
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, 2018

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: 001-36333

Bio-Path Holdings, Inc.

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of
incorporation or organization)

87-0652870

(I.R.S. Employer
Identification No.)

4710 Bellaire Boulevard, Suite 210, Bellaire, Texas 77401
(Address of principal executive offices)

Registrant's telephone no., including area code: (832) 742-1357

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
Non-accelerated filer

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

At November 1, 2018, the Company had 13,602,294 outstanding shares of common stock, par value \$0.001 per share.

Unless the context requires otherwise, references in this Quarterly Report on Form 10-Q to “we,” “our,” “us,” “the Company” and “Bio-Path” refer to Bio-Path Holdings, Inc. and its wholly-owned subsidiary. Bio-Path Holdings, Inc.’s wholly-owned subsidiary, Bio-Path, Inc., is sometimes referred to herein as “Bio-Path Subsidiary.”

CAUTIONARY 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 (the “Securities Act”), and Section 21E of the Securities Exchange Act of 1934, as amended (the “Exchange Act”). Forward-looking statements can be identified by words such as “anticipate,” “expect,” “intend,” “plan,” “believe,” “seek,” “estimate,” “project,” “goal,” “strategy,” “future,” “likely,” “may,” “should,” “will” and variations of these words and similar references to future periods, although not all forward-looking statements contain these identifying words. Forward-looking statements are neither historical facts nor assurances of future performance. Instead, they are based on our current beliefs, expectations and assumptions regarding the future of our business, future plans and strategies, projections, anticipated events and trends, the economy and other future conditions. Because forward-looking statements relate to the future, they are subject to inherent risks, uncertainties and changes in circumstances, including those discussed in “Item 1A. Risk Factors” to Part I of our Annual Report on Form 10-K as of the fiscal year ended December 31, 2017 and in other reports or documents we file with the U.S. Securities and Exchange Commission (“SEC”). As a result, our actual results may differ materially from those expressed or forecasted in the forward-looking statements, and you should not rely on such forward-looking statements. Please refer to “Item 1A. Risk Factors” to Part I of our Annual Report on Form 10-K as of the fiscal year ended December 31, 2017 and other reports or documents we file with the SEC for a discussion of risks and factors that could cause our actual results and financial condition to differ materially from those expressed or forecasted in this Quarterly Report on Form 10-Q.

Any forward-looking statement made by us in this Quarterly Report on Form 10-Q is based only on information currently available to us and speaks only as of the date on which it is made. We undertake no obligation to publicly update any forward-looking statement, whether as a result of new information, future developments or otherwise. However, you should carefully review the risk factors set forth in other reports or documents we file from time to time with the SEC.

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PART I - FINANCIAL INFORMATION

ITEM 1. FINANCIAL STATEMENTS

BIO-PATH HOLDINGS, INC.

CONDENSED CONSOLIDATED BALANCE SHEETS
(In thousands, except par value)
(Unaudited)

	<u>As of September 30, 2018</u>	<u>As of December 31, 2017</u>
Assets		
Current assets		
Cash	\$ 2,286	\$ 5,965
Prepaid drug product for testing	257	1,117
Other current assets	281	353
Total current assets	<u>2,824</u>	<u>7,435</u>
Fixed assets		
Furniture, fixtures & equipment	1,001	984
Less accumulated depreciation	<u>(528)</u>	<u>(330)</u>
	473	654
Other assets		
Technology licenses	2,500	2,500
Less accumulated amortization	<u>(1,852)</u>	<u>(1,731)</u>
	<u>648</u>	<u>769</u>
Total Assets	<u>\$ 3,945</u>	<u>\$ 8,858</u>
Liabilities & Shareholders' Equity		
Current liabilities		
Accounts payable	\$ 451	\$ 52
Accrued expenses	<u>506</u>	<u>739</u>
Total current liabilities	<u>957</u>	<u>791</u>
Total Liabilities	957	791
Shareholders' equity		
Preferred stock, \$.001 par value; 10,000 shares authorized; no shares issued and outstanding	-	-
Common stock, \$.001 par value; 200,000 shares authorized; 13,310 and 11,339 shares issued and outstanding, respectively	13	11
Additional paid in capital	48,806	47,213
Accumulated deficit	<u>(45,831)</u>	<u>(39,157)</u>
Total shareholders' equity	<u>2,988</u>	<u>8,067</u>
Total Liabilities & Shareholders' Equity	<u>\$ 3,945</u>	<u>\$ 8,858</u>

SEE ACCOMPANYING NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

BIO-PATH HOLDINGS, INC.

CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS
(In thousands, except per share amounts)
(Unaudited)

	<u>Three Months Ended September 30,</u>		<u>Nine Months Ended September 30,</u>	
	<u>2018</u>	<u>2017</u>	<u>2018</u>	<u>2017</u>
Operating expenses				
Research and development	\$ 2,342	\$ 1,583	\$ 4,101	\$ 4,089
General and administrative	740	893	2,579	2,708
Total operating expenses	<u>3,082</u>	<u>2,476</u>	<u>6,680</u>	<u>6,797</u>
Net operating loss	<u>\$ (3,082)</u>	<u>\$ (2,476)</u>	<u>\$ (6,680)</u>	<u>\$ (6,797)</u>
Other income (loss)				
Change in fair value of warrant liability	-	-	-	2,374
Loss on extinguishment of warrant liability	-	-	-	(440)
Interest income	1	2	6	7
Total other income	<u>1</u>	<u>2</u>	<u>6</u>	<u>1,941</u>
Net loss	<u>\$ (3,081)</u>	<u>\$ (2,474)</u>	<u>\$ (6,674)</u>	<u>\$ (4,856)</u>
Deemed dividend related to warrant conversion	-	-	-	(1,038)
Net loss attributable to common stockholders	<u>\$ (3,081)</u>	<u>\$ (2,474)</u>	<u>\$ (6,674)</u>	<u>\$ (5,894)</u>
Net loss per share, basic and diluted	<u>\$ (0.27)</u>	<u>\$ (0.25)</u>	<u>\$ (0.59)</u>	<u>\$ (0.60)</u>
Basic and diluted weighted average number of common shares outstanding	<u>11,469</u>	<u>10,006</u>	<u>11,384</u>	<u>9,810</u>

SEE ACCOMPANYING NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

BIO-PATH HOLDINGS, INC.

CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(In thousands)
(Unaudited)

	Nine Months Ended September 30,	
	2018	2017
Cash flow from operating activities		
Net loss	\$ (6,674)	\$ (4,856)
Adjustments to reconcile net loss to net cash used in operating activities		
Amortization	121	120
Depreciation	198	185
Stock-based compensation	416	675
Change in fair value of warrant liability	-	(2,374)
Loss on extinguishment of warrant liability	-	440
(Increase) decrease in assets		
Prepaid drug product for testing	860	(277)
Other current assets	72	391
Increase (decrease) in liabilities		
Accounts payable and accrued expenses	166	(36)
Net cash used in operating activities	<u>(4,841)</u>	<u>(5,732)</u>
Cash flow from investing activities		
Purchases of furniture, fixtures & equipment	<u>(17)</u>	<u>(538)</u>
Net cash used in investing activities	<u>(17)</u>	<u>(538)</u>
Cash flow from financing activities		
Net proceeds from sale of common stock	1,179	-
Net proceeds from exercise of warrants	<u>-</u>	<u>1,518</u>
Net cash provided by financing activities	<u>1,179</u>	<u>1,518</u>
Net decrease in cash	(3,679)	(4,752)
Cash, beginning of period	<u>5,965</u>	<u>9,375</u>
Cash, end of period	<u>\$ 2,286</u>	<u>\$ 4,623</u>
Supplemental disclosure of non-cash activities		
Non-cash financing activities		
Warrants transferred to equity upon modification	\$ -	\$ 797
Conversion of warrant liability to equity	\$ -	\$ 175

SEE ACCOMPANYING NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

BIO-PATH HOLDINGS, INC.

Notes to the Unaudited Condensed Consolidated Financial Statements for the Period Ended September 30, 2018

Unless the context requires otherwise, references in these Notes to the Unaudited Condensed Consolidated Financial Statements to “we,” “our,” “us,” “the Company” and “Bio-Path” refer to Bio-Path Holdings, Inc. and its subsidiary. Bio-Path Holdings, Inc.’s wholly-owned subsidiary, Bio-Path, Inc., is sometimes referred to herein as “Bio-Path Subsidiary.”

The accompanying interim financial statements have been prepared in accordance with the instructions to Form 10-Q pursuant to the rules and regulations of the Securities and Exchange Commission (“SEC”) and, therefore, do not include all information and footnotes necessary for a complete presentation of the Company’s financial position, results of operations, cash flows, and stockholders’ equity in conformity with generally accepted accounting principles. In the opinion of management, all adjustments considered necessary for a fair presentation of the results of operations and financial position have been included and all such adjustments are of a normal recurring nature. The unaudited quarterly financial statements should be read in conjunction with the audited financial statements and notes thereto included in the Annual Report on Form 10-K of the Company as of and for the fiscal year ended December 31, 2017. The results of operations for the period ended September 30, 2018, are not necessarily indicative of the results for a full-year period.

1. Organization and Business

The Company is a clinical and preclinical stage oncology focused RNAi nanoparticle drug development company utilizing a novel technology that achieves systemic delivery of antisense drug substances for target specific protein inhibition for any gene product that is over-expressed in disease. The Company’s drug delivery and antisense technology, called DNAbilize[®], is a platform that uses P-ethoxy, which is a deoxyribonucleic acid (DNA) backbone modification that is intended to protect the DNA from destruction by the body’s enzymes *in vivo*, incorporated inside of a neutral charge lipid bilayer. The Company believes this combination allows for high efficiency loading of antisense DNA into non-toxic, cell-membrane-like structures for delivery of the antisense drug substance into cells. *In vivo*, the DNAbilize[®] delivered antisense drug substances are systemically distributed throughout the body to allow for reduction or elimination of targeted proteins in blood diseases and solid tumors. DNAbilize[®] is a registered trademark of the Company.

Using DNAbilize[®] as a platform for drug development and manufacturing, we currently have three antisense drug candidates in development to treat a total of five different disease indications. Our lead drug candidate, prexigebersen (pronounced prex’ i je ber’ sen), is in the efficacy portion of a Phase 2 clinical trial for acute myeloid leukemia (AML) in combination with low-dose cytarabine (LDAC). On April 3, 2018, we announced that interim data from the efficacy portion of the Phase 2 clinical trial for AML demonstrated that the combination therapy continues to be well-tolerated and has shown to date in this study early anti-leukemic activity in nearly 50% of evaluable AML patients, including four patients with complete responses and four with stable disease. On August 27, 2018, we announced that the Company commenced Stage 2 of the efficacy portion of the Phase 2 clinical trial for AML with a dosing schedule that administers a greater amount of prexigebersen prior to treatment with LDAC and includes a cohort of patients who will be treated with a combination of prexigebersen and decitabine. In addition, a Phase 1b clinical trial of prexigebersen, which is the safety segment of a Phase 2 clinical trial, for blast phase and accelerated phase chronic myelogenous leukemia (CML) is open for enrollment. Prexigebersen is also in preclinical studies for solid tumors, including breast cancer and ovarian cancer.

Our second drug candidate, Liposomal Bcl-2 (“BP1002”), targets the protein Bcl-2, which is responsible for driving cell survival in up to 60% of all cancers. We are currently preparing an Investigational New Drug (IND) application for BP1002 in addition to completing additional IND enabling studies. We intend to initiate a Phase 1 clinical trial of BP1002 in refractory or relapsed lymphoma patients once we receive approval from the U.S. Food and Drug Administration (FDA).

Our third drug candidate, Liposomal Stat3 (“BP1003”), targets the Stat3 protein and is currently in preclinical development in a pancreatic patient-derived tumor model. Previous preclinical models have shown BP1003 to successfully penetrate pancreatic tumors and to significantly enhance the efficacy of standard frontline treatments. We intend to initiate IND enabling studies of BP1003 in 2019.

Bio-Path Subsidiary was founded in May 2007 as a Utah corporation. In February 2008, Bio-Path Subsidiary completed a reverse merger with Ogden Golf Co. Corporation, a public company traded over the counter that had no current operations. The name of Ogden Golf was changed to Bio-Path Holdings, Inc. and the directors and officers of Bio-Path, Inc. became the directors and officers of Bio-Path Holdings, Inc. The Company’s operations to date have been limited to organizing and staffing the Company, acquiring, developing and securing its technology and undertaking product development for a limited number of product candidates.

In June 2015, the Company established an “at the market” (“ATM”) program through which it may offer and sell up to \$25.0 million of its common stock from time to time, at Bio-Path’s discretion, through an investment banking firm, acting as sales agent. Sales of Bio-Path common stock under the ATM program will be made directly on or through The Nasdaq Capital Market, among other methods. The ATM program may be terminated by either the investment banking firm or the Company upon ten days’ notice. We are subject to certain restrictions on our ability to offer and sell shares of our common stock under the ATM program. To date, the Company has not offered or sold any shares of its common stock under the ATM program.

In June 2016, the Company entered into a securities purchase agreement with certain healthcare focused institutional investors pursuant to which the Company agreed to sell an aggregate of 588,235 shares of the Company’s common stock and warrants (the “2016 Registered Warrants”) to purchase up to 294,118 shares of the Company’s common stock for gross proceeds of approximately \$10.0 million (the “2016 Registered Direct Offering”). The 2016 Registered Direct Offering closed on July 5, 2016. The Company also issued warrants (the “2016 Placement Warrants,” and together with the 2016 Registered Warrants, the “2016 Warrants”) to purchase up to 25,000 shares of the Company’s common stock in a private placement to H.C. Wainwright & Co., LLC and its designees as compensation for its services as a placement agent in connection with the 2016 Registered Director Offering. The net proceeds to the Company from the 2016 Registered Direct Offering, after deducting the placement agent’s fees and expenses and the Company’s offering expenses, and excluding the proceeds from the exercise of the warrants issued in the offering, were approximately \$9.3 million. These proceeds were partially offset by additional financing costs incurred of \$0.3 million.

On May 21, 2017, the Company entered into Warrant Exercise Agreements (the “Exercise Agreements”) with certain holders (the “Exercising Holders”) of the 2016 Warrants and warrants to purchase shares of common stock that we issued in January 2014 (the “2014 Warrants,” and together with the 2016 Warrants, the “Original Warrants”). The Exercising Holders owned, in the aggregate, Original Warrants exercisable for 441,176 shares of our common stock. Pursuant to the Exercise Agreements, the Exercising Holders and the Company agreed that the Exercising Holders would exercise their Original Warrants with respect to 430,000 shares of our common stock underlying such Original Warrants for a reduced exercise price equal to \$3.80 per share (the “Reduced Exercise Price”). The Exercising Holders also subsequently exercised their Original Warrants for the remaining 11,176 shares of our common stock underlying such Original Warrants for the Reduced Exercise Price. In connection with the execution of the Exercise Agreements, we issued to each Exercising Holder a new warrant (each, a “New Warrant”) to purchase shares of our common stock equal to the number of shares of our common stock received by such Exercising Holder upon exercise of such Exercising Holder’s Original Warrants. The terms of the New Warrants are substantially similar to the terms of the Original Warrants, except that the New Warrants (i) became exercisable immediately upon issuance for a period of five years from the closing date of the Exercise Agreements; (ii) have an exercise price equal to \$6.00 per share and (iii) included revised language substantially similar to the language in the Warrant Amendments described below regarding fundamental transactions and net cash settlement. As noted below, this modified language results in the New Warrants qualifying for equity treatment on the Company’s Consolidated Balance Sheet. The net proceeds to the Company from the exercise of the New Warrants by the Exercising Holders, after deducting financial advisory fees and expenses and our offering expenses, were approximately \$1.5 million.

On June 13, 2017, the Company entered into amendments (the “Warrant Amendments”) with holders (the “Holders”) of the remaining 2016 Warrants, which amended the terms of their 2016 Warrants exercisable for 127,941 shares of our common stock. The Warrant Amendments provide that (i) the Holders’ right to require the Company to purchase the outstanding warrants upon the occurrence of certain fundamental transactions will not apply if the fundamental transaction is a result of a transaction that has not been approved by the Board of Directors and (ii) in the event the Company does not have an effective registration statement registering the issuance of the underlying shares of our common stock to the Holders, there is no circumstance that would require the Company to net cash settle the outstanding warrants. As such, the changes made in the Warrant Amendments allow for equity treatment of the remaining 2016 Warrants. As a result of the Exercise Agreements and the Warrant Amendments, the Company’s Warrant Liability was extinguished, allowing the New Warrants and the remaining 2016 Warrants, as amended, to be treated as equity for all filings beginning with the quarter ended June 30, 2017.

The Exercise Agreements for the 2014 Warrants resulted in the holders receiving \$1.0 million in incremental value over the value of the warrants at the exchange date. This incremental value was recorded as a deemed dividend in additional paid-in capital due to the absence of retained earnings and increased the net loss available to common stockholders on the Consolidated Statements of Operations. The Exercise Agreements for the 2016 Warrants resulted in warrants with a fair value of \$0.4 million being extinguished and resulted in the recognition of a loss on extinguishment of warrants of \$0.4 million. Additionally, the Warrant Amendments resulted in the reclassification of the remaining 2016 Warrants with a fair value of \$0.2 million from liability presentation to equity treatment on the Consolidated Balance Sheet.

On November 3, 2017, we entered into a securities purchase agreement with certain investors pursuant to which we agreed to sell an aggregate of 1,333,333 shares of our common stock and warrants to purchase up to 666,667 shares of our common stock for gross proceeds of approximately \$4.0 million under our effective shelf registration statement on Form S-3 (File No. 333-2152051) (the “2017 Registered Direct Offering”). We also issued warrants to purchase up to 16,000 shares of common stock in a private placement to Roth Capital Partners, LLC as compensation for its services as a placement agent in connection with the 2017 Registered Direct Offering. The 2017 Registered Direct Offering closed on November 6, 2017. The net proceeds to the Company from the 2017 Registered Direct Offering, after deducting the placement agent’s fees and expenses and our offering expenses, and excluding the proceeds, if any, from the exercise of the warrants issued in the offering, were approximately \$3.6 million.

On February 8, 2018, we effected a reverse stock split of our outstanding shares of common stock at a ratio of 1-for-10, and our common stock began trading on the split-adjusted basis on The Nasdaq Capital Market at the commencement of trading on February 9, 2018. All common stock share and per share amounts in this Quarterly Report on Form 10-Q have been adjusted to give effect to the 1-for-10 reverse stock split.

On September 20, 2018, we entered into a securities purchase agreement with certain investors pursuant to which we agreed to sell an aggregate of 1,969,077 shares of our common stock and pre-funded warrants to purchase up to 292,461 shares of our common stock for gross proceeds of approximately \$1.5 million under our effective shelf registration statement on Form S-3 (File No. 333-215205), which became effective on January 9, 2017 (the “2018 Registered Direct Offering”). In a concurrent private placement, we also agreed pursuant to the securities purchase agreement to issue to such investors Series A warrants to purchase up to 2,261,538 shares of our common stock (the “2018 Private Placement”). Additionally, we issued warrants to purchase up to 135,692 shares of our common stock in a private placement to H.C. Wainwright & Co., LLC as compensation for its services as a placement agent in connection with the 2018 Registered Direct Offering and the 2018 Private Placement. The 2018 Registered Direct Offering and the 2018 Private Placement closed on September 25, 2018. The net proceeds to the Company from the offerings, after deducting the placement agent’s fees and expenses, our offering expenses, and excluding the proceeds, if any, from the exercise of the warrants issued in the offerings, were approximately \$1.2 million.

As of September 30, 2018, the Company had \$2.3 million in cash on hand, compared to \$6.0 million as of December 31, 2017. Management has completed its analysis of the Company's cash needs and determined that it does not have enough cash on hand to meet obligations and fund operations for the next 12 months from the report date included herein. We expect to finance our foreseeable cash requirements through cash on hand, debt financings and public or private equity offerings. Additionally, we may seek collaborations and license arrangements for our drug candidates. We may seek to access the public or private equity markets whenever conditions are favorable. We currently have no lines of credit or other arranged access to debt financing. If the Company is unable to obtain funding due to unfavorable terms or market conditions, management has determined that it can reduce spending on its day-to-day operations, sell laboratory assets and temporarily delay planned activities if needed. However, these conditions raise substantial doubt about the Company's ability to continue as a going concern. The Company's ability to continue as a going concern is dependent upon obtaining funding within the next 12 months to meet its planned obligations and pay its liabilities.

As the Company has not begun its planned principal operations of commercializing a product candidate, the Company's activities are subject to significant risks and uncertainties, including the potential requirement to secure additional funding, the outcome of the Company's clinical trials, and failing to operationalize the Company's current drug candidates before another company develops similar products.

2. Recent Accounting Pronouncements

In May 2014, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") No. 2014-09, *Revenue from Contracts with Customers*. The new standard provides comprehensive guidance for recognizing revenue as goods or services are delivered to the customer in an amount that is expected to be earned from those same goods or services. ASU 2014-09 was scheduled to be effective for annual reporting periods beginning after December 15, 2016, and early adoption was not permitted. In August 2015, the FASB issued ASU No. 2015-14, "Revenue from Contracts with Customers: Deferral of Effective Date", which defers the effective date of ASU 2014-09 by one year. ASU 2014-19 is now effective for annual periods beginning after December 15, 2017, including interim periods within that reporting period. Early application is permitted only for annual periods beginning after December 15, 2016, including interim periods within that reporting period and allows for adoption using a full retrospective method, or a modified retrospective method. The Company adopted the standard on January 1, 2018 using the modified retrospective method of adoption and determined that it did not have a material effect on our consolidated financial statements as the Company currently does not have significant contracts with customers.

In February 2016, the FASB issued ASU No. 2016-02, *Leases*. The new standard establishes a right-of-use ("ROU") model that requires a lessee to record a ROU asset and a lease liability on the balance sheet for all leases with terms longer than 12 months. Leases will be classified as either finance or operating, with classification affecting the pattern of expense recognition in the income statement. The new standard is effective for fiscal years beginning after December 15, 2018, including interim periods within those fiscal years. A modified retrospective transition approach is required for lessees for capital and operating leases existing at, or entered into after, the beginning of the earliest comparative period presented in the financial statements, with certain practical expedients available. Management has evaluated the adoption of the new standard and determined that it will not have a material impact on the Company's consolidated financial statements.

In May 2017, the FASB issued ASU No. 2017-09, *Compensation-Stock Compensation: Scope of Modification Accounting*. The new standard requires an entity to apply modification accounting provisions if the value, vesting conditions or classification of the award changes. The new guidance must be applied on a prospective basis and is effective for fiscal years beginning after December 15, 2017, including interim periods within those fiscal years, with early adoption permitted. The Company adopted the standard on January 1, 2018 on a prospective basis and determined that it did not have a material effect on our consolidated financial statements.

In June 2018, the FASB issued ASU No. 2018-07, *Stock Compensation (Topic 718): Improvements to Nonemployee Share-Based Payment Accounting*. The new standard simplifies the accounting for share-based payments to nonemployees by aligning it with the accounting for share-based payments to employees. Equity-classified share-based payments issued to nonemployees will be measured on the grant date instead of being remeasured through the performance completion date as required under the current guidance. The new standard is effective for fiscal years beginning after December 15, 2018, including interim periods within those fiscal years, with early adoption permitted. The Company early adopted this standard effective June 30, 2018 and notes the adoption did not have a significant impact on the Company's consolidated financial statements.

In August 2018, the SEC adopted the final rule under SEC Release No. 33-10532, *Disclosure Update and Simplification*, amending certain disclosure requirements that were redundant, duplicative, overlapping, outdated or superseded. In addition, the amendments expanded the disclosure requirements on the analysis of stockholders' equity for interim financial statements. Under the amendments, an analysis of changes in each caption of stockholders' equity presented in the balance sheet must be provided in a note or separate statement. The analysis should present a reconciliation of the beginning balance to the ending balance of each period for which a statement of comprehensive income is required to be filed. The Company anticipates its first presentation of changes in shareholders' equity will be included in its Form 10-Q for the first quarter of fiscal year 2019.

Management has reviewed all other recently issued pronouncements and has determined they will have no material impact on the Company's consolidated financial statements.

3. Prepaid Drug Product for Testing

Advance payments, including nonrefundable amounts, for goods or services that will be used or rendered for future clinical development activities are deferred and capitalized. Such amounts will be recognized as an expense as the related goods are delivered or the related services are performed. The Company made payments to its contract drug manufacturing and raw material suppliers in late 2016 and through 2017 totaling \$1.1 million pursuant to drug supply contracts for the manufacture and delivery of prexigebersen for testing in Phase 2 clinical trials and Bcl-2 in preparation for a Phase 1 clinical trial. This amount was carried on the Balance Sheet as of December 31, 2017 at cost as Prepaid Drug Product for Testing. The Company recognized certain expenses and incurred additional installment costs during 2018 with advanced payments totaling \$0.3 million, which are carried on the Balance Sheet as of September 30, 2018 as Prepaid Drug Product for Testing (See Note 9).

4. Other Current Assets

As of September 30, 2018, Other Current Assets included prepaid expenses of \$0.3 million, comprised primarily of prepaid insurance of \$0.2 million and prepayments made to the Company's clinical research organizations for our clinical trials for prexigebersen in AML and CML of \$0.1 million. As of December 31, 2017, Other Current Assets included prepaid expenses of \$0.4 million.

5. Accounts Payable

As of September 30, 2018, Current Liabilities included accounts payable of \$0.5 million, comprised primarily of amounts owed for clinical trial costs, legal fees and external research expenses. As of December 31, 2017, Current Liabilities included accounts payable of \$0.1 million.

6. Accrued Expenses

As of September 30, 2018, Current Liabilities included accrued expenses of \$0.5 million, comprised primarily of employee vacation and bonus expenses of \$0.3 million, an annual license maintenance fee of \$0.1 million and accrued preclinical expenses of \$0.1 million. As of December 31, 2017, Current Liabilities included accrued expense of \$0.7 million, comprised primarily of accrued clinical and preclinical expenses of \$0.4 million, employee vacation and bonus expenses of \$0.1 million, an annual license maintenance fee of \$0.1 million and other accrued expenses of \$0.1 million.

7. Stockholders' Equity

Stockholders' Equity totaled \$3.0 million as of September 30, 2018 compared to \$8.1 million as of December 31, 2017. There were 13,309,833 shares of common stock issued and outstanding as of September 30, 2018. There were no preferred shares outstanding as of September 30, 2018.

8. Stock-Based Compensation

The 2017 Plan – On December 21, 2017, the Company's stockholders approved the Bio-Path Holdings, Inc. 2017 Stock Incentive Plan (the "2017 Plan"), which replaced the First Amended 2007 Stock Incentive Plan, as amended (the "2007 Plan"). The 2007 Plan expired by its terms in January 2018, and no awards were made under the 2007 Plan from the approval of the 2017 Plan on December 21, 2017 until the expiration of the 2007 Plan. The 2017 Plan provides for the grant of Incentive Stock Options, Non-Qualified Stock Options, Restricted Shares, Restricted Share Units, Stock Appreciation Rights, Performance-Based Awards and other stock-based awards, or any combination of the foregoing to the Company's employees, non-employee directors and consultants. As of December 31, 2017, the total number of shares reserved and available for grant and issuance pursuant to the 2017 Plan was 1,200,000 shares, subject to the terms of the 2017 Plan. Under the 2017 Plan, the exercise price of awards is determined by the Board of Directors or the compensation committee of the Board of Directors, and for options intended to qualify as qualified Incentive Stock Options, may not be less than the fair market value as determined by the closing stock price at the date of the grant. Each option and award under the 2017 Plan shall vest and expire as determined by the Board of Directors or the compensation committee. Options expire no later than ten years from the date of grant. All grants provide for accelerated vesting if there is a change of control, as defined in the 2017 Plan.

Stock-based compensation expense was \$0.2 million for both the three months ended September 30, 2018 and September 30, 2017. Of these amounts, stock-based compensation expense for personnel involved in the Company's general and administrative activities for both the three months ended September 30, 2018 and September 30, 2017 was \$0.1 million. Stock-based compensation expense for personnel involved in the Company's research and development activities for the three months ended September 30, 2018 and September 30, 2017 was \$22,000 and \$49,000, respectively.

Stock-based compensation expense was \$0.4 million and \$0.7 million for the nine months ended September 30, 2018 and September 30, 2017, respectively. Of these amounts, stock-based compensation expense for personnel involved in the Company's general and administrative activities for both the nine months ended September 30, 2018 and September 30, 2017 was \$0.4 million. Stock-based compensation expense for personnel involved in the Company's research and development activities for the nine months ended September 30, 2018 and September 30, 2017 was \$0.1 million and \$0.3 million, respectively.

The Company utilized the Black-Scholes valuation model for estimating the fair value of the stock options granted, with the following weighted-average assumptions for options granted in the nine months ended September 30, 2018 and 2017:

	<u>2018</u>	<u>2017</u>
Risk-free interest rate	2.70%	2.06%
Expected volatility	90%	99%
Expected term in years	6.1	6.1
Dividend yield	-%	-%

The following summary represents option activity under the Company's stock-based compensation plan for the nine months ended September 30, 2018:

	<u>Options</u> <u>(in thousands)</u>	<u>Weighted- Average Exercise Price</u>
Outstanding at December 31, 2017	642	\$ 11.60
Granted	398	1.73
Cancelled	(4)	11.88
Expired	(39)	10.61
Outstanding at September 30, 2018	997	7.71
Exercisable at September 30, 2018	<u>554</u>	<u>\$ 11.09</u>

As of September 30, 2018, the aggregate intrinsic value of outstanding stock options was none. The aggregate intrinsic value represents the total pretax intrinsic value (the difference between the Company's closing stock price on September 30, 2018 and the exercise price, multiplied by the number of in-the-money options) that would have been received by the option holders had all option holders exercised their options on September 30, 2018. This amount changes based on the fair market value of the Company's stock.

As of September 30, 2018, unamortized stock-based compensation expense for all outstanding options was \$0.9 million, which is expected to be recognized over a weighted average vesting period of 2.1 years.

9. Commitments and Contingencies

Technology License – The Company has negotiated exclusive licenses from MD Anderson to clinically develop liposomal antisense and siRNA drug products. The siRNA license was subsequently dropped. These licenses require, among other things, the Company to reimburse MD Anderson for ongoing patent expense and an annual license maintenance fee. The annual license maintenance fee attributable to the License Agreement totaling \$0.1 million was included in Current Liabilities as of September 30, 2018 and December 31, 2017.

Operating Lease – In April 2014, the Company entered into a five-year lease agreement for office space, which it occupied as of August 2014. The remaining lease payments due under this lease as of September 30, 2018 are \$0.1 million.

In April 2016, the Company entered into a three-year lease agreement for lab space located in Bellaire, Texas. The term of lease began on May 1, 2016 and terminates on April 30, 2019 and will require Bio-Path to pay \$2,500 per month over the term of the lease. The remaining lease payments due under this lease as of September 30, 2018 are \$17,500.

Drug Supplier Project Plan – The amounts paid for manufacture of the Company's Grb2 drug substance, prexigebersen, Bcl-2 drug substance and BP1002 drug product that have not been expensed total \$0.3 million and are carried on the balance sheet as of September 30, 2018 as Prepaid Drug Product for Testing (See Note 3). Total commitments for the Company's drug supplier project plan are \$1.7 million as of September 30, 2018, comprised of \$1.0 million to the manufacturer of prexigebersen and BP1002, \$0.6 million for manufacture of our drug substance and \$0.1 million for manufacturing development. We expect to incur \$1.0 million of these commitments over the next 12 months.

ITEM 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

When you read this Item of this Quarterly Report on Form 10-Q, it is important that you also read the unaudited financial statements and related notes included elsewhere in this Quarterly Report on Form 10-Q and our audited financial statements and notes thereto included in our Annual Report on Form 10-K as of the fiscal year ended December 31, 2017. This Quarterly Report on Form 10-Q contains forward-looking statements that involve risks and uncertainties, such as statements of our plans, objectives, expectations, and intentions. We use words such as "anticipate," "estimate," "plan," "project," "continuing," "ongoing," "expect," "believe," "intend," "may," "will," "should," "could," and similar expressions to identify forward-looking statements. Our actual results could differ materially from those anticipated in these forward-looking statements for many reasons, including the matters discussed in "Item 1A. Risk Factors" to Part I of our Annual Report on Form 10-K as of the fiscal year ended December 31, 2017 and other risks and uncertainties discussed in filings made with the SEC. See "Cautionary Note Regarding Forward-Looking Statements" in this Quarterly Report on Form 10-Q for additional discussion regarding risks associated with forward-looking statements.

Overview

We are a clinical and preclinical stage oncology focused RNAi nanoparticle drug development company utilizing a novel technology that achieves systemic delivery for target specific protein inhibition for any gene product that is over-expressed in disease. Our drug delivery and antisense technology, called DNAbilize[®], is a platform that uses P-ethoxy, which is a deoxyribonucleic acid (DNA) backbone modification that is intended to protect the DNA from destruction by the body's enzymes when circulating *in vivo*, incorporated inside of a neutral charged lipid bilayer. We believe this combination allows for high efficiency loading of antisense DNA into non-toxic, cell-membrane-like structures for delivery of the antisense drug substance into cells. *In vivo*, the DNAbilize[®] delivered antisense drug substances are systemically distributed throughout the body to allow for reduction or elimination of proteins in blood diseases and solid tumors. DNAbilize[®] is a registered trademark of the Company.

Using DNAbilize[®] as a platform for drug development and manufacturing, we currently have three antisense drug candidates in development to treat a total of five different disease indications. Our lead drug candidate, prexigebersen (pronounced prex' i je ber' sen), is in the efficacy portion of a Phase 2 clinical trial for acute myeloid leukemia (AML) in combination with low-dose cytarabine (LDAC). On April 3, 2018, we announced that interim data from Stage 1 of the efficacy portion of the Phase 2 clinical trial for AML demonstrated that the combination therapy continues to be well-tolerated and has shown early anti-leukemic activity in nearly 50% of evaluable AML patients, including four patients with complete remission and four with stable disease to date in this study. On August 27, 2018, we announced that the Company commenced Stage 2 of the efficacy portion of the Phase 2 clinical trial for AML with a dosing schedule that administers a greater amount of prexigebersen prior to treatment with LDAC and includes a cohort of patients who will be treated with a combination of prexigebersen and decitabine. In addition, a Phase 1b clinical trial of prexigebersen, which is the safety segment of a Phase 2 clinical trial, for blast phase and accelerated phase chronic myelogenous leukemia is open for enrollment. Prexigebersen is also in preclinical studies for solid tumors, including breast cancer and ovarian cancer.

Our second drug candidate, Liposomal Bcl-2 ("BP1002"), targets the protein Bcl-2, which is responsible for driving cell survival in up to 60% of all cancers. We are currently preparing an Investigational New Drug (IND) application for BP1002 in addition to completing additional IND enabling studies. We intend to initiate a Phase 1 clinical trial of BP1002 in refractory or relapsed lymphoma patients once we receive approval from the U.S. Food and Drug Administration (FDA).

Our third drug candidate, Liposomal Stat3 ("BP1003"), targets the Stat3 protein and is currently in preclinical development in a pancreatic patient-derived tumor model. Previous preclinical models have shown BP1003 to successfully penetrate pancreatic tumors and to significantly enhance the efficacy of standard frontline treatments. Our lead indication for BP1003 is pancreatic cancer due to the severity of this disease and the lack of effective, life-extending treatments. We intend to initiate IND enabling studies of BP1003 in 2019.

Our DNAbilize[®] technology is available for out-licensing. We intend to apply our drug delivery technology template to new disease-causing protein targets as a means to develop new liposomal antisense drug candidates. A new product identification template was recently approved by Bio-Path that defines a process of scientific, preclinical, commercial and intellectual property evaluation of potential new drug candidates for inclusion into our drug product development pipeline. As we expand, we will look at indications where a systemic delivery is needed and antisense can be used to slow, reverse or cure a disease, either alone or in combination with another drug. On July 19, 2017, we announced that the United States Patent and Trademark Office (“USPTO”) issued a notice of allowance for claims related to DNAbilize[®], including its use in the treatment of cancers, autoimmune diseases and infectious diseases.

We have certain intellectual property as the basis for our current drug products in clinical development, prexigebersen and BP1002. We also currently maintain an exclusive license agreement (the “License Agreement”) with The University of Texas, MD Anderson Cancer Center (“MD Anderson”), under which we licensed from MD Anderson certain technology relating to the original delivery technology platform. We are developing RNAi antisense nanoparticle drug candidates based on our own patented technology to treat cancer and autoimmune disorders where targeting a single protein may be advantageous and result in reduced adverse effects as compared to small molecule inhibitors with off-target and non-specific effects. We have composition of matter and method of use intellectual property for the design and manufacture of neutral charged DNA-liposome complexes.

On April 3, 2018, we announced that interim data from Stage 1 of our Phase 2 study of prexigebersen in combination with LDAC (“BP1001-201”) for the treatment of AML demonstrated that the combination therapy continues to be well-tolerated and has shown to date in this study early anti-leukemic activity in nearly 50% of evaluable AML patients, including four patients with complete remission and four with stable disease. The open-label Phase 2 study is evaluating the efficacy and safety of prexigebersen in conjunction with LDAC. The primary objective of the study is to determine whether the combination of prexigebersen and LDAC provides greater efficacy than what would be expected with LDAC alone in this de novo patient population. The study had a pre-determined decision point at 19 evaluable patients in which the study would be terminated if less than five patients responded and the study would be expanded to 54 patients if five or more patients responded.

The interim analysis from Stage 1 was performed on 17 evaluable patients instead of 19, since criteria to move to the next steps in the study had been met. Of the 17 evaluable patients, there were four patients who achieved complete responses and four patients with stable disease including one patient who achieved a morphologic leukemia free state and two patients who had significantly reduced bone marrow blasts. In total, 47% of the evaluable patients showed some form of response, including stable disease, to the combination treatment. The average age of patients in the study was 73.5 years old.

On August 27, 2018, we announced that the Company commenced Stage 2 of the efficacy portion of the Phase 2 clinical trial for AML. Based on the recommendations of the principal investigators of the study, we amended the protocol to change the dosing schedule in Stage 2 to that used in the Phase 1b study in relapsed and refractory AML patients as announced in April 2018. In the Phase 1b study, a greater amount of prexigebersen was administered prior to LDAC treatment starting at day 10 versus LDAC treatment starting on day four as was the case in Stage 1 of the current Phase 2 study. In addition, the investigators endorsed the inclusion of a decitabine cohort based on relatively new and positive data with this compound. Finally, the Company is in the process of adding three new sites in Europe to enhance patient enrollment. We currently plan to perform an interim analysis of each cohort once approximately 19 evaluable patients are reached in the cohort.

On September 20, 2018, we entered into a securities purchase agreement with certain investors pursuant to which we agreed to sell an aggregate of 1,969,077 shares of our common stock and pre-funded warrants to purchase up to 292,461 shares of our common stock for gross proceeds of approximately \$1.5 million under our shelf registration statement on Form S-3 (File No. 333-215205), which became effective on January 9, 2017 (the “2018 Registered Direct Offering”). In a concurrent private placement, we also agreed pursuant to the securities purchase agreement to issue to such investors Series A warrants to purchase up to 2,261,538 shares of our common stock (the “2018 Private Placement”). Additionally, we issued warrants to purchase up to 135,692 shares of our common stock in a private placement to H.C. Wainwright & Co., LLC as compensation for its services as a placement agent in connection with the 2018 Registered Direct Offering and the 2018 Private Placement. The 2018 Registered Direct Offering and the 2018 Private Placement closed on September 25, 2018. The net proceeds to the Company from the offerings, after deducting the placement agent’s fees and expenses, our offering expenses, and excluding the proceeds, if any, from the exercise of the warrants issued in the offerings, were approximately \$1.2 million.

As of September 30, 2018, we had an accumulated deficit of \$45.8 million. Our net loss was \$3.1 million and \$2.5 million for the three months ended September 30, 2018 and 2017, respectively. Our net loss was \$6.7 million and \$4.9 million for the nine months ended September 30, 2018 and 2017, respectively. We expect to continue to incur significant operating losses and we anticipate that our losses may increase substantially as we expand our drug development programs and commercialization efforts. To achieve profitability, we must enter into license or development agreements with third parties, or successfully develop and obtain regulatory approval for one or more of our drug candidates and effectively commercialize any drug candidates we develop. In addition, if we obtain regulatory approval of one or more of our drug candidates, we expect to incur significant commercialization expenses related to product sales, marketing, manufacturing and distribution. Even if we succeed in developing and commercializing one or more of our drug candidates, we may not be able to generate sufficient revenue and we may never be able to achieve or sustain profitability. We expect to finance our foreseeable cash requirements through cash on hand, cash from operations, debt financings and public or private equity offerings. We may seek to access the public or private equity markets whenever conditions are favorable; however, there can be no assurance that we will be able to raise additional capital when needed or on terms that are favorable to us, if at all. Additionally, we may seek collaborations and license arrangements for our drug candidates. We currently have no lines of credit or other arranged access to debt financing.

Company History and Available Information

We were originally incorporated in May 2000 as a Utah corporation under the name Ogden Golf Co. Corporation, but terminated our retail golf store operations in December 2006. In February 2008, we completed a reverse merger with Bio-Path Subsidiary. The name of Ogden Golf Co. Corporation was changed to Bio-Path Holdings, Inc. and the directors and officers of Bio-Path Subsidiary became the directors and officers of Bio-Path Holdings, Inc. On March 10, 2014, our common stock ceased trading on the OTCQX and commenced trading on The Nasdaq Capital Market under the ticker symbol "BPTH." Effective December 31, 2014, we changed our state of incorporation from Utah to Delaware through a statutory conversion pursuant to the Utah Revised Business Corporation Act and the Delaware General Corporation Law. Our principal executive offices are located at 4710 Bellaire Boulevard, Suite 210, Bellaire, Texas 77401, and our telephone number is (832) 742-1357.

On February 8, 2018, we effected a reverse stock split of our outstanding shares of common stock at a ratio of 1-for-10, and our common stock began trading on the split-adjusted basis on The Nasdaq Capital Market at the commencement of trading on February 9, 2018. All common stock share and per share amounts in this Quarterly Report on Form 10-Q have been adjusted to give effect to the 1-for-10 reverse stock split.

Recent Accounting Pronouncements

See Note 2 to the Unaudited Condensed Consolidated Financial Statements for a discussion of the impact of a new accounting standards update on the Company's condensed consolidated financial statements.

Financial Operations Overview

Revenue

We have not generated significant revenues to date. Our ability to generate revenues from our drug candidates will depend heavily on the successful development and eventual commercialization of our drug candidates.

In the future, we may generate revenue from a combination of product sales, third-party grants, service agreements, strategic alliances and licensing arrangements. We expect that any revenue we generate will fluctuate due to the timing and amount of services performed, milestones achieved, license fees earned and payments received upon the eventual sales of our drug candidates, in the event any are successfully commercialized. If we fail to complete the development of any of our drug candidates or obtain regulatory approval for them, our ability to generate future revenue will be adversely affected.

Research and development expenses

Research and development expenses consist of costs associated with our research activities, including the development of our drug candidates. Our research and development expenses consist of:

- expenses related to research and development personnel, including salaries and benefits, travel and stock-based compensation;
- external research and development expenses incurred under arrangements with third parties, such as contract research organizations, clinical investigative sites, laboratories, manufacturing organizations and consultants;
- license fees, including maintenance fees and patent expense paid to MD Anderson in connection with the License Agreement; and
- costs of materials used during research and development activities.

Costs and expenses that can be clearly identified as research and development are charged to expense as incurred in accordance with generally accepted accounting policies (“GAAP”). Advance payments, including nonrefundable amounts, for goods or services that will be used or rendered for future research and development activities are deferred and capitalized. Such amounts will be recognized as an expense as the related goods are delivered or the related services are performed. If the goods will not be delivered, or services will not be rendered, then the capitalized advance payment is charged to expense.

We expect research and development expenses associated with the completion of the associated clinical trials to be substantial and to increase over time. The successful development of our drug candidates is highly uncertain. At this time, we cannot reasonably estimate or know the nature, timing and estimated costs of the efforts that will be necessary to complete development of our drug candidates or the period, if any, in which material net cash inflows from our drug candidates may commence. This is due to the numerous risks and uncertainties associated with developing drugs, including the uncertainty of:

- the rate of progress, results and costs of completion of ongoing clinical trials of our drug candidates;
- the size, scope, rate of progress, results and costs of completion of any potential future clinical trials and preclinical trials of our drug candidates that we may initiate;
- competing technological and market developments;
- the performance of third-party manufacturers and suppliers;
- the ability of our drug candidates, if they receive regulatory approval, to achieve market success; and
- disputes or other developments relating to proprietary rights, including patents, litigation matters and our ability to obtain patent protection for our drug candidates.

A change in the outcome of any of these variables with respect to the development of a drug candidate could mean a significant change in the costs and timing associated with the development of that drug candidate. For example, if the FDA or other regulatory authority were to require us to conduct clinical trials beyond those which we currently anticipate will be required for the completion of clinical development of a drug candidate or if we experience significant delays in enrollment in any clinical trials, we could be required to expend significant additional financial resources and time on the completion of clinical development.

General and administrative expenses

Our general and administrative expenses consist primarily of salaries and benefits for management and administrative personnel, professional fees for legal, accounting and other services, travel costs and facility-related costs such as rent, utilities and other general office expenses.

Results of Operations

Comparisons of the Three Months Ended September 30, 2018 to the Three Months Ended September 30, 2017

Research and Development Expense. Our research and development expense for the three months ended September 30, 2018 was \$2.3 million, an increase of \$0.8 million compared to the three months ended September 30, 2017. The increase in research and development expense was primarily due to costs associated with the release of drug material for our Phase 2 clinical trials for prexigebersen in AML and CML. The following table sets forth our research and development expenses (in thousands):

	Three Months Ended September 30,	
	2018	2017
Research and development expense	\$ 2,320	\$ 1,534
Non-cash stock-based compensation expense	22	49
Total research and development expense	<u>\$ 2,342</u>	<u>\$ 1,583</u>

General and Administrative Expense. Our general and administrative expense for the three months ended September 30, 2018 was \$0.7 million, a decrease of \$0.2 million compared to the three months ended September 30, 2017. The decrease in general and administrative expense was primarily due to decreased legal and audit fees. The following table sets forth our general and administrative expenses (in thousands):

	Three Months Ended September 30,	
	2018	2017
General and administrative expense	\$ 609	\$ 774
Non-cash stock-based compensation expense	131	119
Total general and administrative expense	<u>\$ 740</u>	<u>\$ 893</u>

Net Operating Loss. Our net loss from operations was \$3.1 million for the three months ended September 30, 2018, an increase of \$0.6 million compared to the three months ended September 30, 2017.

Net Loss. Our net loss for the three months ended September 30, 2018 was \$3.1 million, an increase of \$0.6 million compared to the three months ended September 30, 2017.

Net Loss per Share. Net loss per share, both basic and diluted, was \$0.27 per share for the three months ended September 30, 2018, compared to \$0.25 per share for the three months ended September 30, 2017. Net loss per share is calculated using the weighted average number of shares of common stock outstanding during the applicable periods and excludes stock options and warrants because they are antidilutive.

Comparisons of the Nine Months Ended September 30, 2018 to the Nine Months Ended September 30, 2017

Research and Development Expense. Our research and development expense for both the nine months ended September 30, 2018 and September 30, 2017 was \$4.1 million. The following table sets forth our research and development expenses (in thousands):

	Nine Months Ended September 30,	
	2018	2017
Research and development expense	\$ 4,042	\$ 3,790
Non-cash stock-based compensation expense	59	299
Total research and development expense	<u>\$ 4,101</u>	<u>\$ 4,089</u>

General and Administrative Expense. Our general and administrative expense for the nine months ended September 30, 2018 was \$2.6 million, a decrease of \$0.1 million compared to the nine months ended September 30, 2017. The decrease in general and administrative expense was primarily due to decreased audit fees. The following table sets forth our general and administrative expenses (in thousands):

	Nine Months Ended September 30,	
	2018	2017
General and administrative expense	\$ 2,222	\$ 2,332
Non-cash stock-based compensation expense	357	376
Total general and administrative expense	\$ 2,579	\$ 2,708

Net Operating Loss. Our net loss from operations was \$6.7 million for the nine months ended September 30, 2018, a decrease of \$0.1 million compared to the nine months ended September 30, 2017.

Change in Fair Value of Warrant Liability. The Company did not have a warrant liability for the nine months ended September 30, 2018. The change in fair value of the warranty liability for the nine months ended September 30, 2017 resulted in non-cash income of \$2.4 million.

Loss on Extinguishment of Warrant Liability. The Company did not have a warrant liability for the nine months ended September 30, 2018. The loss on extinguishment of the warranty liability for the nine months ended September 30, 2017 resulted in a non-cash loss of \$0.4 million.

Net Loss. Our net loss for the nine months ended September 30, 2018 was \$6.7 million, an increase of \$1.8 million compared to the nine months ended September 30, 2017.

Deemed Dividend Related to Warrant Conversion. The Company did not have a deemed dividend related to warrant conversion for the nine months ended September 30, 2018. The deemed dividend related to warrant conversion was \$1.0 million for the nine months ended September 30, 2017.

Net Loss Attributable to Common Stockholders. Our net loss attributable to common stockholders for the nine months ended September 30, 2018 was \$6.7 million, an increase of \$0.8 million compared to the nine months ended September 30, 2017.

Net Loss per Share. Net loss per share, both basic and diluted, was \$0.59 per share for the nine months ended September 30, 2018, compared to \$0.60 per share for the nine months ended September 30, 2017. Net loss per share is calculated using the weighted average number of shares of common stock outstanding during the applicable periods and excludes stock options and warrants because they are antidilutive.

Liquidity and Capital Resources

Overview

We have not generated significant revenues to date. Since our inception, we have funded our operations primarily through public and private offerings of our capital stock and other securities. We expect to finance our foreseeable cash requirements through cash on hand, cash from operations, debt financings and public or private equity offerings. We may seek to access the public or private equity markets whenever conditions are favorable; however, there can be no assurance that we will be able to raise additional capital when needed or on terms that are favorable to us, if at all. Additionally, we may seek collaborations and license arrangements for our drug candidates. We currently have no lines of credit or other arranged access to debt financing.

We had a cash balance of \$2.3 million as of September 30, 2018, compared to a cash balance of \$6.0 million as of December 31, 2017. We do not believe that our available cash at September 30, 2018 will be sufficient to fund our liquidity and capital expenditure requirements for the next 12 months. The Company's ability to continue as a going concern is dependent upon obtaining funding through one or more sources as described above within the next 12 months to meet its planned obligations and pay its liabilities.

Cash Flows

Operating Activities. Net cash used in operating activities for the nine months ended September 30, 2018 was \$4.8 million. Net cash used in operating activities consisted primarily of the net loss for the period of \$6.7 million, which was partially offset by a decrease in prepaid expenses and other current assets of \$0.9 million, stock-based compensation expense of \$0.4 million, amortization and depreciation expenses of \$0.3 million and an increase in current liabilities of \$0.2 million.

Investing Activities. Net cash used in investing activities for the nine months ended September 30, 2018 consisted of capital expenditures totaling \$17,000, which were related to research and development equipment purchases.

Financing Activities. Net cash provided by financing activities for the nine months ended September 30, 2018 consisted of \$1.2 million from the 2018 Registered Direct Offering and 2018 Private Placement, both as described below.

2017 Shelf Registration Statement

On December 20, 2016, we filed a shelf registration on Form S-3 with the SEC, which was declared effective by the SEC on January 9, 2017 (File No. 333-215205) (the “2017 Shelf Registration Statement”), at which time the offering of unsold securities under a previous shelf registration statement on Form S-3 filed with the SEC, which was declared effective by the SEC on January 13, 2014 (File No. 333-192102) (the “2014 Shelf Registration Statement”), was deemed terminated pursuant to Rule 415(a)(6) under the Securities Act. The 2017 Shelf Registration Statement was filed to register the offering, issuance and sale of (i) up to \$125.0 million of our common stock, preferred stock, warrants to purchase common stock or preferred stock or any combination thereof, either individually or in units, including offers and sales of our common stock under the Controlled Equity OfferingSM Sales Agreement (the “Sales Agreement”) with Cantor Fitzgerald & Co. (“Cantor Fitzgerald”) described below and (ii) up to 544,178 shares of our common stock pursuant to the exercise of warrants that were issued in a registered direct offering in 2014 and a registered direct offering in 2016. Because our public float is less than \$75 million, our ability to offer and sell any securities under the 2017 Shelf Registration Statement is currently limited pursuant to Instruction I.B.6 to Form S-3. For so long as the Company's public float is less than \$75 million, the aggregate market value of securities sold by the Company under the 2017 Shelf Registration Statement pursuant to Instruction I.B.6 to Form S-3 during any 12 consecutive months may not exceed one-third of the Company's public float. The foregoing does not constitute an offer to sell or the solicitation of an offer to buy securities, and shall not constitute an offer, solicitation or sale in any jurisdiction in which such offer, solicitation or sale would be unlawful prior to registration or qualification under the securities laws of that jurisdiction.

“At the Market” Offering

On June 24, 2015, we entered into the Sales Agreement with Cantor Fitzgerald, as sales agent, pursuant to which we may offer and sell, from time to time, through Cantor Fitzgerald, shares of our common stock. Sales of shares of common stock under the Sales Agreement will be made pursuant to the 2017 Shelf Registration Statement and a related prospectus filed with the SEC on January 10, 2017, for an aggregate offering price of up to \$25.0 million. Under the Sales Agreement, Cantor Fitzgerald may sell shares by any method deemed to be an “at the market” offering as defined in Rule 415 under the Securities Act. We will pay Cantor Fitzgerald a commission of 3.4% of the aggregate gross proceeds from each sale of shares under the Sales Agreement and have agreed to provide Cantor Fitzgerald with customary indemnification and contribution rights. We have also agreed to reimburse Cantor Fitzgerald for certain specified expenses. The Sales Agreement may be terminated by either Cantor Fitzgerald or the Company upon ten days' notice. We are subject to certain restrictions on our ability to offer and sell shares of our common stock under the Sales Agreement. To date, we have not offered or sold any shares of common stock under the Sales Agreement.

Warrant Exercises

On May 21, 2017, the Company entered into Warrant Exercise Agreements (the “Exercise Agreements”) with certain holders (the “Exercising Holders”) of warrants to purchase shares of common stock that we issued in June 2016 (the “2016 Warrants”) and warrants to purchase shares of common stock that we issued in January 2014 (the “2014 Warrants,” and together with the 2016 Warrants, the “Original Warrants”). The Exercising Holders owned, in the aggregate, Original Warrants exercisable for 441,176 shares of our common stock. Pursuant to the Exercise Agreements, the Exercising Holders and the Company agreed that the Exercising Holders would exercise their Original Warrants with respect to 430,000 shares of our common stock underlying such Original Warrants for a reduced exercise price equal to \$3.80 per share (the “Reduced Exercise Price”). The Exercising Holders also subsequently exercised their Original Warrants for the remaining 11,176 shares of our common stock underlying such Original Warrants for the Reduced Exercise Price. In connection with the execution of the Exercise Agreements, we issued to each Exercising Holder a new warrant (each, a “New Warrant”) to purchase shares of our common stock equal to the number of shares of our common stock received by such Exercising Holder upon exercise of such Exercising Holder’s Original Warrants. The terms of the New Warrants are substantially similar to the terms of the Original Warrants, except that the New Warrants (i) became exercisable immediately upon issuance for a period of five years from the closing date of the Exercise Agreements; (ii) have an exercise price equal to \$6.00 per share and (iii) included revised language providing that the holders’ right to require the Company to purchase the outstanding New Warrants upon the occurrence of certain fundamental transactions will not apply if the fundamental transaction is a result of a transaction that has not been approved by the Board and that in the event the Company does not have an effective registration statement registering the issuance of the underlying shares of our common stock to the holders, there is no circumstance that would require the Company to net cash settle the outstanding New Warrants. The net proceeds to the Company from the exercise of the New Warrants by the Exercising Holders, after deducting financial advisory fees and expenses and our offering expenses, were approximately \$1.5 million.

2017 Registered Direct Offering

On November 3, 2017, we entered into a securities purchase agreement with certain investors pursuant to which we agreed to sell an aggregate of 1,333,333 shares of our common stock and warrants to purchase up to 666,667 shares of our common stock for gross proceeds of approximately \$4.0 million under the 2017 Shelf Registration Statement (the “2017 Registered Direct Offering”). We also issued warrants to purchase up to 16,000 shares of common stock in a private placement to Roth Capital Partners, LLC as compensation for its services as a placement agent in connection with the 2017 Registered Direct Offering. The 2017 Registered Direct Offering closed on November 6, 2017. The net proceeds to the Company from the 2017 Registered Direct Offering, after deducting the placement agent’s fees and expenses and our offering expenses, and excluding the proceeds, if any, from the exercise of the warrants issued in the offering, were approximately \$3.6 million.

2018 Registered Direct Offering and 2018 Private Placement

On September 20, 2018, we entered into a securities purchase agreement with certain investors pursuant to which we agreed to sell an aggregate of 1,969,077 shares of our common stock and pre-funded warrants to purchase up to 292,461 shares of our common stock for gross proceeds of approximately \$1.5 million under the 2017 Shelf Registration Statement. In a concurrent private placement, we also agreed pursuant to the securities purchase agreement to issue to such investors Series A warrants to purchase up to 2,261,538 shares of our common stock. Additionally, we issued warrants to purchase up to 135,692 shares of our common stock in a private placement to H.C. Wainwright & Co., LLC as compensation for its services as a placement agent in connection with the 2018 Registered Direct Offering and the 2018 Private Placement. The 2018 Registered Direct Offering and the 2018 Private Placement closed on September 25, 2018. The net proceeds to the Company from the offerings, after deducting the placement agent’s fees and expenses our offering expenses, and excluding the proceeds, if any, from the exercise of the warrants issued in the offerings, were approximately \$1.2 million.

Future Capital Requirements

We expect to continue to incur significant operating expenses in connection with our ongoing activities, including conducting clinical trials, manufacturing and seeking regulatory approval of our drug candidates, prexigebersen, BP1002 and BP1003. Accordingly, we will continue to require substantial additional capital to fund our projected operating requirements. Such additional capital may not be available when needed or on terms favorable to us. In addition, we may seek additional capital due to favorable market conditions or strategic considerations, even if we believe we have sufficient funds for our current and future operating plan. There can be no assurance that we will be able to continue to raise additional capital through the sale of our securities in the future. Our future capital requirements may change and will depend on numerous factors, which are discussed in detail in “Item 1A. Risk Factors” to Part I of our Annual Report on Form 10-K as of the fiscal year ended December 31, 2017. For more information, see Note 1 to the Unaudited Condensed Consolidated Financial Statements included herein.

Off-Balance Sheet Arrangements

As of September 30, 2018, we did not have any material off-balance sheet arrangements.

Critical Accounting Policies

The preparation of financial statements in conformity with GAAP in the United States has required the management of the Company to make assumptions, estimates and judgments that affect the amounts reported in the financial statements, including the notes thereto, and related disclosures of commitments and contingencies, if any. We consider our critical accounting policies to be those that require the more significant judgments and estimates in the preparation of financial statements. Our significant accounting policies are discussed in Note 2 to our Consolidated Financial Statements included in our Annual Report on Form 10-K as of the year ended December 31, 2017.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Not applicable.

ITEM 4. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

It is management's responsibility to establish and maintain adequate disclosure controls and procedures, as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act. Disclosure controls and procedures are controls and other procedures of a company that are designed to ensure that information required to be disclosed by the company in the reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is accumulated and communicated to management, including the company's principal executive and principal financial officers, as appropriate, to allow timely decisions regarding required disclosure.

Our management, including our Chief Executive Officer (who is also our Chief Financial Officer), has reviewed and evaluated the effectiveness of our disclosure controls and procedures, as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act, as of the end of the period covered by this Quarterly Report on Form 10-Q. Following this review and evaluation, our management determined that as of the end of the period covered by this Quarterly Report on Form 10-Q, our disclosure controls and procedures are effective to ensure that information required to be disclosed by us in reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in SEC rules and forms, and is accumulated and communicated to management, including our Chief Executive Officer and our Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure.

Changes in Internal Control over Financial Reporting

There were no changes in our internal control over financial reporting that occurred during the period covered by this Quarterly Report on Form 10-Q that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

PART II - OTHER INFORMATION

ITEM 1. LEGAL PROCEEDINGS

None.

ITEM 1A. RISK FACTORS

There were no material changes from the risk factors previously disclosed under “Item 1A. Risk Factors” to Part I of our Annual Report on Form 10-K as of the fiscal year ended December 31, 2017.

ITEM 2. UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS

None.

ITEM 3. DEFAULTS UPON SENIOR SECURITIES

None.

ITEM 4. MINE SAFETY DISCLOSURES

None.

ITEM 5. OTHER INFORMATION

None.

ITEM 6. EXHIBITS

Exhibit No.	Description of Exhibit
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2.1	Agreement and Plan of Merger and Reorganization dated September 27, 2007, by and among the Company, Biopath Acquisition Corp., a Utah corporation and wholly owned subsidiary of the registrant, and Bio-Path, Inc., a Utah corporation (incorporated by reference to Exhibit 2.1 to the Company’s Current Report on Form 8-K filed on September 27, 2007).
3.1	Certificate of Incorporation (incorporated by reference to Exhibit 3.3 to the Company’s Current Report on Form 8-K filed on January 6, 2015).
3.2	Certificate of Amendment to the Certificate of Incorporation of Bio-Path Holdings, Inc. (incorporated by reference to Exhibit 3.1 to the Company’s Current Report on Form 8-K filed on February 9, 2018).
3.3	First Amended and Restated Bylaws (incorporated by reference to Exhibit 3.1 to the Company’s Current Report on Form 8-K filed on June 7, 2017).
4.1	Form of Pre-Funded Warrant issued to certain investors (incorporated by reference to Exhibit 4.1 to the Company’s Current Report on Form 8-K filed on September 21, 2018).
4.2	Form of Series A Warrant issued to certain investors (incorporated by reference to Exhibit 4.2 to the Company’s Current Report on Form 8-K filed on September 21, 2018).
4.3*	Form of Warrant issued to H.C. Wainwright & Co., LLC and certain of its designees.
10.1	Form of Securities Purchase Agreement (incorporated by reference to Exhibit 10.1 to the Company’s Current Report on Form 8-K filed on September 21, 2018).
31*	Certification of Principal Executive Officer and Principal Financial Officer pursuant to Exchange Act Rules 13a-14 and 15d-14, as adopted pursuant to Section 302 Sarbanes Oxley Act of 2002.
32*	Certification of Principal Executive Officer and Principal Financial Officer pursuant to Section 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.

SIGNATURE

In accordance with the requirements of the Exchange Act, the Company has caused this Quarterly Report on Form 10-Q to be signed on its behalf by the undersigned thereunto duly authorized.

Dated: November 14, 2018

BIO-PATH HOLDINGS, INC.

By /s/ Peter H. Nielsen
Peter H. Nielsen
President
Chief Executive Officer
(Principal Executive Officer)
Chief Financial Officer
(Principal Financial Officer)

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NEITHER THIS SECURITY NOR THE SECURITIES FOR WHICH THIS SECURITY IS EXERCISABLE HAVE BEEN REGISTERED WITH THE SECURITIES AND EXCHANGE COMMISSION OR THE SECURITIES COMMISSION OF ANY STATE IN RELIANCE UPON AN EXEMPTION FROM REGISTRATION UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "SECURITIES ACT"), AND, ACCORDINGLY, MAY NOT BE OFFERED OR SOLD EXCEPT PURSUANT TO AN EFFECTIVE REGISTRATION STATEMENT UNDER THE SECURITIES ACT OR PURSUANT TO AN AVAILABLE EXEMPTION FROM, OR IN A TRANSACTION NOT SUBJECT TO, THE REGISTRATION REQUIREMENTS OF THE SECURITIES ACT AND IN ACCORDANCE WITH APPLICABLE STATE SECURITIES LAWS. THIS SECURITY AND THE SECURITIES ISSUABLE UPON EXERCISE OF THIS SECURITY MAY BE PLEDGED IN CONNECTION WITH A BONA FIDE MARGIN ACCOUNT WITH A REGISTERED BROKER-DEALER OR OTHER LOAN WITH A FINANCIAL INSTITUTION THAT IS AN "ACCREDITED INVESTOR" AS DEFINED IN RULE 501(a) UNDER THE SECURITIES ACT OR OTHER LOAN SECURED BY SUCH SECURITIES.

PLACEMENT AGENT COMMON STOCK PURCHASE WARRANT

BIO-PATH HOLDINGS, INC.

Warrant Shares: _____ Issue Date: _____, 2018
Initial Exercise Date: _____, 2019

THIS PLACEMENT AGENT COMMON STOCK PURCHASE WARRANT (the "Warrant") certifies that, for value received, _____ or its assigns (the "Holder") is entitled, upon the terms and subject to the limitations on exercise and the conditions hereinafter set forth, at any time following the six (6) months anniversary of the date hereof (the "Initial Exercise Date") and on or prior to 5:00 p.m. (New York City time) on September 20, 2023 (the "Termination Date") but not thereafter, to subscribe for and purchase from Bio-Path Holdings, Inc., a Delaware corporation (the "Company"), up to _____ shares (as subject to adjustment hereunder, the "Warrant Shares") of the Company's common stock (the "Common Stock"). The purchase price of one share of Common Stock under this Warrant shall be equal to the Exercise Price, as defined in Section 2(b). This Warrant is being issued pursuant to that certain Engagement Agreement, by and between the Company and H.C. Wainwright & Co., LLC, dated as of July 25, 2018.

Section 1. Definitions. Capitalized terms used and not otherwise defined herein shall have the meanings set forth in that certain Securities Purchase Agreement (the "Purchase Agreement"), dated September 20, 2018, among the Company and the purchasers signatory thereto.

Section 2. Exercise.

a) Exercise of Warrant. Exercise of the purchase rights represented by this Warrant may be made, in whole or in part, at any time or times on or after the Initial Exercise Date and on or before the Termination Date by delivery to the Company of a duly executed facsimile copy or PDF copy submitted by e-mail (or e-mail attachment) of the Notice of Exercise in the form annexed hereto (the “Notice of Exercise”). Within the earlier of (i) two (2) Trading Days and (ii) the number of Trading Days comprising the Standard Settlement Period (as defined in Section 2(d)(i) herein) following the date of exercise as aforesaid, the Holder shall deliver the aggregate Exercise Price for the Warrant Shares specified in the applicable Notice of Exercise by wire transfer or cashier’s check drawn on a United States bank unless the cashless exercise procedure specified in Section 2(c) below is specified in the applicable Notice of Exercise. No ink-original Notice of Exercise shall be required, nor shall any medallion guarantee (or other type of guarantee or notarization) of any Notice of Exercise be required. Notwithstanding anything herein to the contrary, the Holder shall not be required to physically surrender this Warrant to the Company until the Holder has purchased all of the Warrant Shares available hereunder and the Warrant has been exercised in full, in which case, the Holder shall surrender this Warrant to the Company for cancellation within three (3) Trading Days of the date on which the final Notice of Exercise is delivered to the Company. Partial exercises of this Warrant resulting in purchases of a portion of the total number of Warrant Shares available hereunder shall have the effect of lowering the outstanding number of Warrant Shares purchasable hereunder in an amount equal to the applicable number of Warrant Shares purchased. The Holder and the Company shall maintain records showing the number of Warrant Shares purchased and the date of such purchases. The Company shall deliver any objection to any Notice of Exercise within one (1) Trading Day of receipt of such notice. **The Holder and any assignee, by acceptance of this Warrant, acknowledge and agree that, by reason of the provisions of this paragraph, following the purchase of a portion of the Warrant Shares hereunder, the number of Warrant Shares available for purchase hereunder at any given time may be less than the amount stated on the face hereof.**

b) Exercise Price. The exercise price per share of Common Stock under this Warrant shall be **\$0.96**, subject to adjustment hereunder (the “Exercise Price”).

c) Cashless Exercise. If at any time after the six-month anniversary of the Closing Date, there is no effective registration statement registering, or no current prospectus available for, the resale of the Warrant Shares by the Holder, then this Warrant may also be exercised, in whole or in part, at such time by means of a “cashless exercise” in which the Holder shall be entitled to receive a number of Warrant Shares equal to the quotient obtained by dividing [(A-B) (X)] by (A), where:

- (A) = as applicable: (i) the VWAP on the Trading Day immediately preceding the date of the applicable Notice of Exercise if such Notice of Exercise is (1) both executed and delivered pursuant to Section 2(a) hereof on a day that is not a Trading Day or (2) both executed and delivered pursuant to Section 2(a) hereof on a Trading Day prior to the opening of “regular trading hours” (as defined in Rule 600(b)(64) of Regulation NMS promulgated under the federal securities laws) on such Trading Day, (ii) at the option of the Holder, either (y) the VWAP on the Trading Day immediately preceding the date of the applicable Notice of Exercise or (z) the Bid Price of the Common Stock on the principal Trading Market as reported by Bloomberg L.P. as of the time of the Holder’s execution of the applicable Notice of Exercise if such Notice of Exercise is executed during “regular trading hours” on a Trading Day and is delivered within two (2) hours thereafter (including until two (2) hours after the close of “regular trading hours” on a Trading Day) pursuant to Section 2(a) hereof or (iii) the VWAP on the date of the applicable Notice of Exercise if the date of such Notice of Exercise is a Trading Day and such Notice of Exercise is both executed and delivered pursuant to Section 2(a) hereof after the close of “regular trading hours” on such Trading Day;
- (B) = the Exercise Price of this Warrant, as adjusted hereunder; and
- (X) = the number of Warrant Shares that would be issuable upon exercise of this Warrant in accordance with the terms of this Warrant if such exercise were by means of a cash exercise rather than a cashless exercise.

“Bid Price” means, for any date, the price determined by the first of the following clauses that applies: (a) if the Common Stock is then listed or quoted on a Trading Market, the bid price of the Common Stock for the time in question (or the nearest preceding date) on the Trading Market on which the Common Stock is then listed or quoted as reported by Bloomberg L.P. (based on a Trading Day from 9:30 a.m. (New York City time) to 4:02 p.m. (New York City time)), (b) if OTCQB or OTCQX is not a Trading Market, the volume weighted average price of the Common Stock for such date (or the nearest preceding date) on OTCQB or OTCQX as applicable, (c) if the Common Stock is not then listed or quoted for trading on OTCQB or OTCQX and if prices for the Common Stock are then reported in the “Pink Sheets” published by OTC Markets Group, Inc. (or a similar organization or agency succeeding to its functions of reporting prices), the most recent bid price per share of the Common Stock so reported, or (d) in all other cases, the fair market value of a share of Common Stock as mutually determined by the Company and the Holder, provided that, if the Company and the Holder are unable to agree upon the fair market value of such Common Stock, then the fair market value will be determined by an independent appraiser selected in good faith by the Holders of a majority in interest of the Securities then outstanding and reasonably acceptable to the Company, the fees and expenses of which shall be paid by the Company.

“VWAP” means, for any date, the price determined by the first of the following clauses that applies: (a) if the Common Stock is then listed or quoted on a Trading Market, the daily volume weighted average price of the Common Stock for such date (or the nearest preceding date) on the Trading Market on which the Common Stock is then listed or quoted as reported by Bloomberg L.P. (based on a Trading Day from 9:30 a.m. (New York City time) to 4:02 p.m. (New York City time)), (b) if OTCQB or OTCQX is not a Trading Market, the volume weighted average price of the Common Stock for such date (or the nearest preceding date) on OTCQB or OTCQX as applicable, (c) if the Common Stock is not then listed or quoted for trading on OTCQB or OTCQX and if

prices for the Common Stock are then reported in the “Pink Sheets” published by OTC Markets Group, Inc. (or a similar organization or agency succeeding to its functions of reporting prices), the most recent bid price per share of the Common Stock so reported, or (d) in all other cases, the fair market value of a share of Common Stock as determined by an independent appraiser selected in good faith by the Holders of a majority in interest of the Securities then outstanding and reasonably acceptable to the Company, the fees and expenses of which shall be paid by the Company.

If Warrant Shares are issued in such a cashless exercise, the parties acknowledge and agree that in accordance with Section 3(a)(9) of the Securities Act, the Warrant Shares shall take on the characteristics of the Warrants being exercised, and the holding period of the Warrant Shares being issued may be tacked on to the holding period of this Warrant. The Company agrees not to take any position contrary to this Section 2(c).

d) Mechanics of Exercise.

i. Delivery of Warrant Shares Upon Exercise. The Company shall cause the Warrant Shares purchased hereunder to be transmitted by the Transfer Agent to the Holder by crediting the account of the Holder’s or its designee’s balance account with The Depository Trust Company through its Deposit or Withdrawal at Custodian system (“DWAC”) if the Company is then a participant in such system and either (A) there is an effective registration statement permitting the issuance of the Warrant Shares to or resale of the Warrant Shares by the Holder or (B) the Warrant Shares are eligible for resale by the Holder without volume or manner-of-sale limitations pursuant to Rule 144 (assuming cashless exercise of the Warrants), and otherwise by physical delivery of a certificate, registered in the Company’s share register in the name of the Holder or its designee, for the number of Warrant Shares to which the Holder is entitled pursuant to such exercise to the address specified by the Holder in the Notice of Exercise by the date that is the earliest of (i) two (2) Trading Days after the delivery to the Company of the Notice of Exercise, (ii) one (1) Trading Day after delivery of the aggregate Exercise Price to the Company and (iii) the number of Trading Days comprising the Standard Settlement Period after the delivery to the Company of the Notice of Exercise (such date, the “Warrant Share Delivery Date”). Upon delivery of the Notice of Exercise, the Holder shall be deemed for all corporate purposes to have become the holder of record of the Warrant Shares with respect to which this Warrant has been exercised, irrespective of the date of delivery of the Warrant Shares, provided that payment of the aggregate Exercise Price (other than in the case of a cashless exercise) is received by the Warrant Share Delivery Date. If the Company fails for any reason to deliver to the Holder the Warrant Shares subject to a Notice of Exercise by the Warrant Share Delivery Date, the Company shall pay to the Holder, in cash, as liquidated damages and not as a penalty, for each \$1,000 of Warrant Shares subject to such exercise (based on the VWAP of the Common Stock on the date of the applicable Notice of Exercise), \$10 per Trading

Day (increasing to \$20 per Trading Day on the fifth Trading Day after such liquidated damages begin to accrue) for each Trading Day after such Warrant Share Delivery Date until such Warrant Shares are delivered or Holder rescinds such exercise. The Company agrees to maintain a transfer agent that is a participant in the FAST program so long as this Warrant remains outstanding and exercisable. As used herein, “Standard Settlement Period” means the standard settlement period, expressed in a number of Trading Days, on the Company’s primary Trading Market with respect to the Common Stock as in effect on the date of delivery of the Notice of Exercise.

ii. Delivery of New Warrants Upon Exercise. If this Warrant shall have been exercised in part, the Company shall, at the request of a Holder and upon surrender of this Warrant, at the time of delivery of the Warrant Shares, deliver to the Holder a new Warrant evidencing the rights of the Holder to purchase the unpurchased Warrant Shares called for by this Warrant, which new Warrant shall in all other respects be identical with this Warrant.

iii. Rescission Rights. If the Company fails to cause the Transfer Agent to transmit to the Holder the Warrant Shares pursuant to Section 2(d)(i) by the Warrant Share Delivery Date, then the Holder will have the right to rescind such exercise.

iv. Compensation for Buy-In on Failure to Timely Deliver Warrant Shares Upon Exercise. In addition to any other rights available to the Holder, if the Company fails to cause the Transfer Agent to transmit to the Holder the Warrant Shares in accordance with the provisions of Section 2(d)(i) above pursuant to an exercise on or before the Warrant Share Delivery Date, and if after such date the Holder is required by its broker 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 the Holder of the Warrant Shares which the Holder anticipated receiving upon such exercise (a “Buy-In”), then the Company shall (A) pay in cash to the Holder the amount, if any, by which (x) the Holder’s total purchase price (including brokerage commissions, if any) for the shares of Common Stock so purchased exceeds (y) the amount obtained by multiplying (1) the number of Warrant Shares that the Company was required to deliver to the Holder in connection with the exercise at issue times (2) the price at which the sell order giving rise to such purchase obligation was executed, and (B) at the option of the Holder, either reinstate the portion of the Warrant and equivalent number of Warrant Shares for which such exercise was not honored (in which case such exercise shall be deemed rescinded) or deliver to the Holder the number of shares of Common Stock that would have been issued had the Company timely complied with its exercise and delivery obligations hereunder. For example, if the Holder purchases Common Stock having a

total purchase price of \$11,000 to cover a Buy-In with respect to an attempted exercise of shares of Common Stock with an aggregate sale price giving rise to such purchase obligation of \$10,000, under clause (A) of the immediately preceding sentence the Company shall be required to pay the Holder \$1,000. The Holder shall provide the Company written notice indicating the amounts payable to the Holder in respect of the Buy-In and, upon request of the Company, evidence of the amount of such loss. 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 Company's failure to timely deliver shares of Common Stock upon exercise of the Warrant as required pursuant to the terms hereof.

v. No Fractional Shares or Scrip. No fractional shares or scrip representing fractional shares shall be issued upon the exercise of this Warrant. As to any fraction of a share which the Holder would otherwise be entitled to purchase upon such exercise, the Company shall, at its election, either pay a cash adjustment in respect of such final fraction in an amount equal to such fraction multiplied by the Exercise Price or round up to the next whole share.

vi. Charges, Taxes and Expenses. Issuance of Warrant Shares shall be made without charge to the Holder for any issue or transfer tax or other incidental expense in respect of the issuance of such Warrant Shares, all of which taxes and expenses shall be paid by the Company, and such Warrant Shares shall be issued in the name of the Holder or in such name or names as may be directed by the Holder; provided, however, that in the event that Warrant Shares are to be issued in a name other than the name of the Holder, this Warrant when surrendered for exercise shall be accompanied by the Assignment Form attached hereto duly executed by the Holder and the Company may require, as a condition thereto, the payment of a sum sufficient to reimburse it for any transfer tax incidental thereto. The Company shall pay all Transfer Agent fees required for same-day processing of any Notice of Exercise and all fees to the Depository Trust Company (or another established clearing corporation performing similar functions) required for same-day electronic delivery of the Warrant Shares.

vii. Closing of Books. The Company will not close its stockholder books or records in any manner which prevents the timely exercise of this Warrant, pursuant to the terms hereof.

e) **Holder's Exercise Limitations.** The Company shall not effect any exercise of this Warrant, and a Holder shall not have the right to exercise any portion of this Warrant, pursuant to Section 2 or otherwise, to the extent that after giving effect to such issuance after exercise as set forth on the applicable Notice of Exercise, the Holder (together with the Holder's Affiliates, and any other Persons acting as a group together with the Holder or any of the Holder's Affiliates (such Persons, "Attribution Parties")), would beneficially own 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 the Holder and its Affiliates and Attribution Parties shall include the number of shares of Common Stock issuable upon exercise of this Warrant with respect to which such determination is being made, but shall exclude the number of shares of Common Stock which would be issuable upon (i) exercise of the remaining, nonexercised portion of this Warrant beneficially owned by the Holder or any of its Affiliates or Attribution Parties and (ii) exercise or conversion of the unexercised or nonconverted portion of any other securities of the Company (including, without limitation, any other Common Stock Equivalents) subject to a limitation on conversion or exercise analogous to the limitation contained herein beneficially owned by the Holder or any of its Affiliates or Attribution Parties. Except as set forth in the preceding sentence, for purposes of this Section 2(e), beneficial ownership shall be calculated in accordance with Section 13(d) of the Exchange Act and the rules and regulations promulgated thereunder, it being acknowledged by the Holder that the Company is not representing to the Holder that such calculation is in compliance with Section 13(d) of the Exchange Act and the Holder is solely responsible for any schedules required to be filed in accordance therewith. To the extent that the limitation contained in this Section 2(e) applies, the determination of whether this Warrant is exercisable (in relation to other securities owned by the Holder together with any Affiliates and Attribution Parties) and of which portion of this Warrant is exercisable shall be in the sole discretion of the Holder, and the submission of a Notice of Exercise shall be deemed to be the Holder's determination of whether this Warrant is exercisable (in relation to other securities owned by the Holder together with any Affiliates and Attribution Parties) and of which portion of this Warrant is exercisable, in each case subject to the Beneficial Ownership Limitation, and the Company shall have no obligation to verify or confirm the accuracy of such determination and shall have no liability for exercises of the Warrant that are not in compliance with the Beneficial Ownership Limitation, except to the extent the Holder relies on the number of outstanding shares of Common Stock that was provided by the Company. In addition, a determination as to any group status as contemplated above shall be determined in accordance with Section 13(d) of the Exchange Act and the rules and regulations promulgated thereunder, and the Company shall have no obligation to verify or confirm the accuracy of such determination and shall have no liability for exercises of the Warrant that are not in compliance with the Beneficial Ownership Limitation, except to the extent the Holder relies on the number of outstanding shares of Common Stock that was provided by the Company. For purposes of this Section 2(e), in determining the number of outstanding shares of Common Stock, a Holder may rely on the number of outstanding shares of Common Stock as reflected in (A) the Company's most recent periodic or annual report filed with the Commission, as the case may be, (B)

a more recent public announcement by the Company or (C) a more recent written notice by the Company or the Transfer Agent setting forth the number of shares of Common Stock outstanding. Upon the written request of a Holder, the Company shall within one (1) Trading Day confirm orally and in writing to the Holder 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 the conversion or exercise of securities of the Company, including this Warrant, by the Holder or its Affiliates or Attribution Parties since the date as of which such number of outstanding shares of Common Stock was reported. The “Beneficial Ownership Limitation” shall be 4.99% of the number of shares of the Common Stock outstanding immediately after giving effect to the issuance of shares of Common Stock issuable upon exercise of this Warrant. The Holder, upon notice to the Company, may increase or decrease the Beneficial Ownership Limitation provisions of this Section 2(e), provided that the Beneficial Ownership Limitation in no event exceeds 9.99% of the number of shares of the Common Stock outstanding immediately after giving effect to the issuance of shares of Common Stock upon exercise of this Warrant held by the Holder and the provisions of this Section 2(e) shall continue to apply. Any increase in the Beneficial Ownership Limitation will not be effective until the 61st day after such notice is delivered to the Company. The provisions of this paragraph shall be construed and implemented in a manner otherwise than in strict conformity with the terms of this Section 2(e) to correct this paragraph (or any portion hereof) which may be defective or inconsistent with the intended Beneficial Ownership Limitation herein contained or to make changes or supplements necessary or desirable to properly give effect to such limitation. The limitations contained in this paragraph shall apply to a successor holder of this Warrant.

Section 3. Certain Adjustments.

a) Stock Dividends and Splits. If the Company, at any time while this Warrant is outstanding: (i) pays a stock dividend or otherwise makes a distribution or distributions on shares of its Common Stock or any other equity or equity equivalent securities payable in shares of Common Stock (which, for avoidance of doubt, shall not include any shares of Common Stock issued by the Company upon exercise of this Warrant), (ii) subdivides outstanding shares of Common Stock into a larger number of shares, (iii) combines (including by way of reverse stock split) outstanding shares of Common Stock into a smaller number of shares, or (iv) issues by reclassification of shares of the Common Stock any shares of capital stock of the Company, then in each case the Exercise Price shall be multiplied by a fraction of which the numerator shall be the number of shares of Common Stock (excluding treasury shares, if any) outstanding immediately before such event and of which the denominator shall be the number of shares of Common Stock outstanding immediately after such event, and the number of shares issuable upon exercise of this Warrant shall be proportionately adjusted such that the aggregate Exercise Price of this Warrant shall remain unchanged. Any adjustment made pursuant to this Section 3(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, combination or re-classification.

b) Subsequent Rights Offerings. In addition to any adjustments pursuant to Section 3(a) above, if at any time the Company grants, issues or sells any Common Stock Equivalents or rights to purchase stock, warrants, securities or other property pro rata to all record holders of any class of shares of Common Stock (the “Purchase Rights”), then the Holder will be entitled to acquire, upon the terms applicable to such Purchase Rights, the aggregate Purchase Rights which the Holder could have acquired if the Holder had held the number of shares of Common Stock acquirable upon complete exercise of this Warrant (without regard to any limitations on exercise hereof, including without limitation, the Beneficial Ownership Limitation) immediately before the date on which a record is taken for the grant, issuance or sale of such Purchase Rights, or, if no such record is taken, the date as of which the record holders of shares of Common Stock are to be determined for the grant, issue or sale of such Purchase Rights (provided, however, that to the extent that the Holder’s right to participate in any such Purchase Right would result in the Holder exceeding the Beneficial Ownership Limitation, then the Holder shall not be entitled to participate in such Purchase Right to such extent (or beneficial ownership of such shares of Common Stock as a result of such Purchase Right to such extent) and such Purchase Right to such extent shall be held in abeyance for the Holder until such time, if ever, as its right thereto would not result in the Holder exceeding the Beneficial Ownership Limitation).

c) Pro Rata Distributions. During such time as this Warrant is outstanding, if the Company shall declare or make any dividend (other than cash) or other distribution of its assets (or rights to acquire its assets) to holders of shares of Common Stock, by way of return of capital or otherwise (including, without limitation, any distribution of stock or other securities, property or options by way of a dividend, spin off, reclassification, corporate rearrangement, scheme of arrangement or other similar transaction) (a “Distribution”), at any time after the issuance of this Warrant, then, in each such case, the Holder shall be entitled to participate in such Distribution to the same extent that the Holder would have participated therein if the Holder had held the number of shares of Common Stock acquirable upon complete exercise of this Warrant (without regard to any limitations on exercise hereof, including without limitation, the Beneficial Ownership Limitation) immediately before the date of which a record is taken for such Distribution, or, if no such record is taken, the date as of which the record holders of shares of Common Stock are to be determined for the participation in such Distribution (provided, however, that to the extent that the Holder’s right to participate in any such Distribution would result in the Holder exceeding the Beneficial Ownership Limitation, then the Holder shall not be entitled to participate in such Distribution to such extent (or in the beneficial ownership of any shares of Common Stock as a result of such Distribution to such extent) and the portion of such Distribution shall be held in abeyance for the benefit of the Holder until such time, if ever, as its right thereto would not result in the Holder exceeding the Beneficial Ownership Limitation).

d) Fundamental Transaction. If, at any time while this Warrant is outstanding, (i) the Company, directly or indirectly, in one or more related transactions effects any merger or consolidation of the Company with or into another Person, (ii) the Company, directly or indirectly, effects any sale, lease, license, assignment, transfer, conveyance or other disposition of all or substantially all of its assets in one or a series of related transactions, (iii) any, direct or indirect, purchase offer, tender offer or exchange offer (whether by the Company or another Person) is completed pursuant to which holders of Common Stock are permitted to sell, tender or exchange their shares for other securities, cash or property and has been accepted by the holders of 50% or more of the outstanding Common Stock, (iv) the Company, directly or indirectly, in one or more related transactions effects any reclassification, reorganization or recapitalization of the

Common Stock or any compulsory share exchange pursuant to which the Common Stock is effectively converted into or exchanged for other securities, cash or property, or (v) the Company, directly or indirectly, in one or more related transactions consummates a stock or share purchase agreement or other business combination (including, without limitation, a reorganization, recapitalization, spin-off or scheme of arrangement) with another Person or group of Persons whereby such other Person or group acquires more than 50% of the outstanding shares of Common Stock (not including any shares of Common Stock held by the other Person or other Persons making or party to, or associated or affiliated with the other Persons making or party to, such stock or share purchase agreement or other business combination) (each a “Fundamental Transaction”), then, upon any subsequent exercise of this Warrant, the Holder shall have the right to receive, for each Warrant Share that would have been issuable upon such exercise immediately prior to the occurrence of such Fundamental Transaction, at the option of the Holder (without regard to any limitation in Section 2(e) on the exercise of this Warrant), the number of shares of Common Stock of the successor or acquiring corporation or of the Company, if it is the surviving corporation, and any additional consideration (the “Alternate Consideration”) receivable as a result of such Fundamental Transaction by a holder of the number of shares of Common Stock for which this Warrant is exercisable immediately prior to such Fundamental Transaction (without regard to any limitation in Section 2(e) on the exercise of this Warrant). For purposes of any such exercise, the determination of the Exercise Price 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 Company shall apportion the Exercise Price among the Alternate Consideration 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 Holder shall be given the same choice as to the Alternate Consideration it receives upon any exercise of this Warrant following such Fundamental Transaction. Notwithstanding anything to the contrary, in the event of a Fundamental Transaction, the Company or any Successor Entity (as defined below) shall, at the Holder’s option, exercisable at any time concurrently with, or within 30 days after, the consummation of the Fundamental Transaction (or, if later, the date of the public announcement of the applicable Fundamental Transaction), purchase this Warrant from the Holder by paying to the Holder an amount of cash equal to the Black Scholes Value of the remaining unexercised portion of this Warrant on the date of the consummation of such Fundamental Transaction; provided, however, that, if the Fundamental Transaction is not within the Company’s control, including not approved by the Company’s Board of Directors, Holder shall only be entitled to receive from the Company or any Successor Entity, as of the date of consummation of such Fundamental Transaction, the same type or form of consideration (and in the same proportion), at the Black Scholes Value (as defined below) of the unexercised portion of this Warrant, that is being offered and paid to the holders of Common Stock of the Company in connection with the Fundamental Transaction, whether that consideration be in the form of cash, stock or any combination thereof, or whether the holders of Common Stock are given the choice to receive from among alternative forms of consideration in connection with the Fundamental Transaction. “Black Scholes Value” means the value of this Warrant based on the Black

and Scholes Option Pricing Model obtained from the “OV” function on Bloomberg, L.P. (“Bloomberg”) determined as of the day of consummation of the applicable Fundamental Transaction for pricing purposes and reflecting (A) a risk-free interest rate corresponding to the U.S. Treasury rate for a period equal to the time between the date of the public announcement of the applicable Fundamental Transaction and the Termination Date, (B) an expected volatility equal to the greater of 100% and the 100 day volatility obtained from the HVT function on Bloomberg (determined utilizing a 360 day annualization factor) as of the Trading Day immediately following the public announcement of the applicable Fundamental Transaction, (C) the underlying price per share used in such calculation shall be the greater of (i) the sum of the price per share being offered in cash, if any, plus the value of any non-cash consideration, if any, being offered in such Fundamental Transaction and (ii) the greater of (x) the last VWAP immediately prior to the public announcement of such Fundamental Transaction and (y) the last VWAP immediately prior to the consummation of such Fundamental Transaction, (D) a zero cost of borrow and (E) a remaining option time equal to the time between the date of the public announcement of the applicable Fundamental Transaction and the Termination Date. The payment of the Black Scholes Value will be made by wire transfer of immediately available funds within five Business Days of the Holder’s election (or, if later, on the effective date of the Fundamental Transaction). The Company shall cause any successor entity in a Fundamental Transaction in which the Company is not the survivor (the “Successor Entity”) to assume in writing all of the obligations of the Company under this Warrant and the other Transaction Documents in accordance with the provisions of this Section 3(e) pursuant to written agreements in form and substance reasonably satisfactory to the Holder and approved by the Holder (without unreasonable delay) prior to such Fundamental Transaction and shall, at the option of the Holder, deliver to the Holder in exchange for this Warrant a security of the Successor Entity evidenced by a written instrument substantially similar in form and substance to this Warrant which is exercisable for a corresponding number of shares of capital stock of such Successor Entity (or its parent entity) equivalent to the shares of Common Stock acquirable and receivable upon exercise of this Warrant (without regard to any limitations on the exercise of this Warrant) prior to such Fundamental Transaction, and with an exercise price which applies the exercise price hereunder to such shares of capital stock (but taking into account the relative value of the shares of Common Stock pursuant to such Fundamental Transaction and the value of such shares of capital stock, such number of shares of capital stock and such exercise price being for the purpose of protecting the economic value of this Warrant immediately prior to the consummation of such Fundamental Transaction), and which is reasonably satisfactory in form and substance to the Holder. Upon the occurrence of any such Fundamental Transaction, the Successor Entity shall succeed to, and be substituted for, the Company (so that from and after the date of such Fundamental Transaction, the provisions of this Warrant and the other Transaction Documents referring to the “Company” shall refer instead to the Successor Entity), and the Successor Entity may exercise every right and power of the Company and shall assume all of the obligations of the Company under this Warrant and the other Transaction Documents with the same effect as if such Successor Entity had been named as the Company herein.

e) Calculations. All calculations under this Section 3 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 3, 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 treasury shares, if any) issued and outstanding.

f) Notice to Holder.

i. Adjustment to Exercise Price. Whenever the Exercise Price is adjusted pursuant to any provision of this Section 3, the Company shall promptly deliver to the Holder by facsimile or email a notice setting forth the Exercise Price after such adjustment and any resulting adjustment to the number of Warrant Shares and setting forth a brief statement of the facts requiring such adjustment.

ii. Notice to Allow Exercise by Holder. If while the Warrant is outstanding (A) the Company shall declare a dividend (or any other distribution in whatever form) on the Common Stock, (B) the Company shall declare a special nonrecurring cash dividend on or a redemption of the Common Stock, (C) the Company shall authorize the granting to all holders of the Common Stock 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 Company shall be required in connection with any reclassification of the Common Stock, any consolidation or merger to which the Company is a party, any sale or transfer of all or substantially all of the assets of the Company, or any compulsory share exchange whereby the Common Stock is converted into other securities, cash or property, or (E) the Company shall authorize the voluntary or involuntary dissolution, liquidation or winding up of the affairs of the Company, then, in each case, the Company shall cause to be delivered by facsimile or email to the Holder at its last facsimile number or email address as it shall appear upon the Warrant Register of the Company, 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. To the extent that any notice provided in this Warrant constitutes, or contains, material, non-public information regarding the Company or any of the Subsidiaries, the Company shall simultaneously file such notice with the Commission pursuant to a Current Report on Form 8-K. The Holder shall remain entitled to exercise this Warrant during the period commencing on the date of such notice to the effective date of the event triggering such notice except as may otherwise be expressly set forth herein.

Section 4. Transfer of Warrant.

a) Transferability. Pursuant to FINRA a) Rule 5110(g)(1), neither this Warrant nor any Warrant Shares issued upon exercise of this Warrant shall be sold, transferred, assigned, pledged or hypothecated, or be the subject of any hedging, short sale, derivative, put or call transaction that would result in the effective economic disposition of the securities by any person for a period of 180 days immediately following the date of effectiveness or commencement of sales of the offering pursuant to which this Warrant is being issued, except the transfer of any security:

- i. by operation of law or by reason of reorganization of the Company;
- ii. to any FINRA member firm participating in the offering and the officers and partners thereof, if all securities so transferred remain subject to the lock-up restriction in this Section 4(a) for the remainder of the time period;
- iii. if the aggregate amount of securities of the Company held by the underwriter and related persons do not exceed 1% of the securities being offered;
- iv. that is beneficially owned on a pro-rata basis by all equity owners of an investment fund, provided that no participating member manages or otherwise directs investments by the fund, and participating members in the aggregate do not own more than 10% of the equity in the fund; or
- v. the exercise or conversion of any security, if all securities received remain subject to the lock-up restriction in this Section 4(a) for the remainder of the time period.

Subject to the foregoing restriction and subject to compliance with any applicable securities laws and the conditions set forth in Section 4(d) hereof and to the provisions of Section 4.1 of the Purchase Agreement, this Warrant and all rights hereunder (including, without limitation, any registration rights) are transferable, in whole or in part, upon surrender of this Warrant at the principal office of the Company or its designated agent, together with a written assignment of this Warrant substantially in the form attached hereto duly executed by the Holder or its agent or attorney and funds sufficient to pay any transfer taxes payable upon the making of such transfer. Upon such surrender and, if required, such payment, the Company shall execute and deliver a new Warrant or Warrants in the name of the assignee or assignees, as applicable, and in the denomination or denominations specified in such instrument of assignment, and shall issue to the assignor a new Warrant evidencing the portion of this Warrant not so assigned, and this Warrant shall promptly be cancelled. Notwithstanding anything herein to the contrary, the Holder shall not be required to physically surrender this Warrant to the Company unless the Holder has assigned this Warrant in full, in which case, the Holder shall surrender this Warrant to the Company within three (3) Trading Days of the date on which the Holder delivers an assignment form to the Company assigning this Warrant in full. The Warrant, if properly assigned in accordance herewith, may be exercised by a new holder for the purchase of Warrant Shares without having a new Warrant issued.

b) New Warrants. This Warrant may be divided or combined with other Warrants upon presentation hereof at the aforesaid office of the Company, together with a written notice specifying the names and denominations in which new Warrants are to be issued, signed by the Holder or its agent or attorney. Subject to compliance with Section 4(a), as to any transfer which may be involved in such division or combination, the Company shall execute and deliver a new Warrant or Warrants in exchange for the Warrant or Warrants to be divided or combined in accordance with such notice. All Warrants issued on transfers or exchanges shall be dated the Issue Date of this Warrant and shall be identical with this Warrant except as to the number of Warrant Shares issuable pursuant thereto.

c) Warrant Register. The Company shall register this Warrant, upon records to be maintained by the Company for that purpose (the “Warrant Register”), in the name of the record Holder hereof from time to time. The Company may deem and treat the registered Holder of this Warrant as the absolute owner hereof for the purpose of any exercise hereof or any distribution to the Holder, and for all other purposes, absent actual notice to the contrary.

d) Transfer Restrictions. If, at the time of the surrender of this Warrant in connection with any transfer of this Warrant, the transfer of this Warrant shall not be either (i) registered pursuant to an effective registration statement under the Securities Act and under applicable state securities or blue sky laws or (ii) eligible for resale without volume or manner-of-sale restrictions or current public information requirements pursuant to Rule 144, the Company may require, as a condition of allowing such transfer, that the Holder or transferee of this Warrant, as the case may be, comply with the provisions of Section 5.7 of the Purchase Agreement.

e) Representation by the Holder. The Holder, by the acceptance hereof, represents and warrants that it is acquiring this Warrant and, upon any exercise hereof, will acquire the Warrant Shares issuable upon such exercise, for its own account and not with a view to or for distributing or reselling such Warrant Shares or any part thereof in violation of the Securities Act or any applicable state securities law, except pursuant to sales registered or exempted under the Securities Act.

Section 5. Miscellaneous.

a) No Rights as Stockholder Until Exercise; No Settlement in Cash. This Warrant does not entitle the Holder to any voting rights, dividends or other rights as a stockholder of the Company prior to the exercise hereof as set forth in Section 2(d)(i), except as expressly set forth in Section 3. Without limiting the rights of a Holder to receive Warrant Shares on a “cashless exercise,” and to receive the cash payments contemplated pursuant to Sections 2(d)(i) and 2(d)(iv), in no event will the Company be required to net cash settle a Warrant exercise.

b) Loss, Theft, Destruction or Mutilation of Warrant. The Company covenants that upon receipt by the Company of evidence reasonably satisfactory to it of the loss, theft, destruction or mutilation of this Warrant or any stock certificate relating to the Warrant Shares, and in case of loss, theft or destruction, of indemnity or security reasonably satisfactory to it (which, in the case of the Warrant, shall not include the posting of any bond), and upon surrender and cancellation of such Warrant or stock certificate, if mutilated, the Company will make and deliver a new Warrant or stock certificate of like tenor and dated as of such cancellation, in lieu of such Warrant or stock certificate.

c) Saturdays, Sundays, Holidays, etc. If the last or appointed day for the taking of any action or the expiration of any right required or granted herein shall not be a Business Day, then, such action may be taken or such right may be exercised on the next succeeding Business Day.

d) Authorized Shares.

The Company covenants that, during the period the Warrant is outstanding, it will reserve from its authorized and unissued Common Stock a sufficient number of shares to provide for the issuance of the Warrant Shares upon the exercise of any purchase rights under this Warrant. The Company further covenants that its issuance of this Warrant shall constitute full authority to its officers who are charged with the duty of issuing the necessary Warrant Shares upon the exercise of the purchase rights under this Warrant. The Company will take all such reasonable action as may be necessary to assure that such Warrant Shares may be issued as provided herein without violation of any applicable law or regulation, or of any requirements of the Trading Market upon which the Common Stock may be listed. The Company covenants that all Warrant Shares which may be issued upon the exercise of the purchase rights represented by this Warrant will, upon exercise of the purchase rights represented by this Warrant and payment for such Warrant Shares in accordance herewith, be duly authorized, validly issued, fully paid and nonassessable and free from all taxes, liens and charges created by the Company in respect of the issue thereof (other than taxes in respect of any transfer occurring contemporaneously with such issue).

Except and to the extent as waived or consented to by the Holder, the Company shall not by any action, including, without limitation, amending its certificate of incorporation or through any reorganization, transfer of assets, consolidation, merger, dissolution, issue or sale of securities or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms of this Warrant, but will at all times in good faith assist in the carrying out of all such terms and in the taking of all such actions as may be necessary or appropriate to protect the rights of Holder as set forth in this Warrant against impairment. Without limiting the generality of the foregoing, the Company will (i) not increase the par value of any Warrant Shares above the amount payable therefor upon such exercise immediately prior to such increase in par value, (ii) take all such action as may be necessary or appropriate in order that the Company may validly and legally issue fully paid and nonassessable Warrant Shares upon the exercise of this Warrant and (iii) use commercially reasonable efforts to obtain all such authorizations, exemptions or consents from any public regulatory body having jurisdiction thereof, as may be, necessary to enable the Company to perform its obligations under this Warrant.

Before taking any action which would result in an adjustment in the number of Warrant Shares for which this Warrant is exercisable or in the Exercise Price, the Company shall obtain all such authorizations or exemptions thereof, or consents thereto, as may be necessary from any public regulatory body or bodies having jurisdiction thereof.

e) Jurisdiction. All questions concerning the construction, validity, enforcement and interpretation of this Warrant shall be determined in accordance with the provisions of the Purchase Agreement.

f) Restrictions. The Holder acknowledges that the Warrant Shares acquired upon the exercise of this Warrant, if not registered, and the Holder does not utilize cashless exercise, will have restrictions upon resale imposed by state and federal securities laws.

g) Nonwaiver and Expenses. No course of dealing or any delay or failure to exercise any right hereunder on the part of Holder shall operate as a waiver of such right or otherwise prejudice the Holder's rights, powers or remedies, notwithstanding the fact that the right to exercise this Warrant terminates on the Termination Date. Without limiting any other provision of this Warrant or the Purchase Agreement, if the Company willfully and knowingly fails to comply with any provision of this Warrant, which results in any material damages to the Holder, the Company shall pay to the Holder such amounts as shall be sufficient to cover any costs and expenses including, but not limited to, reasonable attorneys' fees, including those of appellate proceedings, incurred by the Holder in collecting any amounts due pursuant hereto or in otherwise enforcing any of its rights, powers or remedies hereunder.

h) Notices. Any notice, request or other document required or permitted to be given or delivered to the Holder by the Company shall be delivered to the address for the Holder in the Warrant Register.

i) Limitation of Liability. No provision hereof, in the absence of any affirmative action by the Holder to exercise this Warrant to purchase Warrant Shares, and no enumeration herein of the rights or privileges of the Holder, shall give rise to any liability of the Holder for the purchase price of any Common Stock or as a stockholder of the Company, whether such liability is asserted by the Company or by creditors of the Company.

j) Remedies. The Holder, in addition to being entitled to exercise all rights granted by law, including recovery of damages, will be entitled to specific performance of its rights under this Warrant. The Company agrees that monetary damages would not be adequate compensation for any loss incurred by reason of a breach by it of the provisions of this Warrant and hereby agrees to waive and not to assert the defense in any action for specific performance that a remedy at law would be adequate.

k) Successors and Assigns. Subject to applicable securities laws, this Warrant and the rights and obligations evidenced hereby shall inure to the benefit of and be binding upon the successors and permitted assigns of the Company and the successors and permitted assigns of Holder. The provisions of this Warrant are intended to be for the benefit of any Holder from time to time of this Warrant and shall be enforceable by the Holder or holder of Warrant Shares.

l) Amendment. This Warrant may be modified or amended or the provisions hereof waived with the written consent of the Company and the Holder.

m) Severability. Wherever possible, each provision of this Warrant shall be interpreted in such manner as to be effective and valid under applicable law, but if any provision of this Warrant shall be prohibited by or invalid under applicable law, such provision shall be ineffective to the extent of such prohibition or invalidity, without invalidating the remainder of such provisions or the remaining provisions of this Warrant.

n) Headings. The headings used in this Warrant are for the convenience of reference only and shall not, for any purpose, be deemed a part of this Warrant.

(Signature Page Follows)

IN WITNESS WHEREOF, the Company has caused this Warrant to be executed by its officer thereunto duly authorized as of the date first above indicated.

BIO-PATH HOLDINGS, INC.

By: _____
Name:
Title:

NOTICE OF EXERCISE

TO: **BIO-PATH HOLDINGS, INC.**

(1) The undersigned hereby elects to purchase _____ Warrant Shares of the Company pursuant to the terms of the attached Warrant (only if exercised in full), and tenders herewith payment of the exercise price in full, together with all applicable transfer taxes, if any.

(2) Payment shall take the form of (check applicable box):

in lawful money of the United States; or

if permitted the cancellation of such number of Warrant Shares as is necessary, in accordance with the formula set forth in subsection 2(c), to exercise this Warrant with respect to the maximum number of Warrant Shares purchasable pursuant to the cashless exercise procedure set forth in subsection 2(c).

(3) Please issue said Warrant Shares in the name of the undersigned or in such other name as is specified below:

The Warrant Shares shall be delivered to the following DWAC Account Number:

(4) Accredited Investor. The undersigned is an “accredited investor” as defined in Regulation D promulgated under the Securities Act of 1933, as amended.

[SIGNATURE OF HOLDER]

Name of Investing Entity:

Signature of Authorized Signatory of Investing Entity:

Name of Authorized Signatory:

Title of Authorized Signatory:

Date:

ASSIGNMENT FORM

(To assign the foregoing Warrant, execute this form and supply required information. Do not use this form to purchase shares.)

FOR VALUE RECEIVED, the foregoing Warrant and all rights evidenced thereby are hereby assigned to

Name: _____
(Please Print)

Address: _____
(Please Print)

Phone Number: _____

Email Address: _____

Dated: _____, _____

Holder's Signature: _____

Holder's Address: _____

**CERTIFICATION OF
PRINCIPAL EXECUTIVE OFFICER AND
PRINCIPAL FINANCIAL OFFICER**

I, Peter H. Nielsen, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Bio-Path Holdings, 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. I am 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 my supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to me 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 my 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. I have disclosed, based on my 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:
 - 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 14, 2018

By: /s/ Peter H. Nielsen
Peter H. Nielsen
Chief Executive Officer
(Principal Executive Officer)
Chief Financial Officer
(Principal Financial Officer)
