted to Company in this agreement. In the event of an effective revocation, the Managing Director may only use and exploit the Work Product if and to the extent that this does not impair the legitimate interests of the Company.

10.8 Der Geschäftsführer ist im Rahmen seines Bestimmungsrechts gemäß § 13 S. 2 UrhG damit einverstanden, dass eine Benennung und Bezeichnung des Geschäftsführers als Urheber im Rahmen der Verwertung der Arbeitsergebnisse nicht erfolgt. Die Parteien stimmen darin überein, dass Urheberpersönlichkeitsrechte und ähnliche Rechte des Geschäftsführers im weitest zulässigen Umfang ausgeschlossen sind.

10.8 As part of his right to determination according to Sec. 13 clause 2 UrhG, the Managing Director hereby consents that he is not named as creator within the exploitation of the Work Results. The Parties agree that moral rights and similar rights of the Managing Director shall be excluded to the largest possible extent.

10.9 Der Geschäftsführer stellt eine angemessene Dokumentation seiner patentierbaren, urheberrechtsfähigen und sonst schützbaren Arbeitsergebnisse sicher, muss diese Dokumentation auf dem aktuellen Stand halten, sie der Gesellschaft jederzeit zur Verfügung stellen und ihr sämtliche Nutzungs- und Verwertungsrechte daran einräumen. Ferner soll der Geschäftsführer die Gesellschaft, ihre Rechtsnachfolger und Abtretungsempfänger auf deren Anforderung beim Erwerb von möglichen Schutzrechten an Arbeitsergebnissen unterstützen und ihnen ermöglichen, sich den vollen und ausschließlichen Nutzen und die Vorteile der Arbeitsergebnisse zu sichern und diese zu verwerten. Der Geschäftsführer soll dementsprechend sämtliche Anmeldungen, Abtretungserklärungen und andere rechtsverbindliche Erklärungen abgeben bzw. ausfüllen und einreichen. Er soll ferner Unterlagen unterzeichnen, die erforderlich oder von der Gesellschaft gewünscht sind, um die Urheberrechte oder anderen gewerblichen Schutzrechte an den Arbeitsergebnissen vollständig zu übertragen und um der Gesellschaft den gesamten und ausschließlichen Gebrauch und die Vorteile dieser Arbeitsergebnisse zu sichern und diese zu verwerten.

10.9 The Managing Director must ensure suitable documentation of his patentable, copyrightable and otherwise protectable Work Results, must keep the said documentation up to date and must make it accessible to the Company at any time and must assign title and any and all rights of use and exploitation to the said documentation to the Company. Furthermore, at the Company's request, he shall support it upon the acquisition of copyrights and other legal protection possibilities (especially industrial property rights) for the Managing Director's Work Results at home and abroad. The Managing Director shall accordingly fill in and submit all applications, assignment declarations and other legal declarations and shall sign all documents which are necessary or desired by the Company in order to assign copyrights or other industrial property rights to the Work Results to the Company in full and to enable the Company, its legal successors and assignees to secure for themselves the full and exclusive use and the benefits of these Work Results and to exploit them.

10.10 Sämtliche vertragsgegenständlichen Rechteübertragungen bzw. Rechteeinräumungen nach dieser Ziffer 10 und sämtliche sich hiernach ergebenden Pflichten sind Bestandteil der Dienstaufgabe des Geschäftsführers im Sinne von Ziffer 1 und sind mit der Zahlung der Vergütung nach Ziffer 4 vollständig abgegolten. Mit Ausnahme von Kosten, die durch die vorbezeichnete gesonderte Anforderung der Gesellschaft nach Ziffer 10.9 entstehen, erfolgt keine zusätzliche Kostenerstattung. Für den Fall, dass der Geschäftsführer die Mitwirkungspflichten nach Beendigung des Dienstverhältnisses erfüllt, soll er eine angemessene

10.10 The performance of such contractual assignments of rights and the entire transfer of exploitation rights and rights to use after clause 10 as well as all obligations arising here from are part of the Managing Director’s contractual tasks pursuant to clause 1 and shall all be deemed fully compensated by the payment of the remuneration pursuant to clause 4. Except of costs which he has incurred through the Company's request pursuant to clause 10.9, there shall be no additional reimbursement of expenses. If the Managing Director performs the cooperation obligations after the termination of the Managing Director's Services, he shall accordingly receive a reasonable daily

Tagesentschädigung sowie angemessene Kostenerstattung für sämtliche Kosten erhalten, die ihm durch die Aufforderung der Gesellschaft entstanden sind.

allowance and also the reimbursement of all reasonable costs which he has incurred through the Company's request.

10.11 Unberührt bleiben nichtabdingbare und zwingende Regelungen zur Nachvergütung, wie bspw. §§ 32a, 32c UrhG.

10.11 Unmodifiable, statutory law regarding additional payment, such as Sections 32a, 32c UrhG, shall remain unaffected.

10.12 Jegliche aus den auf die Gesellschaft übertragenen Arbeitsergebnisse und eingeräumten entsprechenden Nutzungs- und Verwertungsrechte resultierenden Gewinne oder sonstigen Vorteile stehen ausschließlich der Gesellschaft zu.

10.12 Any profits or other advantages resulting from the transferred Work Results or grant of the corresponding rights or use and exploitation belong exclusively to the Company.

11 Wettbewerbsverbot

11 Non-Competition

11.1 Dem Geschäftsführer ist es untersagt, während der Dauer des Geschäftsführerdienstvertrages in selbständiger, unselbständiger oder sonstiger Weise für ein Unternehmen tätig zu werden, welches mit der Gesellschaft indirekt oder direkt in Wettbewerb steht. In gleicher Weise ist es dem Geschäftsführer untersagt, während der Dauer dieses Geschäftsführerdienstvertrags ein solches Unternehmen zu errichten, zu erwerben oder sich hieran unmittelbar oder mittelbar zu beteiligen.

11.1 During the term of this managing director service agreement, the Managing Director is prohibited from working on a self-employed or employed basis or otherwise for any business that is in direct or indirect competition with the Company. Likewise, during the term of this managing director service agreement, the Managing Director is prohibited from forming, acquiring or directly or indirectly participating in such companies.

11.2 Der Geschäftsführer darf jedoch Aktien oder andere Wertpapiere eines Wettbewerbers erwerben und halten, die an einer Wertpapierbörse oder einem sonstigen anerkannten Wertpapierhandelsplatz gehandelt werden, soweit sie nicht mehr als 1 % des Grundkapitals hält.

11.2 The Managing Director may hold any shares or other securities of any competitor that is listed on any securities exchange or recognized securities market anywhere to the extent that he does not hold more than 1 % of the share capital.

12 Dauer und Beendigung des Dienstverhältnisses und des Amtes

12 Term and Termination of the Service Agreement and of the Office

12.1 Das Dienstverhältnis beginnt mit dem Stichtag und ist auf unbestimmte Zeit geschlossen.

12.1 The service agreement commences on the Effective Date and is entered into for an indefinite period.

12.2 Die ersten 6 Monate des Geschäftsführerdienstverhältnisses gelten als Probezeit. Innerhalb der Probezeit kann das

12.2 The first 6 months of the managing director service relationship are a probationary period. During the probationary period, the managing

Geschäftsführerdienstverhältnis von beiden Parteien mit einer Frist von vier Wochen gekündigt werden.

director service relationship may be terminated by both parties with four weeks' notice.

12.3 Nach dem Ende der Probezeit beträgt die beiderseitige Kündigungsfrist 3 Monate zum Monatsende. Zwingende Verlängerungen der von der Gesellschaft zu beachtenden Kündigungsfrist gelten auch für Kündigungen durch den Geschäftsführer.

12.3 After the expiration of the probationary period the notice period required from either party is 3 months to the end of a month. Any mandatory extension of the notice period required from the Company shall also apply to notices given by the Managing Director.

12.4 Das Recht zur außerordentlichen Kündigung aus wichtigem Grund bleibt unberührt. Ein wichtiger Grund liegt für die Gesellschaft insbesondere vor, wenn der Geschäftsführer gegen die ihm im Innenverhältnis auferlegten Beschränkungen der Geschäftsführung verstößt.

12.4 The right to terminate without notice for good cause remains unaffected. A violation by the Managing Director of the infernal limits of authority imposed upon him constitutes one example of such good cause for the Company.

12.5 Die Gesellschaft ist berechtigt, den Geschäftsführer jederzeit von seinem Amte als Geschäftsführer abzuberufen.

12.5 The Company may at any time remove the Managing Director from his Office as managing director.

12.6 Der Geschäftsführer ist nach Abberufung von seinem Geschäftsführeramt zur Leistung der Dienste oder zu sonstigen Tätigkeiten für die Gesellschaft weder berechtigt noch mit Ausnahme von Abwicklungs- oder Übergabetätigkeiten verpflichtet. Die übrigen Pflichten der Parteien, einschließlich der Treuepflichten und des Genehmigungsvorbehalts betreffend Neben- und anderer Tätigkeiten, bleiben unberührt. Noch nicht genommener Urlaub ist in der Zeit nach dem Ende des Amtes bis zum Ende des Dienstverhältnisses zu nehmen. Der Geschäftsführer muss sich auf seine Vergütung den Betrag anrechnen lassen, den er infolge des Unterbleibens seiner Dienste gegenüber der Gesellschaft erspart oder durch anderweitige Verwendung seiner Dienste erwirbt oder zu erwerben böswillig unterlässt.

12.6 Upon removal from his managing director Office, the Managing Director shall not be entitled nor, except for transitional activities, be required to render Services or other activities for the Company. The other duties of the parties, including loyalty obligations and the approval requirement with respect to side and other activities, remain unaffected. Any remaining vacation must be taken in the period between the expiration of the Office and the end of the service agreement. The Managing Director must allow the amount he has saved in consequence of non-performance of the Services to the Company, or acquired or maliciously omitted to acquire by a different use of his service, to be deducted from his remuneration.

13 Compliance

13 Compliance

Der Geschäftsführer verpflichtet sich, die Compliance-Richtlinien (einschließlich der in der IT-

The Managing Director undertakes to observe the guidelines on compliance (including the requirements set out in

Verpflichtungserklärung gemäß **Anlage 1** enthaltenen Vorgaben, der Insider Trading Richtlinie nach **Anlage 2,** des Verhaltens- und Ehtikkodex und Whistleblower Richtlinie der Gesellschaft gemäß **Anlage 3** sowie der External Communications Policy nach **Anlage 4**) zu beachten und erkennt diese Regelwerke als Teil dieses Geschäftsführervertrages als verbindlich an.

the IT-Declaration pursuant to **Exhibit 1**, the insider trading policy according to **Exhibit 2**, the corporate code of conduct and ethics and whistleblower policy pursuant to **Exhibit 3** and the External Communications Policy according to **Exhibit 4**) and accepts these guidelines as a binding part of this service agreement.

Im Rahmen seiner Tätigkeit für die Gesellschaft ist der Geschäftsführer durch eine Vermögensschadens-haftplichtversicherung seitens der Gesellschaft versichert.

The Managing Director shall be covered by the Directors & Officers Insurance of the Company.

14 Ausschlussfristen

14 Preclusive Periods

14.1 Alle Ansprüche, die sich aus dem Geschäftsführerdienstvertrag ergeben, sind von den Vertragsschließenden binnen einer Frist von 3 Monaten, nachdem der Anspruch entstanden ist und der Anspruchsteller von den anspruchsbegründenden Umständen Kenntnis erlangt hat oder ohne grobe Fahrlässigkeit hätte erlangen müssen, in Textform geltend zu machen. Im Falle ihrer Ablehnung durch die Gegenpartei oder wenn sich die Gegenpartei nicht innerhalb von zwei Wochen nach der Geltendmachung erklärt, ist der Anspruch binnen einer Frist von 3 Monaten einzuklagen. Andernfalls verfällt der Anspruch.

14.1 All claims that result from the Managing Director Service Agreement should be claimed in text form by the contractors within 3 months after the claim has emerged and the claimant has known about the claim circumstances or should have known about them without gross negligence. In case of a refusal by the counterparty or in case the counterparty does not react within two weeks after the claim is asserted, the claim should be prosecuted within 3 months. Otherwise, the claim will expire.

14.2 Die Ausschlussfrist aus Ziffer 14.1 gilt nicht bei Ansprüchen, die aus der Verletzung des Lebens, des Körpers oder der Gesundheit sowie aus vorsätzlichen oder grob fahrlässigen Pflichtverletzungen resultieren. Diese Ausschlussfrist gilt auch nicht für gesetzliche Fristen, die keiner Ausschlussfrist unterliegen dürfen (z.B.: Ansprüche aus dem Mindestlohngesetz).

14.2 The preclusive clause in accordance with clause 14.1 shall not apply to liability for claims resulting from loss of life, bodily injury or harm to health, as well as deliberate or grossly negligent breaches of duty. The aforementioned preclusive period shall also not apply to statutory time limits which are no subject to limitation periods (e.g.: claims deriving from the Minimum Wage Act).

15 Schluss- und andere Bestimmungen

15 Miscellaneous

15.1 Dieser Dienstvertrag regelt die vertraglichen Beziehungen der Parteien abschließend. Nebenabreden sind nicht

15.1 This service agreement constitutes the entire understanding between the parties relating to the service. There

getroffen. Änderungen und Ergänzungen dieses Vertrages bedürfen zu ihrer Wirksamkeit der Schriftform. Etwaige frühere Absprachen zwischen der Gesellschaft oder mit der Gesellschaft verbundener Unternehmen und dem Geschäftsführer betreffend das Dienstverhältnis enden hiermit.

are no ancillary agreements. Any amendments or additions to this Agreement shall be made in writing to be effective. Any and all prior arrangements, if any, between the Company or companies affiliated with the Company and the Managing Director with respect to the service agreement shall terminate herewith.

15.2 Mit dem Stichtag enden alle etwaigen früheren Arbeits- und Dienstverhältnisse zwischen der Gesellschaft oder mit der Gesellschaft verbundenen Unternehmen und dem Geschäftsführer.

15.2 All prior service and employment agreements, if any, between the Company or companies affiliated with the Company and the Managing Director shall terminate upon the Effective Date.

15.3 Ansprüche aus und im Zusammenhang mit dem Dienstverhältnis können nicht im Urkundsprozess geltend gemacht werden.

15.3 Claims under and in connection with this Agreement may not be brought in summary proceedings.

15.4 Sollte eine Bestimmung dieses Vertrages ganz oder teilweise ungültig sein oder werden, so wird hierdurch die Gültigkeit der übrigen Bestimmungen nicht berührt. Anstelle der ungültigen Bestimmung gilt diejenige gültige Bestimmung als vereinbart, die dem Sinn und Zweck der ungültigen Bestimmung am nächsten kommt. Dies gilt auch dann, wenn die Ungültigkeit der Bestimmung auf einem Maß der Leistung oder der Zeit beruht; es gilt dann das rechtlich zulässige Maß.

15.4 Should any provision of this Agreement, in total or in part, be or become invalid, the validity of the other provisions shall not be affected thereby. The invalid provision shall be replaced by such valid provision which corresponds as closely as possible to the intention and purpose of the invalid Provision. The same shall apply, if the invalidity is based on a measurement of Performance or time, in which case the extent permitted by law shall be applicable.

15.5 Das Dienstverhältnis untersteht deutschem Recht.

15.5 The service agreement shall be governed by German law.

15.6 Die deutsche Fassung dieses Vertrages ist maßgeblich.

15.6 The German Version of this Agreement shall be authoritative.

Für die Gesellschafter der Gesellschaft/
On behalf of the Company's shareholder:

Name/name: Stephen S. Yoder

Ort/Place: __Boston_____

Datum/Date:__22 February 2019____

Geschäftsführer/Managing Director:

Name/name: Dr. Hitto Kaufmann

Ort/Place: __Stuttgart_____

Datum/Date: ___23 February 2019___

Unterschrift/
Signature: /s/ Stephen S. Yoder

Unterschrift/
Signature: /s/ Dr. Hitto Kaufmann

Anlage 1:	IT-Verpflichtungserklärung
Anlage 2:	Insider Trading Richtlinie
Anlage 3:	Verhaltens- und Ethikkodex und Whistleblower Richtlinie
Anlage 4:	External Communications Policy

Exhibit 1:	IT-Declaration
Exhibit 2:	Insider Trading Policy
Exhibit 3:	Corporate Code of Conduct and Ethics and Whistleblower Policy
Exhibit 4:	External Communications Policy

Option No._____

PIERIS PHARMACEUTICALS, INC.

Non-Qualified Stock Option Grant Notice

1.	Name and Address of Participant:	Hitto Kaufmann, Ph.D. Stuttgarter Strasse 77 70469 Stuttgart, Germany
2.	Date of Option Grant:	August 30, 2019
3.	Maximum Number of Shares for which this Option is exercisable:	300,000
4.	Exercise (purchase) price per share:	$4.65
5.	Option Expiration Date:	August 30, 2029
6.	Vesting Start Date:	August 30, 2019

7. Vesting Schedule: This Option shall become exercisable (and the Shares issued upon exercise shall be vested) as follows provided the Participant is an Employee of the Company or of an Affiliate on the applicable vesting date:

The option vests as to 25% of the Shares on August 30, 2020 and vests as to an additional 6.25% of the Shares at the end of each calendar quarter beginning on December 31, 2020 and continuing thereafter until fully vested.

Notwithstanding the foregoing, in the event of a Covered Termination during a Change of Control Period (each as defined in the offer letter dated January 21, 2019 from the Company to the Participant and exhibits thereto (the "Offer Letter")) the vesting of the Option shall be accelerated in accordance with the terms and provisions of the Offer Letter.

The foregoing rights are cumulative and are subject to the other terms and conditions of this Agreement.

[*Remainder of page intentionally left blank*]

The Company and the Participant acknowledge receipt of this Stock Option Grant Notice and agree to the terms of the Stock Option Agreement attached hereto, and the terms of this Option Grant as set forth above.

PIERIS PHARMACEUTICALS, INC.

By: /s/ Allan Reine
Name: Allan Reine
Title: Chief Financial Officer

/s/ Dr. Hitto Kaufmann
Participant

PIERIS PHARMACEUTICALS, INC.

NON-QUALIFIED STOCK OPTION AGREEMENT

AGREEMENT made as of the date of grant set forth in the Stock Option Grant Notice by and between Pieris Pharmaceuticals, Inc. (the "Company"), a Nevada corporation, and the individual whose name appears on the Stock Option Grant Notice (the "Participant").

WHEREAS, the Company desires to grant to the Participant an Option to purchase shares of its common stock, $0.001 par value per share (the "Shares") as an inducement material to the Participant's entering into employment as Senior Vice President and Chief Scientific Officer of the Company, effective August 30, 2019 (the "Vesting Start Date"), in accordance with the terms of an offer letter from the Company dated January 21, 2019; and

WHEREAS, the Company and the Participant each intend that the Option granted herein shall be a non-qualified stock option.

NOW, THEREFORE, in consideration of the mutual covenants hereinafter set forth and for other good and valuable consideration, the parties hereto agree as follows:

1. DEFINITIONS.

Unless otherwise specified or unless the context otherwise requires, the following terms, as used in this Agreement, have the following meanings:

Administrator means the Board of Directors, unless it has delegated power to act on its behalf to the Committee, in which case the term Administrator means the Committee.

Affiliate means a corporation which, for purposes of Section 424 of the Code, is a parent or subsidiary of the Company, direct or indirect.

Board of Directors means the Board of Directors of the Company.

Cause means, with respect to a Participant: (a) dishonesty with respect to the Company or any Affiliate, (b) insubordination, substantial malfeasance or non-feasance of duty, (c) unauthorized disclosure of confidential information, (d) breach by a Participant of any provision of any employment, consulting, advisory, nondisclosure, non-competition or similar agreement between the Participant and the Company or any Affiliate, and (e) conduct substantially prejudicial to the business of the Company or any Affiliate; provided, however, that any provision in an agreement between a Participant and the Company or an Affiliate, which contains a conflicting definition of Cause for termination and which is in effect at the time of such termination, shall supersede this definition with respect to that Participant. The determination of the Administrator as to the existence of Cause will be conclusive on the Participant and the Company.

Code means the United States Internal Revenue Code of 1986, as amended, including any successor statute, regulation and guidance thereto.

Committee means the committee of the Board of Directors to which the Board of Directors has delegated power to act, the composition of which shall at all times satisfy the provisions of Section 162(m) of the Code.

Disability or Disabled means permanent and total disability as defined in Section 22(e)(3) of the Code.

Director means any member of the Board of Directors.

Employee means any employee of the Company or of an Affiliate (including, without limitation, an employee who is also serving as an officer or director of the Company or of an Affiliate).

Exchange Act means the Securities Exchange Act of 1934, as amended.

Fair Market Value of a Share of common stock means:

If the common stock is listed on a national securities exchange or traded in the over-the-counter market and sales prices are regularly reported for the common stock, the closing or, if not applicable, the last price of the common stock on the composite tape or other comparable reporting system for the trading day on the applicable date and if such applicable date is not a trading day, the last market trading day prior to such date;

If the common stock is not traded on a national securities exchange but is traded on the over-the-counter market, if sales prices are not regularly reported for the common stock for the trading day referred to in clause (1), and if bid and asked prices for the common stock are regularly reported, the mean between the bid and the asked price for the common stock at the close of trading in the over-the-counter market for the trading day on which common stock was traded on the applicable date and if such applicable date is not a trading day, the last market trading day prior to such date; and

If the common stock is neither listed on a national securities exchange nor traded in the over-the-counter market, such value as the Administrator, in good faith, shall determine in compliance with applicable laws.

Non-Qualified Option means an option which is not intended to qualify as an incentive stock option under Section 422 of the Code.

Option means a Non-Qualified Option granted as an inducement award under NASDAQ Listing Rule 5635(c)(4).

Securities Act means the Securities Act of 1933, as amended.

Shares means shares of the Company's common stock, $0.001 par value per share.

Survivor means a deceased Participant's legal representatives and/or any person or persons who acquired the Participant's rights to a Stock Right by will or by the laws of descent and distribution.

2. GRANT OF OPTION.

The Company hereby grants to the Participant the right and option to purchase all or any part of an aggregate of the number of Shares set forth in the Stock Option Grant Notice, on the terms and conditions and subject to all the limitations set forth herein and under United States securities and tax laws.

3. EXERCISE PRICE.

The exercise price of the Shares covered by the Option shall be the amount per Share set forth in the Stock Option Grant Notice, subject to adjustment, as provided in Section 10, in the event of a stock split, reverse stock split or other events affecting the holders of Shares after the date hereof (the "Exercise Price"). Payment shall be made in accordance with Section 6 of this Agreement.

4. EXERCISABILITY OF OPTION.

Subject to the terms and conditions set forth in this Agreement, the Option granted hereby shall become vested and exercisable as set forth in the Stock Option Grant Notice and is subject to the other terms and conditions of this Agreement.

5. TERM OF OPTION.

This Option shall terminate on the Option Expiration Date as specified in the Stock Option Grant Notice, but shall be subject to earlier termination as provided herein.

If the Participant ceases to be an Employee of the Company or of an Affiliate for any reason other than the death or Disability of the Participant, or termination of the Participant for Cause (the "Termination Date"), the Option to the extent then vested and exercisable pursuant to Section 4 hereof as of the Termination Date, and not previously terminated in accordance with this Agreement, may be exercised within three months after the Termination Date, or on or prior to the Option Expiration Date as specified in the Stock Option Grant Notice, whichever is earlier, but may not be exercised thereafter except as set forth below. In such event, the unvested portion of the Option shall not be exercisable and shall expire and be cancelled on the Termination Date.

Notwithstanding the foregoing, in the event of the Participant's Disability or death within three months after the Termination Date, the Participant or the Participant's Survivors may exercise the Option within one year after the Termination Date, but in no event after the Option Expiration Date as specified in the Stock Option Grant Notice.

In the event the Participant's service is terminated by the Company or an Affiliate for Cause, the Participant's right to exercise any unexercised portion of this Option even if vested shall cease immediately as of the time the Participant is notified his or her service is terminated for Cause, and this Option shall thereupon terminate. Notwithstanding anything herein to the contrary, if subsequent to the Participant's termination, but prior to the exercise of the Option, the Administrator determines that, either prior or subsequent to the Participant's termination, the Participant engaged in conduct which would constitute Cause, then the Participant shall immediately cease to have any right to exercise the Option and this Option shall thereupon terminate.

In the event of the Disability of the Participant, , the Option shall be exercisable within one year after the Participant's termination of due to Disability or, if earlier, on or prior to the Option Expiration Date as specified in the Stock Option Grant Notice. In such event, the Option shall be exercisable:

(a) to the extent that the Option has become exercisable but has not been exercised as of the date of the Participant's termination of service due to Disability; and

(b) in the event rights to exercise the Option accrue periodically, to the extent of a pro rata portion through the date of the Participant's termination of service due to Disability of any additional vesting rights that would have accrued on the next vesting date had the Participant not become Disabled. The proration shall be based upon the number of days accrued in the current vesting period prior to the date of the Participant's termination of service due to Disability.

In the event of the death of the Participant while an Employee of the Company or of an Affiliate, the Option shall be exercisable by the Participant's Survivors within one year after the date of death of the Participant or, if earlier, on or prior to the Option Expiration Date as specified in the Stock Option Grant Notice. In such event, the Option shall be exercisable:

(x) to the extent that the Option has become exercisable but has not been exercised as of the date of death; and

(y) in the event rights to exercise the Option accrue periodically, to the extent of a pro rata portion through the date of death of any additional vesting rights that would have accrued on the next vesting date had the Participant not died. The proration shall be based upon the number of days accrued in the current vesting period prior to the Participant's date of death.

6. METHOD OF EXERCISING OPTION.

Subject to the terms and conditions of this Agreement, the Option may be exercised by written notice to the Company or its designee, in substantially the form of Exhibit A attached hereto (or in such other form acceptable to the Company, which may include electronic notice).

Such notice shall state the number of Shares with respect to which the Option is being exercised and shall be signed by the person exercising the Option (which signature may be provided electronically in a form acceptable to the Company). Payment of the Exercise Price for such Shares shall be made (a) in United States dollars in cash or by check, or (b) at the discretion of the Board of Directors of the Company or, if applicable, a Committee of the Board of Directors, through delivery of shares of Common Stock having a Fair Market Value (as defined below) equal as of the date of the exercise to the cash exercise price of the Option and held for at least six months, or (c) in accordance with a cashless exercise program established with a securities. The Company shall deliver such Shares as soon as practicable after the notice shall be received, provided, however, that the Company may delay issuance of such Shares until completion of any action or obtaining of any consent, which the Company deems necessary under any applicable law (including, without limitation, state securities or "blue sky" laws). The Shares as to which the Option shall have been so exercised shall be registered in the Company's share register in the name of the person so exercising the Option (or, if the Option shall be exercised by the Participant and if the Participant shall so request in the notice exercising the Option, shall be registered in the Company's share register in the name of the Participant and another person jointly, with right of survivorship) and shall be delivered as provided above to or upon the written order of the person exercising the Option. In the event the Option shall be exercised, pursuant to Section 5 hereof, by any person other than the Participant, such notice shall be accompanied by appropriate proof of the right of such person to exercise the Option. All Shares that shall be purchased upon the exercise of the Option as provided herein shall be fully paid and nonassessable.

7. PARTIAL EXERCISE.

Exercise of this Option to the extent above stated may be made in part at any time and from time to time within the above limits, except that no fractional share shall be issued pursuant to this Option.

8. NON-ASSIGNABILITY.

The Option shall not be transferable by the Participant otherwise than by will or by the laws of descent and distribution or pursuant to a qualified domestic relations order as defined by the Code or Title I of the Employee Retirement Income Security Act or the rules thereunder. Except as provided above in this paragraph, the Option shall be exercisable, during the Participant's lifetime, only by the Participant (or, in the event of legal incapacity or incompetency, by the Participant's guardian or representative) and shall not be assigned, pledged or hypothecated in any way (whether by operation of law or otherwise) and shall not be subject to execution, attachment or similar process. Any attempted transfer, assignment, pledge, hypothecation or other disposition of the Option or of any rights granted hereunder contrary to the provisions of this Section 8, or the levy of any attachment or similar process upon the Option shall be null and void.

9. NO RIGHTS AS STOCKHOLDER UNTIL EXERCISE.

The Participant shall have no rights as a stockholder with respect to Shares subject to this Agreement until registration of the Shares in the Company's share register in the name of the Participant. Except as is expressly provided in Section 10 of this Agreement with respect to

certain changes in the capitalization of the Company, no adjustment shall be made for dividends or similar rights for which the record date is prior to the date of such registration.

10. ADJUSTMENTS.

Upon the occurrence of any of the following events, the Participant's rights with respect to the Option shall be adjusted as hereinafter provided.

(a) Stock Dividends and Stock Splits. If (i) the Shares shall be subdivided or combined into a greater or smaller number of shares or if the Company shall issue any Shares as a stock dividend on its outstanding Shares, or (ii) additional shares or new or different shares or other securities of the Company or other non-cash assets are distributed with respect to such Shares, the Option and the number of Shares deliverable thereunder shall be appropriately increased or decreased proportionately, and appropriate adjustments shall be made including, in the exercise price per share, to reflect such events.

(b) Corporate Transactions. If the Company is to be consolidated with or acquired by another entity in a merger, consolidation, or sale of all or substantially all of the Company's assets other than a transaction to merely change the state of incorporation (a "Corporate Transaction"), the Administrator or the board of directors of any entity assuming the obligations of the Company hereunder (the "Successor Board"), shall, as to the unexercised portion of the Option, either (i) make appropriate provision for the continuation of the Option by substituting on an equitable basis for the Shares then subject to the Option either the consideration payable with respect to the outstanding Shares in connection with the Corporate Transaction or securities of any successor or acquiring entity; or (ii) upon written notice to the Participant, provide that the Option must be exercised (to the extent then exercisable, within a specified number of days of the date of such notice, at the end of which period the Option shall terminate); or (iii) terminate the Option in exchange for payment of an amount equal to the consideration payable upon consummation of such Corporate Transaction to the holder of the number of Shares into which the Option would have been exercisable less the aggregate exercise price thereof. For purposes of determining the payments to be made pursuant to Subclause (iii) above, in the case of a Corporate Transaction the consideration for which, in whole or in part, is other than cash, the consideration other than cash shall be valued at the fair value thereof as determined in good faith by the Board of Directors.

(c) Recapitalization or Reorganization. In the event of a recapitalization or reorganization of the Company other than a Corporate Transaction pursuant to which securities of the Company or of another corporation are issued with respect to the outstanding Shares, the Participant upon exercising the Option after the recapitalization or reorganization shall be entitled to receive for the price paid upon such exercise or acceptance if any, the number of replacement securities which would have been received if the Option had been exercised prior to such recapitalization or reorganization.

(d) Modification of Options. Notwithstanding the foregoing, any adjustments made pursuant to Subsection (a), (b) or (c) above shall be made only after the Administrator determines whether such adjustments would cause any adverse tax consequences, including, but not limited to, pursuant to Section 409A of the Code. If the Administrator determines that such adjustments would constitute a modification of the Option or other adverse tax consequence to the Participant,

it may refrain from making such adjustments, unless the Participant specifically agrees in writing that such adjustment be.

(e). Dissolution or Liquidation of the Company. Upon the dissolution or liquidation of the Company, the Option will terminate and become null and void; provided, however, that if the rights of the Participant or the Participant's Survivors have not otherwise terminated and expired, the Participant or the Participant's Survivors will have the right immediately prior to such dissolution or liquidation to exercise the Option to the extent that the Option is exercisable as of the date immediately prior to such dissolution or liquidation.

11. TAXES.

The Participant acknowledges and agrees that (i) any income or other taxes due from the Participant with respect to this Option or the Shares issuable pursuant to this Option shall be the Participant's responsibility; (ii) the Participant was free to use professional advisors of his or her choice in connection with this Agreement, has received advice from his or her professional advisors in connection with this Agreement, understands its meaning and import, and is entering into this Agreement freely and without coercion or duress; (iii) the Participant has not received and is not relying upon any advice, representations or assurances made by or on behalf of the Company or any Affiliate or any employee of or counsel to the Company or any Affiliate regarding any tax or other effects or implications of the Option, the Shares or other matters contemplated by this Agreement; and (iv) neither the Administrator, the Company, its Affiliates, nor any of its officers or directors, shall be held liable for any applicable costs, taxes, or penalties associated with the Option if, in fact, the Internal Revenue Service were to determine that the Option constitutes deferred compensation under Section 409A of the Code.

The Participant agrees that the Company may withhold from the Participant's remuneration, if any, the minimum statutory amount of federal, state and local withholding taxes attributable to such amount that is considered compensation includable in such person's gross income. At the Company's discretion, the amount required to be withheld may be withheld in cash from such remuneration, or in kind from the Shares otherwise deliverable to the Participant on exercise of the Option. The Participant further agrees that, if the Company does not withhold an amount from the Participant's remuneration sufficient to satisfy the Company's income tax withholding obligation, the Participant will reimburse the Company on demand, in cash, for the amount under-withheld.

12. PURCHASE FOR INVESTMENT.

Unless the offering and sale of the Shares to be issued upon the particular exercise of the Option shall have been effectively registered under the Securities Act, the Company shall be under no obligation to issue the Shares covered by such exercise unless the Company has determined that such exercise and issuance would be exempt from the registration requirements of the Securities Act and until the following conditions have been fulfilled:

(a) The person(s) who exercise the Option shall warrant to the Company, at the time of such exercise, that such person(s) are acquiring such Shares for their own respective accounts, for investment, and not with a view to, or for sale

in connection with, the distribution of any such Shares, in which event the person(s) acquiring such Shares shall be bound by the provisions of the following legend which shall be endorsed upon any certificate(s) evidencing the Shares issued pursuant to such exercise:

"The shares represented by this certificate have been taken for investment and they may not be sold or otherwise transferred by any person, including a pledgee, unless (1) either (a) a Registration Statement with respect to such shares shall be effective under the Securities Act of 1933, as amended, or (b) the Company shall have received an opinion of counsel satisfactory to it that an exemption from registration under such Act is then available, and (2) there shall have been compliance with all applicable state securities laws;" and

(b) If the Company so requires, the Company shall have received an opinion of its counsel that the Shares may be issued upon such particular exercise in compliance with the Securities Act without registration thereunder. Without limiting the generality of the foregoing, the Company may delay issuance of the Shares until completion of any action or obtaining of any consent, which the Company deems necessary under any applicable law (including without limitation state securities or "blue sky" laws).

13. RESTRICTIONS ON TRANSFER OF SHARES.

13.1 The Participant agrees that in the event the Company proposes to offer for sale to the public any of its equity securities and such Participant is requested by the Company and any underwriter engaged by the Company in connection with such offering to sign an agreement restricting the sale or other transfer of Shares, then it will promptly sign such agreement and will not transfer, whether in privately negotiated transactions or to the public in open market transactions or otherwise, any Shares or other securities of the Company held by the Participant during such period as is determined by the Company and the underwriters, not to exceed 180 days following the closing of the offering, plus such additional period of time as may be required to comply with FINRA rules or similar rules thereto promulgated by another regulatory authority (such period, the "Lock-Up Period"). Such agreement shall be in writing and in form and substance reasonably satisfactory to the Company and such underwriter and pursuant to customary and prevailing terms and conditions. Whether or not the Participant has signed such an agreement, the Company may impose stop-transfer instructions with respect to the Shares or other securities of the Company subject to the foregoing restrictions until the end of the Lock-Up Period.

13.2 The Participant acknowledges and agrees that neither the Company, its stockholders nor its directors and officers, has any duty or obligation to disclose to the Participant any material information regarding the business of the Company or affecting the value of the Shares before, at the time of, or following a termination of the service of the Participant by the Company, including, without limitation, any information concerning plans for the Company to make a public offering of its securities or to be acquired by or merged with or into another firm or entity.

14. NO OBLIGATION TO MAINTAIN RELATIONSHIP.

The Participant acknowledges that: (i) the Company is not by this Agreement obligated to continue the Participant as an employee, director or consultant of the Company or an Affiliate; (ii) the grant of the Option is a one-time benefit which does not create any contractual or other right to receive future grants of options, or benefits in lieu of options; (iii) all determinations with respect to any such future grants, including, but not limited to, the times when options shall be granted, the number of shares subject to each option, the option price, and the time or times when each option shall be exercisable, will be at the sole discretion of the Company; (iv) the value of the Option is an extraordinary item of compensation which is outside the scope of the Participant's employment or consulting contract, if any; and (v) the Option is not part of normal or expected compensation for purposes of calculating any severance, resignation, redundancy, end of service payments, bonuses, long-service awards, pension or retirement benefits or similar payments.

15. NOTICES.

Any notices required or permitted by the terms of this Agreement shall be given by recognized courier service, facsimile, registered or certified mail, return receipt requested, addressed as follows:

If to the Company:

Pieris Pharmaceuticals, Inc.
255 State Street, 9th floor
Boston, MA 02109
Attention: Chief Executive Officer

If to the Participant at the address set forth on the Stock Option Grant Notice.

or to such other address or addresses of which notice in the same manner has previously been given. Any such notice shall be deemed to have been given upon the earlier of receipt, one business day following delivery to a recognized courier service or three business days following mailing by registered or certified mail.

16. GOVERNING LAW.

This Agreement shall be governed by and construed in accordance with the laws of the State of Nevada, without giving effect to the conflict of law principles thereof. For the purpose of litigating any dispute that arises under this Agreement, the parties hereby consent to exclusive jurisdiction in Nevada and agree that such litigation shall be conducted in the state courts of Nevada or the federal courts of the United States for the District of Nevada.

17. BENEFIT OF AGREEMENT.

Subject to the provisions hereof, this Agreement shall be for the benefit of and shall be binding upon the heirs, executors, administrators, successors and assigns of the parties hereto.

18. ENTIRE AGREEMENT.

This Agreement embodies the entire agreement and understanding between the parties hereto with respect to the subject matter hereof and supersedes all prior oral or written agreements and understandings relating to the subject matter hereof (with the exception of acceleration of vesting provisions contained in any other agreement with the Company). No statement, representation, warranty, covenant or agreement not expressly set forth in this Agreement shall affect or be used to interpret, change or restrict the express terms and provisions of this Agreement.

19. MODIFICATIONS AND AMENDMENTS.

The terms and provisions of this Agreement may be modified or amended by the Administrator; provided, however, the Administrator not take any action that is considered a direct or indirect "repricing" for purposes of the stockholder approval rules of the applicable securities exchange or inter-dealer quotation system on which the Shares are listed, including any other action that is treated as a repricing under generally accepted accounting principles. Any modification or amendment of this Agreement shall not, without the consent of the Participant, adversely affect the Participant's rights under this Agreement. .

20. WAIVERS AND CONSENTS.

The terms and provisions of this Agreement may be waived, or consent for the departure therefrom granted, only by written document executed by the party entitled to the benefits of such terms or provisions. No such waiver or consent shall be deemed to be or shall constitute a waiver or consent with respect to any other terms or provisions of this Agreement, whether or not similar. Each such waiver or consent shall be effective only in the specific instance and for the purpose for which it was given, and shall not constitute a continuing waiver or consent.

21. DATA PRIVACY.

By entering into this Agreement, the Participant understands and acknowledges the processing of personal data as described in Annex A to this Agreement.

Annex A

DATA PRIVACY

The Company and the Participant's employer processes certain personal information regarding the Participant for the purpose of managing and administering the Company's 2019 Employee, Director and Consultant Equity Incentive Plan (the "Plan") and other outstanding stock options that conform in substance to the form of stock option agreement issued under the Plan (including this Option), including the Participant's name, contact details, social security number and details on the grant of shares (the "Data"). The legal bases for this processing are Art. 6 (1) (1) (b) GDPR and Section 26 of the German Data Protection Law. The Company will share Data with Affiliates and agents of the Company as necessary for the purpose of administration of the Participant's participation in the Plan. This data processing is justified under Art. 6 (1) (1) (b) and (f) GDPR. It is in the Company's as well as in the Participant's interest to ensure a flawless participation in the stock program.

Further, the Company and the Affiliates may transfer Data, in electronic or other form, to any third party assisting the Company in the implementation, administration and management of the Plan. These recipients include contractors processing data on behalf and according to the instructions of the Company (e.g. Solium Shareworks). The data transfer to these contractors is justified under Art. 28 GDPR in conjunction with the respective data processing agreement. Some recipients process the data in their sole responsibility as data controller. Legal basis for these transfers is Art. 6 (1) (1) (b) and (f) GDPR. The Company has a legitimate interest to engage others to fulfill their contractual obligations ensure proper conduction of the Plan. The recipients of Data may be located in the United States or elsewhere. The Company and its Affiliates will provide appropriate safeguards to ensure an adequate level of data protection at the recipient by e.g. concluding standard contractual clauses provided by the EU Commission.

The Data will be retained as long as necessary for the respective purpose and deleted afterwards. Statutory retention periods remain unaffected.

The Participant may, depending on the circumstances of the specific case, obtain confirmation as to whether Data concerning the Participant is processed, request access to the Data and receive the Data in a structured, commonly used and machine-readable format; request rectification and erasure of Data or restriction of the processing under the legal requirements; and lodge a complaint with the competent supervisory authority. **The Participant has the right to object to the Data processing where the Company processes Data for the purpose of pursuing its legitimate interests and there are reasons arising from Participant's particular situation.**

Exhibit A

NOTICE OF EXERCISE OF STOCK OPTION

[Form for Shares registered in the United States]

To: Pieris Pharmaceuticals, Inc.

IMPORTANT NOTICE: This form of Notice of Exercise may only be used at such time as the Company has filed a Registration Statement with the Securities and Exchange Commission under which the issuance of the Shares for which this exercise is being made is registered and such Registration Statement remains effective.

Ladies and Gentlemen:

I hereby exercise my Stock Option to purchase _____ shares (the "Shares") of the common stock, $0.001 par value, of Pieris Pharmaceuticals, Inc. (the "Company"), at the exercise price of $_____ per share, pursuant to and subject to the terms of that Stock Option Grant Notice dated August 30, 2019.

I understand the nature of the investment I am making and the financial risks thereof. I am aware that it is my responsibility to have consulted with competent tax and legal advisors about the relevant national, state and local income tax and securities laws affecting the exercise of the Option and the purchase and subsequent sale of the Shares.

I am paying the option exercise price for the Shares as follows:

_____

Please issue the Shares (check one):

☐ to me; or

☐ to me and _____, as joint tenants with right of survivorship,

at the following address:

_____
_____
_____

My mailing address for stockholder communications, if different from the address listed above, is:

_____
_____
_____

Very truly yours,

_____
Participant (signature)

_____
Print Name

_____
Date

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: November 12, 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, Thomas Bures, 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: November 12, 2019

/s/ Thomas Bures

Thomas Bures

Title: Vice President, Finance and Treasurer (principal financial officer and principal accounting 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 September 30, 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: November 12, 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 September 30, 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: November 12, 2019

/s/ Thomas Bures

Thomas Bures

Title: Vice President, Finance and Treasurer

(principal financial officer and principal accounting officer)