UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-Q

(Mark one)

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

For the quarterly period ended March 31, 2018

☐ **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: 000-24477

DIFFUSION PHARMACEUTICALS INC.
(Exact name of registrant as specified in its charter)

Delaware	**30-0645032**
(State of other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification Number)

1317 Carlton Avenue, Suite 200
Charlottesville, VA 22902
(Address of principal executive offices, including zip code)

(434) 220-0718
(Registrant's telephone number including area code)

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

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

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer ☐	Accelerated filer ☐
Non-accelerated filer ☐ (Do not check if a smaller reporting company)	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 Act).Yes ☐ No ☒

The number of shares of common stock outstanding at May 5, 2018 was 50,526,547 shares.

DIFFUSION PHARMACEUTICALS INC.
FORM 10-Q
MARCH 31, 2018

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Unless the context otherwise requires, in this report, references to the "Company," "we," "our" or "us" refer to Diffusion Pharmaceuticals Inc. and its subsidiaries and references to "common stock" refer to the common stock, par value $0.001 per share, of the Company.

This report contains the following trademarks, trade names and service marks of ours: Diffusion. All other trade names, trademarks and service marks appearing in this quarterly report on Form 10-Q are the property of their respective owners. We have assumed that the reader understands that all such terms are source-indicating. Accordingly, such terms appear without the trade name, trademark or service mark notice for convenience only and should not be construed as being used in a descriptive or generic sense.

PART I – FINANCIAL INFORMATION

ITEM 1. FINANCIAL STATEMENTS

Diffusion Pharmaceuticals Inc.
Condensed Consolidated Balance Sheets
(unaudited)

	March 31, 2018	December 31, 2017
Assets		
Current assets:		
Cash and cash equivalents	$ 16,199,481	$ 8,896,468
Prepaid expenses, deposits and other current assets	890,891	769,946
Total current assets	17,090,372	9,666,414
Property and equipment, net	432,634	460,652
Intangible asset	8,639,000	8,639,000
Goodwill	6,929,258	6,929,258
Other assets	275,714	450,491
Total assets	$ 33,366,978	$ 26,145,815
Liabilities, Convertible Preferred Stock and Stockholders' Equity		
Current liabilities:		
Current portion of convertible debt	$ 550,000	$ 550,000
Accounts payable	419,103	511,956
Accrued expenses and other current liabilities	453,713	1,628,851
Total current liabilities	1,422,816	2,690,807
Deferred income taxes	2,223,678	2,223,678
Other liabilities	—	1,386
Total liabilities	3,646,494	4,915,871
Commitments and Contingencies (Note 7)		
Convertible preferred stock, $0.001 par value:		
Series A - 13,750,000 shares authorized at both March 31, 2018 and December 31, 2017. No shares and 12,376,329 shares issued at March 31, 2018 and December 31, 2017, respectively. No shares and 8,306,278 outstanding at March 31, 2018 and December 31, 2017, respectively.	—	—
Total convertible preferred stock	—	—
Stockholders' Equity:		
Common stock, $0.001 par value:		
1,000,000,000 shares authorized; 50,526,547 and 14,519,629 shares issued and outstanding at March 31, 2018 and December 31, 2017, respectively.	50,526	14,520
Additional paid-in capital	94,538,808	82,770,313
Accumulated deficit	(64,868,850)	(61,554,889)
Total stockholders' equity	29,720,484	21,229,944
Total liabilities, convertible preferred stock and stockholders' equity	$ 33,366,978	$ 26,145,815

See accompanying notes to unaudited condensed consolidated financial statements.

Diffusion Pharmaceuticals Inc.
Condensed Consolidated Statements of Operations
(unaudited)

	Three Months Ended March 31,	
	2018	**2017**
Operating expenses:		
Research and development	$ 1,825,568	$ 1,007,571
General and administrative	1,497,839	1,553,139
Depreciation	28,018	6,603
Loss from operations	3,351,425	2,567,313
Other expense:		
Interest (income) expense, net	(37,464)	55,719
Change in fair value of warrant liabilities	—	12,919,674
Warrant related expenses	—	10,225,846
Other financing expenses	—	2,870,226
Net loss	$ (3,313,961)	$ (28,638,778)
Series A cumulative preferred dividends	(85,993)	(58,845)
Deemed dividend related to the make-whole provision for the conversion of Series A preferred stock into common stock	(8,167,895)	—
Net loss attributable to common stockholders	$ (11,567,849)	$ (28,697,623)
Per share information:		
Net loss per share of common stock, basic and diluted	$ (0.27)	$ (2.78)
Weighted average shares outstanding, basic and diluted	42,122,395	10,337,726

See accompanying notes to unaudited condensed consolidated financial statements.

Diffusion Pharmaceuticals Inc.
Condensed Consolidated Statement of Changes in Convertible Preferred Stock and Stockholders' Equity
Three Months Ended March 31, 2018
(unaudited)

	Convertible Preferred Stock		Stockholders' Equity				
	Series A		Common Stock		Additional Paid-in	Accumulated	Total Stockholders'
	Shares	Amount	Shares	Amount	Capital	Deficit	Equity
Balance at January 1, 2018	8,306,278	$ —	14,519,629	$ 14,520	$82,770,313	$ (61,554,889)	$ 21,229,944
Conversion of Series A convertible preferred stock to common stock	(8,306,278)	—	8,306,278	8,306	(8,306)	—	—
Issuance of common stock to Series A convertible preferred stockholders under make-whole adjustment feature	—	—	11,668,421	11,668	(11,668)	—	—
Issuance of common stock related to accrued dividends	—	—	1,032,219	1,032	1,147,275	—	1,148,307
Series A cumulative preferred dividend	—	—	—	—	(85,993)	—	(85,993)
Issuance of common stock and warrants, net of issuance costs	—	—	15,000,000	15,000	10,402,520	—	10,417,520
Stock-based compensation expense	—	—	—	—	324,667	—	324,667
Net loss	—	—	—	—	—	(3,313,961)	(3,313,961)
Balance at March 31, 2018	—	$ —	50,526,547	$ 50,526	$94,538,808	$ (64,868,850)	$ 29,720,484

See accompanying notes to unaudited condensed consolidated financial statements.

Diffusion Pharmaceuticals Inc.
Condensed Consolidated Statements of Cash Flows
(unaudited)

	Three Months Ended March 31,	
	2018	**2017**
Operating activities:		
Net loss	$ (3,313,961)	$ (28,638,778)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation	28,018	6,603
Stock-based compensation expense	324,667	366,383
Warrant related expense, change in fair value, and other financing expenses	—	26,015,746
Non-cash interest expense	1,356	57,185
Changes in operating assets and liabilities:		
Prepaid expenses, deposits and other assets	(92,944)	(99,737)
Accounts payable, accrued expenses and other liabilities	(236,420)	(1,123,303)
Net cash used in operating activities	(3,289,284)	(3,415,901)
Cash flows used in investing activities:		
Purchases of property and equipment	—	(6,372)
Net cash used in investing activities	—	(6,372)
Cash flows provided by financing activities:		
Proceeds from the sale of common stock	10,846,062	—
Proceeds from the sale of Series A convertible preferred stock, net	—	14,269,095
Payment of offering costs	(253,765)	(187,649)
Net cash provided by financing activities	10,592,297	14,081,446
Net increase in cash and cash equivalents	7,303,013	10,659,173
Cash and cash equivalents at beginning of period	8,896,468	1,552,852
Cash and cash equivalents at end of period	$ 16,199,481	$ 12,212,025
Supplemental disclosure of non-cash financing activities:		
Reclassification of accrued dividends related to the issuance of common stock to the Series A convertible preferred stock holders	$ 1,148,307	$ —
Reclassification of deferred offering costs upon completion of private placement	$ —	$ 180,456
Offering costs in accounts payable and accrued expenses	$ 174,777	$ 178,258
Series A cumulative preferred dividends	$ (85,993)	$ (58,845)
Issuance of subscription receivable upon sale of Series A convertible preferred stock	$ —	$ (8,280,935)

See accompanying notes to unaudited condensed consolidated financial statements.

1. Organization and Description of Business

Diffusion Pharmaceuticals Inc. ("Diffusion" or "the Company", "we" or "us"), a Delaware corporation, is a clinical stage biotechnology company focused on extending the life expectancy of cancer patients by improving the effectiveness of current standard-of-care treatments, including radiation therapy and chemotherapy. The Company is developing its lead product candidate, transcrocetinate sodium, also known as trans sodium crocetinate ("TSC"), for use in the many cancer types in which tumor oxygen deprivation ("hypoxia") is known to diminish the effectiveness of current treatments. TSC is designed to target the cancer's hypoxic micro-environment, re-oxygenating treatment-resistant tissue and making the cancer cells more susceptible to the therapeutic effects of standard-of-care radiation therapy and chemotherapy.

2. Liquidity

The Company has not generated any revenues from product sales and has funded operations primarily from the proceeds of public offerings, convertible notes and convertible preferred stock. Substantial additional financing will be required by the Company to continue to fund its research and development activities. No assurance can be given that any such financing will be available when needed or that the Company's research and development efforts will be successful.

The Company regularly explores alternative means of financing its operations and seeks funding through various sources, including public and private securities offerings, collaborative arrangements with third parties and other strategic alliances and business transactions. On January 22, 2018, the Company closed an underwritten public offering of 15,000,000 shares of the Company's common stock, par value $0.001 per share ("Common Stock") and warrants to purchase 15,000,000 shares of Common Stock. At the closing, the Company also issued warrants to purchase an additional 1,970,625 shares of Common Stock pursuant to the underwriter's partial exercise of its overallotment option. The shares of Common Stock and warrants were sold at a combined public offering price of $0.80 per share and warrant for total gross proceeds of approximately $10.8 million. The warrants have an exercise price of $0.80 per share and a term of five years from the date of issuance. In addition, at the closing, the Company issued to designees of the underwriter of the offering warrants to purchase up to 750,000 shares of Common Stock. The underwriter's warrants have an exercise price of $1.00, a term of five years from the date of issuance and otherwise substantially similar terms to the form of investor warrant. As a result of the offering, all outstanding shares of the Company's Series A convertible preferred stock converted into 21,006,918 shares (the "Conversion Shares") of Common Stock (including accrued dividends paid-in-kind and issuance of shares in respect of the "make-whole" adjustment feature thereof).

The Company currently does not have any commitments to obtain additional funds and may be unable to obtain sufficient funding in the future on acceptable terms, if at all. On March 2, 2018, the Company received a written notice from the staff of the Listing Qualifications Department of the Nasdaq Stock Market LLC indicating the Company was not in compliance with Nasdaq Listing Rule 5550(a)(2) because the bid price for the Company's common stock had closed below $1.00 per share for the previous 30 consecutive business days. In accordance with Nasdaq Listing Rule 5810(c)(3)(A), the Company has 180 calendar days from the date of such notice, or until August 29, 2018, to regain compliance with the minimum bid price requirement. To regain compliance, the bid price for the Company's Common Stock must close at $1.00 per share or more for a minimum of 10 consecutive business days. In the event the Company is unable to regain compliance, it could adversely affect the Company's ability to obtain future funding. If the Company cannot obtain the necessary funding, it will need to delay, scale back or eliminate some or all of its research and development programs or enter into collaborations with third parties to: commercialize potential products or technologies that it might otherwise seek to develop or commercialize independently; consider other various strategic alternatives, including a merger or sale of the Company; or cease operations. If the Company engages in collaborations, it may receive lower consideration upon commercialization of such products than if it had not entered into such arrangements or if it entered into such arrangements at later stages in the product development process.

Operations of the Company are subject to certain risks and uncertainties including various internal and external factors that will affect whether and when the Company's product candidates become approved drugs and how significant their market share will be, some of which are outside of the Company's control. The length of time and cost of developing and commercializing these product candidates and/or failure of them at any stage of the drug approval process will materially affect the Company's financial condition and future operations. The Company believes its cash and cash equivalents as of March 31, 2018 are sufficient to fund operations through June 2019.

3. Basis of Presentation and Summary of Significant Accounting Policies

The Summary of Significant Accounting Policies included in our Form 10-K for the year ended December 31, 2017, filed with the Securities and Exchange Commission on April 2, 2018, have not materially changed, except as set forth below.

Basis of Presentation

The accompanying unaudited interim condensed consolidated financial statements of the Company have been prepared in accordance with U.S. generally accepted accounting principles ("GAAP") for interim financial information as found in the Accounting Standard Codification ("ASC") and Accounting Standards Updates ("ASUs") of the Financial Accounting Standards Board ("FASB"), and with the instructions to Form 10-Q and Article 10 of Regulation S-X of the Securities and Exchange Commission (the "SEC"). In the opinion of management, the accompanying unaudited interim condensed consolidated financial statements of the Company include all normal and recurring adjustments (which consist primarily of accruals, estimates and assumptions that impact the financial statements) considered necessary to present fairly the Company's financial position as of March 31, 2018, its results of operations and cash flows for the three months ended March 31, 2018 and 2017. Operating results for the three months ended March 31, 2018 are not necessarily indicative of the results that may be expected for the year ending December 31, 2018. The unaudited interim condensed consolidated financial statements presented herein do not contain the required disclosures under GAAP for annual financial statements. The accompanying unaudited interim condensed consolidated financial statements should be read in conjunction with the annual audited financial statements and related notes as of and for the year ended December 31, 2017 filed with the SEC on Form 10-K on April 2, 2018.

Use of Estimates

The preparation of the unaudited interim condensed consolidated financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of assets and liabilities at the date the financial statements and reported amounts of expense during the reporting period. Actual results could differ from those estimates. Due to the uncertainty of factors surrounding the estimates or judgments used in the preparation of the unaudited condensed consolidated financial statements, actual results may materially vary from these estimates. Estimates and assumptions are periodically reviewed and the effects of revisions are reflected in the unaudited interim condensed consolidated financial statements in the period they are determined necessary.

Fair Value of Financial Instruments

The carrying amounts of the Company's financial instruments, including cash equivalents, accounts payable, and accrued expenses approximate fair value due to the short-term nature of those instruments. As of March 31, 2018 and December 31, 2017, the fair value of the Company's outstanding Series B convertible note was approximately $0.6 million. The fair value of the convertible note is determined using a binomial lattice model that utilizes certain unobservable inputs that fall within Level 3 of the fair value hierarchy.

Convertible Debt

The Company has convertible debt of $0.6 million outstanding at both March 31, 2018 and December 31, 2017. The debt accrues interest at a rate of 1%, is convertible to Common Stock at a conversion price of $2.74, and matures on June 30, 2018. As of March 31, 2018, the Company had accrued interest of approximately $38,000, which is included within accrued expenses and other current liabilities within the unaudited condensed consolidated balance sheets.

Intangible Assets and Goodwill

The Company has an intangible asset, RES-529, with a carrying value of $8.6 million and goodwill, with a carrying value of $6.9 million at both March 31, 2018 and December 31, 2017. RES-529 and goodwill are assessed for impairment on October 1 of the Company's fiscal year or more frequently if impairment indicators exist. The Company has a single reporting unit and all goodwill relates to that reporting unit. There were no impairment indicators or impairments to RES-529 or goodwill during the three months ended March 31, 2018 and 2017.

Net Loss Per Share

Basic net loss per share is computed by dividing net loss attributable to common stockholders by the weighted average number of shares of Common Stock outstanding during each period. Diluted net loss per share includes the effect, if any, from the potential exercise or conversion of securities, such as convertible debt, convertible preferred stock, common stock warrants, stock options and unvested restricted stock that would result in the issuance of incremental shares of Common Stock. In computing the basic and diluted net loss per share applicable to common stockholders, the weighted average number of shares remains the same for both calculations due to the fact that when a net loss exists, dilutive shares are not included in the calculation as the impact is anti-dilutive.

The following potentially dilutive securities outstanding as of March 31, 2018 and 2017 have been excluded from the computation of diluted weighted average shares outstanding, as they would be anti-dilutive:

	March 31,	
	2018	**2017**
Convertible debt	214,880	766,351
Convertible preferred stock	—	12,376,329
Common stock warrants	31,707,223	14,016,608
Stock options	3,053,797	2,304,132
Unvested restricted stock awards	1,533	7,665
	34,977,433	29,471,085

Amounts in the table reflect the Common Stock equivalents of the noted instruments.

Recent Accounting Pronouncements

In July 2017, the FASB issued ASU 2017-11, *Earnings Per Share (Topic* 260*); Distinguishing Liabilities from Equity (Topic* 480*); Derivatives and Hedging (Topic* 815*): (Part I) Accounting for Certain Financial Instruments with Down Round Features, (Part II) Replacement of the Indefinite Deferral for Mandatorily Redeemable Financial Instruments of Certain Nonpublic Entities and Certain Mandatorily Redeemable Noncontrolling Interests with a Scope Exception.* The first part of this update addresses the complexity of accounting for certain financial instruments with down round features and the second part addresses the complexity of distinguishing liabilities from equity. The guidance is applicable to public business entities for fiscal years beginning after December 15, 2018 and interim periods within those years. The Company does not expect this new guidance to have a material impact on its consolidated financial statements.

In February 2016, the FASB issued ASU 2016-02, *Leases (Topic 842)*. The FASB issued the update to require the recognition of lease assets and liabilities on the balance sheet of lessees. The standard will be effective for fiscal years beginning after December 15, 2018, including interim periods within such fiscal years. The ASU requires a modified retrospective transition method with the option to elect a package of practical expedients. Early adoption is permitted. The Company is currently evaluating the potential impact of the adoption of this standard on its consolidated results of operations, financial position and cash flows and related disclosures.

4. Other Accrued Expenses and Liabilities

Other accrued expenses and liabilities consisted of the following:

	March 31, 2018	December 31, 2017
Accrued interest payable	38,771	37,415
Accrued Series A dividends	—	1,062,314
Accrued payroll and payroll related expenses	184,689	312,221
Accrued professional fees	85,235	122,711
Accrued clinical studies expenses	55,210	63,350
Other accrued expenses	89,808	30,840
Total	453,713	1,628,851

5. Convertible Preferred Stock, Common Stock and Common Stock Warrants

2018 Common Stock Offering

In January 2018, the Company entered into an Underwriting Agreement (the “Agreement”) pursuant to which it issued 15,000,000 shares of Common Stock and warrants to purchase 15,000,000 shares of Common Stock with an initial exercise price of $0.80 per share for gross cash proceeds of $10.8 million. In addition, as compensation for its services, the Company granted to the underwriter in the transaction an option (the “Over-Allotment Option”) to purchase, in the aggregate, 2,250,000 shares of Common Stock (the “Option Shares”) and warrants to purchase up to 2,250,000 shares of Common Stock (the “Option Warrants”). The underwriter exercised its right to purchase a portion of the Option Warrants and received an additional 1,970,625 warrants to purchase Common Stock with an initial exercise price $0.80 per share.

In addition, at the closing, the Company issued to designees of the underwriter warrants to purchase up to 750,000 shares of Common Stock. The underwriter's warrants have an exercise price of $1.00 per share, a term of five years from the date of issuance and otherwise substantially similar terms to the form of the investor warrant.

During its evaluation of equity classification for the Common Stock warrants, the Company considered the conditions as prescribed within ASC 815-40, *Derivatives and Hedging, Contracts in an Entity's own Equity* ("ASC 815-40"). The conditions within ASC 815-40 are not subject to a probability assessment. The warrants do not fall under the liability criteria within ASC 480 "Distinguishing Liabilities from Equity" as they are not puttable and do not represent an instrument that has a redeemable underlying security. The warrants do meet the definition of a derivative instrument under ASC 815, but are eligible for the scope exception as they are indexed to the Company's own stock and would be classified in permanent equity if freestanding.

As a result of the Company's Common Stock offering in January 2018, all outstanding shares of the Company's Series A convertible preferred stock converted into 21,006,918 shares (the "Conversion Shares") of Common Stock of which (i) 8,306,278 shares were issued for the automatic conversion of Series A convertible preferred stock (ii) 1,032,219 shares were issued upon settlement of accrued dividends and (iii) 11,668,421 shares were issued for the settlement of the "make-whole" adjustment feature. A deemed dividend of $8.2 million was recorded against additional paid-in-capital for the value of the common shares issued for the settlement of the make-whole adjustment feature.

Common Stock Warrants

As of March 31, 2018, the Company had the following warrants outstanding to acquire shares of its Common Stock:

	Outstanding	Range of exercise price per share	Expiration dates
Common stock warrants issued before 2016	430,721	$20.00 - $49.00	2018 through 2019
Common stock warrants issued in Series A	13,555,887	$2.22	March 2022
Common stock warrants issued in 2018 related to the common stock offering	17,720,625	$0.80 - $1.00	January 2023
	31,707,233		

During the three months ended March 31, 2018, 17,392 warrants expired and no warrants were exercised.

6. Stock-Based Compensation

2015 Equity Plan

The Diffusion Pharmaceuticals Inc. 2015 Equity Plan, as amended (the "2015 Equity Plan"), provides for increases to the number of shares reserved for issuance thereunder each January 1 equal to 4.0% of the total shares of the Company's Common Stock outstanding as of the immediately preceding December 31, unless a lesser amount is stipulated by the Compensation Committee of the Company's board of directors. Accordingly, 580,785 shares were added to the reserve as of January 1, 2018, which shares may be issued in connection with the grant of stock-based awards, including stock options, restricted stock, restricted stock units, stock appreciation rights and other types of awards as deemed appropriate, in each case, in accordance with the terms of the 2015 Equity Plan. As of March 31, 2018, there were 185,076 shares of Common Stock available for future issuance under the 2015 Equity Plan.

The Company recorded stock-based compensation expense in the following expense categories of its unaudited interim condensed consolidated statements of operations for the periods indicated:

	Three Months Ended March 31,	
	2018	**2017**
Research and development	16,372	43,322
General and administrative	308,295	323,061
Total stock-based compensation expense	324,667	366,383

The following table summarizes the activity related to all stock option grants to employees and non-employees for the three months ended March 31, 2018:

	Number of Options	Weighted average exercise price per share	Weighted average remaining contractual life (in years)
Balance at January 1, 2018	2,555,989	7.32	
Granted	500,000	1.18	
Expired	(2,192)	17.10	
Outstanding at March 31, 2018	3,053,797	6.30	7.36
Exercisable at March 31, 2018	2,011,881	7.84	6.46

Non-employee Stock Options

Non-employee options are remeasured to fair value each period through operations using a Black-Scholes option-pricing model until the options vest. The Company did not grant any stock options to non-employees during the three months ended March 31, 2018. The total fair value of non-employee stock options vested during the three months ended March 31, 2018 and 2017 was approximately $1,000 and $53,000, respectively. At March 31, 2018, there were 11,107 unvested options subject to remeasurement and approximately $5,000 of unrecognized compensation expense that will be recognized over a weighted-average period of 1.36 years.

Employee Stock Options

The weighted average grant date fair value of stock option awards granted to employees was $0.98 during the three months ended March 31, 2018. The total fair value of options vested during the three months ended March 31, 2018 and 2017 was $0.3 million and $0.2 million, respectively. No options were exercised during any of the periods presented. At March 31, 2018, there was $2.7 million of unrecognized compensation expense that will be recognized over a weighted-average period of 4.97 years.

Options granted were valued using the Black-Scholes model and assumptions used to value the options granted during the first three months of 2018 were as follows:

Expected term (in years)	5.66
Risk-free interest rate	2.3%
Expected volatility	112.7%
Dividend yield	—%

Restricted Stock Awards

As of March 31, 2018, there were 1,533 unvested shares of restricted stock. During the three months ended March 31, 2018, there were 1,533 shares that vested and the Company recognized stock-based compensation expense of approximately $3,000. At March 31, 2018, there was approximately $2,000 of unrecognized compensation expense that will be recognized during the second quarter of 2018.

7. Commitments and Contingencies

Office Space Rental

The Company leases an office and laboratory facility in Charlottesville, Virginia. Rent expense related to the Company's operating lease was approximately $28,000 and $17,000 for the three months ended March 31, 2018 and 2017, respectively. The Company recognizes rent expense on a straight-line basis over the lease period and accrues for rent expense incurred but not yet paid. Future minimum rental payments under the Company's noncancelable operating lease at March 31, 2018 was as follows:

	Rental Commitments
2018	84,608
2019	114,409
2020	116,464
2021	118,519
Thereafter	39,735
Total	473,735

Arrangement with Clinical Research Organization

On July 5, 2017, the Company entered into a Master Services Agreement ("MSA") with a contract research organization ("CRO") to provide clinical trial services for individual studies and projects by executing individual work orders. The MSA and associated work orders are designed such that quarterly payments are to be made in advance of the work to be performed. The Company recognized research and development expenses related to this MSA of $0.8 million during the three months ended March 31, 2018. As of March 31, 2018, there was $0.5 million of prepaid research and development costs that are estimated to be recognized during 2018.

Legal Proceedings

On August 7, 2014, a complaint was filed in the Superior Court of Los Angeles County, California by Paul Feller, the Company's former Chief Executive Officer under the caption *Paul Feller v. RestorGenex Corporation, Pro Sports & Entertainment, Inc., ProElite, Inc. and Stratus Media Group, GmbH* (Case No. BC553996). The complaint asserts various causes of action, including, among other things, promissory fraud, negligent misrepresentation, breach of contract, breach of employment agreement, breach of the covenant of good faith and fair dealing, violations of the California Labor Code and common counts. The plaintiff is seeking, among other things, compensatory damages in an undetermined amount, punitive damages, accrued interest and an award of attorneys' fees and costs. On December 30, 2014, the Company filed a petition to compel arbitration and a motion to stay the action. On April 1, 2015, the plaintiff filed a petition in opposition to the Company's petition to compel arbitration and a motion to stay the action. After a hearing for the petition and motion on April 14, 2015, the Court granted the Company's petition to compel arbitration and a motion to stay the action. On January 8, 2016, the plaintiff filed an arbitration demand with the American Arbitration Association. No arbitration hearing has yet been scheduled. The Company believes this matter is without merit and intends to defend the arbitration vigorously. Because this matter is in an early stage, the Company is unable to predict its outcome and the possible loss or range of loss, if any, associated with its resolution or any potential effect the matter may have on the Company's financial position. Depending on the outcome or resolution of this matter, it could have a material effect on the Company's financial position.

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

You should read the following discussion of our financial condition and results of operations together with the unaudited interim condensed consolidated financial statements and the notes thereto included elsewhere in this report and other financial information included in this report. The following discussion may contain predictions, estimates and other forward looking statements that involve a number of risks and uncertainties, including those discussed under "*Part I — Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations—Special Note Regarding Forward Looking Statements*" in this report and under "*Part I — Item 1A. Risk Factors*" in our annual report on Form 10-K for the fiscal year ended December 31, 2017. These risks could cause our actual results to differ materially from any future performance suggested below.

Business Overview

We are a clinical stage biotechnology company focused on extending the life expectancy of cancer patients by improving the effectiveness of current standard-of-care treatments, including radiation therapy and chemotherapy. We are developing our lead product candidate, *transcrocetinate sodium*, also known as *trans sodium crocetinate* ("TSC"), for use in the many cancer types in which tumor oxygen deprivation ("hypoxia") is known to diminish the effectiveness of current treatments. TSC is designed to target the cancer's hypoxic micro-environment, re-oxygenating treatment-resistant tissue and making the cancer cells more susceptible to the therapeutic effects of standard-of-care radiation therapy and chemotherapy.

Our lead development programs target TSC against cancers known to be inherently treatment-resistant, including brain cancers and pancreatic cancer. A Phase 2 clinical program, completed in the second quarter of 2015, evaluated 59 patients with newly diagnosed glioblastoma multiforme ("GBM"). This open label, historically controlled study demonstrated a favorable safety and efficacy profile for TSC combined with standard of care, including a 37% improvement in overall survival over the control group at two years. A particularly strong efficacy signal was seen in the inoperable patients, where survival of TSC-treated patients at two years was increased by almost four-fold over the controls. In December 2017, the Company initiated the INvestigation of TSC Against Cancerous Tumors (INTACT) Phase 3 trial in the newly diagnosed inoperable GBM patient population. Patient enrollment began in January 2018. The trial will enroll 236 patients in total, with 118 in the treatment arm and 118 in the control arm.

Using its novel mechanism of action, TSC has been shown to safely re-oxygenate a range of tumor types in our preclinical and clinical studies. Diffusion believes its therapeutic potential is not limited to one specific tumor type, thereby making it potentially useful to improve standard-of-care treatments of other life-threatening cancers. Given TSC's safety profile and animal data, we can, with appropriate funding, move directly into Phase 2 studies in other cancers. We also believe that TSC has potential application in other indications involving hypoxia, such as stroke, cardiovascular disease, neurodegenerative diseases and emergency medicine. A program is now being developed in cooperation with UCLA and the University of Virginia, to test TSC in the treatment of acute ischemic stroke, with an in-ambulance Phase 2 trial being planned. This trial, named the PreHospital Acute Stroke Therapy - TSC (PHAST - TSC) is expected to enroll 160 patients, with 80 in the treatment arm and 80 in the control arm.

In addition to the TSC programs, we are exploring alternatives regarding how best to capitalize upon our product candidate RES-529, which may include possible out-licensing and other options. RES-529 is a novel PI3K/Akt/mTOR pathway inhibitor which has completed two Phase 1 clinical trials for age-related macular degeneration and was in preclinical development in oncology, specifically GBM. RES-529 has shown activity in both in vitro and in vivo glioblastoma animal models and has been demonstrated to be orally bioavailable and can cross the blood brain barrier.

Financial Summary

In January 2018, we closed our previously announced underwritten public offering of 15,000,000 shares of our Common Stock, par value $0.001 per share, and warrants to purchase 15,000,000 shares of Common Stock. At the closing, we also issued warrants to purchase an additional 1,970,625 shares of Common Stock pursuant to the underwriter's partial exercise of its overallotment option. The shares of Common Stock and warrants were sold at a combined public offering price of $0.80 per share and warrant for total gross proceeds of approximately $12.0 million. The warrants have an exercise price of $0.80 per share and a term of five years from the date of issuance. In addition, at the closing, the Company issued to designees of the underwriter of the offering warrants to purchase up to 750,000 shares of Common Stock. The underwriter's warrants have an exercise price of $1.00, a term of five years from the date of issuance and otherwise substantially similar terms to the form of investor warrant.

As of March 31, 2018, we had cash and cash equivalents balances of $16.2 million. We have incurred operating losses since inception, have not generated any product sales revenue and have not achieved profitable operations. We incurred a net loss of $3.3 million for the three months ended March 31, 2018. Our accumulated deficit as of March 31, 2018 was $64.9 million, and we expect to continue to incur substantial losses in future periods. We anticipate that our operating expenses will increase as we continue to advance our lead, clinical-stage product candidate, TSC. We anticipate that our expenses will substantially increase as we:

- complete regulatory and manufacturing activities and commence or progress our planned Phase II and Phase III clinical trials for TSC;
- continue the research, development and scale-up manufacturing capabilities to optimize products and dose forms for which we may obtain regulatory approval;
- conduct other preclinical and clinical studies to support the filing of a New Drug Application ("NDA") with the FDA;
- maintain, expand and protect our global intellectual property portfolio;

- hire additional clinical, manufacturing, and scientific personnel; and
- add operational, financial and management information systems and personnel, including personnel to support our drug development and potential future commercialization efforts.

We intend to use our existing cash and cash equivalents for working capital and to fund the research and development of TSC for use in the treatment of GBM and other hypoxia related indications. We believe that our cash and cash equivalents as of March 31, 2018, will enable us to fund our operating expenses and capital expenditure requirements through June 2019. However, we will need to secure additional funding in the future, from one or more equity or debt financings, collaborations, or other sources, in order to carry out all of our planned research and development activities with respect to TSC and our other product candidates.

Financial Operations Overview

Revenues

We have not yet generated any revenue from product sales. We do not expect to generate revenue from product sales for the foreseeable future.

Research and Development Expense

Research and development costs are charged to expense as incurred. These costs include, but are not limited to, expenses related to third-party contract research arrangements, employee-related expenses, including salaries, benefits, stock-based compensation and travel expense reimbursement. Research and development activities are central to our business model. Product candidates in later stages of clinical development generally have higher development costs than those in earlier stages of clinical development, primarily due to the increased size and duration of later-stage clinical trials. As we advance our product candidates, we expect the amount of research and development costs will continue to increase for the foreseeable future.

General and Administrative Expense

General and administrative expenses consist principally of salaries and related costs for executive and other personnel, including stock-based compensation, expenses associated with investment bank and other financial advisory services, and travel expenses. Other general and administrative expenses include professional fees, facility-related costs, communication expenses and professional fees for legal, patent prosecution and maintenance, and consulting and accounting services.

Interest (Income) Expense, Net

Interest expense, net consists principally of the interest expense recorded in connection with our convertible debt instruments offset by the interest earned from our cash and cash equivalents.

Change in Fair Value of Warrant Liabilities, Warrant Related Expenses, and Other Financing Expenses

In connection with our private placement in March 2017, we recorded warrant expense associated with the change in fair value of the common stock warrants from issuance, the excess fair value of the common stock warrants over the gross cash proceeds from the Series A convertible preferred stock offering, and placement agent commissions and other offering costs. Until their reclassification into stockholders' equity in November 2017 in connection with the amendment of our certificate of incorporation, the warrants were liability classified and remeasured at each reporting period with changes in fair value recorded through earnings.

Results of Operations for Three Months Ended March 31, 2018 Compared to Three Months Ended March 31 2017

The following table sets forth our results of operations for the three months ended March 31, 2018 and 2017.

	Three Months Ended March 31, 2018		
	2018	**2017**	**Change**
Operating expenses:			
Research and development	1,825,568	1,007,571	817,997
General and administrative	1,497,839	1,553,139	(55,300)
Depreciation	28,018	6,603	21,415
Loss from operations	3,351,425	2,567,313	784,112
Other expense:			
Interest (income) expense, net	(37,464)	55,719	(93,183)
Change in fair value of warrant liabilities	—	12,919,674	(12,919,674)
Warrant related expenses	—	10,225,846	(10,225,846)
Other financing expenses	—	2,870,226	(2,870,226)
Net loss	(3,313,961)	(28,638,778)	25,324,817

We recognized $1.8 million in research and development expenses during the three months ended March 31, 2018 compared to $1.0 million during the three months ended March 31, 2017. The increase in research and development expense was mainly attributable to a $1.1 million increase in expense related to our Phase 3 GBM trial, offset by a $0.3 million decrease in manufacturing costs.

General and administrative expenses decreased by $0.1 million during the three months ended March 31, 2018 compared to the three months ended March 31, 2017. Salaries and wages increased by $0.2 million due to the increase in headcount, which was offset by a decrease in professional fees of approximately $0.3 million.

The change in interest expense, net, for the three months ended March 31, 2018 compared to the three months ended March 31, 2017 is primarily attributable to having larger debt principal balance with a higher interest rate outstanding during the three months ended March 31, 2017 compared to the same time period in 2018. We also received more interest income during the three months ended March 31, 2018 compared to the three months ended March 31, 2017 due to a larger balance being held in our money market account.

In connection with the private placement of our Series A preferred stock and common stock warrants in March 2017, we determined the warrants to be classified as liabilities and subject to remeasurement at each reporting period. As a result of the liability classification, we recognized $10.2 million in excess fair value of the common stock warrants over the gross proceeds from our private placement. We also recognized $2.9 million in placement agent commission and other offering costs. For the three months ended March 31, 2017, we recorded a $12.9 million expense for the change in fair value of our common stock warrant liabilities which was primarily attributable to the increase in the market price for our Common Stock. There were no such charges in 2018 as the warrants were reclassified into equity in November of 2017.

Liquidity and Capital Resources

Working Capital

To date, we have funded our operations primarily through the sale and issuance of preferred stock, common stock and convertible promissory notes. In January 2018, the Company closed an underwritten public offering of 15,000,000 shares of Common Stock and warrants to purchase 15,000,000 shares of Common Stock and received approximately $10.6 million aggregate net proceeds. As of March 31, 2018, we had $16.2 million in cash and cash equivalents, working capital of $15.7 million and an accumulated deficit of $64.9 million. We expect to continue to incur net losses for the foreseeable future. We intend to use our existing cash and cash equivalents to fund our working capital and research and development of our product candidates.

Cash Flows

The following table sets forth our cash flows for the three months ended March 31, 2018 and 2017:

	Three Months Ended March 31,	
	2018	**2017**
Net cash (used in) provided by:		
Operating activities	(3,289,284)	(3,415,901)
Investing activities	—	(6,372)
Financing activities	10,592,297	14,081,446
Net increase in cash and cash equivalents	7,303,013	10,659,173

Operating Activities

Net cash used in operating activities of $3.3 million during the three months ended March 31, 2018 was primarily attributable to our net loss of $3.3 million and our net change in operating assets and liabilities of $0.3 million. This amount was offset by $0.4 million in stock-based compensation expense and depreciation expense. The net change in our operating assets and liabilities is primarily attributable to the decrease in our accounts payable and accrued expenses due to the payments of employee bonuses and payments to our vendors.

Net cash used in operating activities of $3.4 million during the three months ended March 31, 2017 was primarily attributable to our net loss of $28.6 million and our net change in operating assets and liabilities of $1.2 million. This amount was offset by $26.0 million in non-cash, warrant related and other financing expenses and $0.4 million in stock-based compensation expense. The net change in our operating assets and liabilities is primarily attributable to the decrease in our accounts payable and accrued expenses due to the payments of employee bonuses and payments to our vendors for professional services and costs associated with our clinical and preclinical activities.

Investing Activities

During the three months ended March 31, 2017, we had approximately $6,000 in fixed asset purchases. We had no such purchases in 2018.

Financing Activities

Net cash provided by financing activities was $10.6 million during the three months ended March 31, 2018 which was attributable to the $10.8 million in proceeds received upon the sale of our Common Stock, offset by $0.2 million in payments for related offering costs. Net cash provided by financing activities was $14.1 million during the three months ended March 31, 2017 which was attributable to the $14.3 million in proceeds received upon the initial closing of our Series A private placement on March 14, 2017 (but did not include additional amounts received upon the final closing of the private placement on March 31, 2017), offset by $0.2 million in payments for related offering costs.

Capital Requirements

We expect to continue to incur substantial expenses and generate significant operating losses as we continue to pursue our business strategy of developing our lead product candidate, TSC, for use in the treatment of GBM and other hypoxia related indications.

Our operations have consumed substantial amounts of cash since inception. We expect to continue to spend substantial amounts of cash to advance the clinical development of our product candidates and to commercialize any product candidates for which we receive regulatory approval. At the current time, the bulk of our cash resources for clinical development is dedicated to the Phase 3 trial for TSC in inoperable GBM. While we believe we have adequate cash resources to continue operations through June 2019, we will need to raise additional funds in order to complete this trial. We do not expect to commence any clinical trials beyond the inoperable GBM trial unless we are able to raise additional capital or make alternative financing arrangements for any such trial.

To date, we have funded our ongoing business operations and short-term liquidity needs, primarily through the sale and issuance of preferred stock, common stock and convertible promissory notes. We expect to continue this practice for the foreseeable future. We believe our cash and cash equivalents as of March 31, 2018 will be sufficient to fund our planned operations through June 2019.

As of March 31, 2018, we did not have credit facilities under which we could borrow funds or any other sources of committed capital. We may seek to raise additional funds through various sources, such as equity and debt financings, or through strategic collaborations and license agreements. We can give no assurances that we will be able to secure additional sources of funds to support our operations, or if such funds are available to us, that such additional financing will be sufficient to meet our needs or be on terms acceptable to us. This risk may increase if economic and market conditions deteriorate. If we are unable to obtain additional financing when needed, we may need to terminate, significantly modify or delay the development of our product candidates and our operations, or we may need to obtain funds through collaborators that may require us to relinquish rights to our technologies or product candidates that we might otherwise seek to develop or commercialize independently. If we are unable to raise any additional capital in the near-term and/or we cannot significantly reduce our expenses and are forced to terminate our operations, investors may experience a complete loss of their investment.

To the extent that we raise additional capital through the sale of our Common Stock, the interests of our current stockholders may be diluted. If we issue additional preferred stock or convertible debt securities, it could affect the rights of our common stockholders or reduce the value of our Common Stock or any outstanding classes of preferred stock. In particular, specific rights granted to future holders of preferred stock or convertible debt securities may include voting rights, preferences as to dividends and liquidation, conversion and redemption rights, sinking fund provisions, and restrictions on our ability to merge with or sell our assets to a third party. Debt financing, if available, may involve agreements that include covenants limiting or restricting our ability to take specific actions, such as incurring additional debt, making capital expenditures or declaring dividends.

On March 2, 2018, we received a written notice from NASDAQ indicating we were not in compliance with Nasdaq Listing Rule 5550(a)(2) because the bid price for the Common Stock had closed below $1.00 per share for the previous 30 consecutive business days. See Note 2 of our unaudited interim condensed consolidated statements for further details.

Off-Balance Sheet Arrangements

We do not have any off-balance sheet arrangements, as defined by the rules and regulations of the SEC that have or are reasonably likely to have a material effect on our financial condition, changes in financial condition, revenue or expenses, results of operations, liquidity, capital expenditures or capital resources. As a result, we are not materially exposed to any financing, liquidity, market or credit risk that could arise if we had engaged in these arrangements.

Critical Accounting Policies

The Critical Accounting Policies included in our Form 10-K for the year ended December 31, 2017, filed with the SEC pursuant to Section 13 or 15(d) under the Securities Act on April 2, 2018, as amended to this date, have not changed.

Special Note Regarding Forward-Looking Statements

This report includes forward-looking statements. We may, in some cases, use terms such as “believes,” “estimates,” “anticipates,” “expects,” “plans,” “intends,” “may,” “could,” “might,” “will,” “should,” “approximately” or other words that convey uncertainty of future events or outcomes to identify these forward-looking statements. Forward-looking statements appear in a number of places throughout this Quarterly Report and include statements regarding our intentions, beliefs, projections, outlook, analyses or current expectations concerning, among other things, our ongoing and planned preclinical development and clinical trials, the timing of and our ability to make regulatory filings and obtain and maintain regulatory approvals for our product candidates, our intellectual property position, the degree of clinical utility of our products, particularly in specific patient populations, our ability to develop commercial functions, expectations regarding clinical trial data, our results of operations, cash needs, financial condition, liquidity, prospects, growth and strategies, the industry in which we operate and the trends that may affect the industry or us.

By their nature, forward-looking statements involve risks and uncertainties because they relate to events, competitive dynamics and industry change, and depend on the economic circumstances that may or may not occur in the future or may occur on longer or shorter timelines than anticipated. Although we believe that we have a reasonable basis for each forward-looking statement contained in this Quarterly Report, we caution you that forward-looking statements are not guarantees of future performance and that our actual results of operations, financial condition and liquidity, and the development of the industry in which we operate may differ materially from the forward-looking statements contained in this Quarterly Report. In addition, even if our results of operations, financial condition and liquidity, and the development of the industry in which we operate are consistent with the forward-looking statements contained in this Quarterly Report, they may not be predictive of results or developments in future periods.

Actual results could differ materially from our forward-looking statements due to a number of factors, including risks related to:

- our ability to obtain additional financing;
- our estimates regarding expenses, future revenues, capital requirements and needs for additional financing;
- the success and timing of our preclinical studies and clinical trials;
- the difficulties in obtaining and maintaining regulatory approval of our products and product candidates, and the labeling under any approval we may obtain;
- our plans and ability to develop and commercialize our product candidates;
- our failure to recruit or retain key scientific or management personnel or to retain our executive officers;
- the accuracy of our estimates of the size and characteristics of the potential markets for our product candidates and our ability to serve those markets;
- regulatory developments in the United States and foreign countries;
- the rate and degree of market acceptance of any of our product candidates;
- obtaining and maintaining intellectual property protection for our product candidates and our proprietary technology;
- our ability to operate our business without infringing the intellectual property rights of others;
- recently enacted and future legislation regarding the healthcare system;
- our ability to maintain our listing on the Nasdaq Capital Market;
- the success of competing products that are or may become available; and
- the performance of third parties, including contract research organizations, collaborators and manufacturers.

You should also read carefully the factors described in the “Risk Factors” section of our Annual Report on Form 10-K filed with the SEC on April 2, 2018, as amended, and elsewhere in our public filings to better understand the risks and uncertainties inherent in our business and underlying any forward-looking statements. As a result of these factors, we cannot assure you that the forward-looking statements in this Quarterly Report on Form 10-Q will prove to be accurate. Furthermore, if our forward-looking statements prove to be inaccurate, the inaccuracy may be material. In light of the significant uncertainties in these forward-looking statements, you should not regard these statements as a representation or warranty by us or any other person that we will achieve our objectives and plans in any specified timeframe, or at all.

Any forward-looking statements that we make in this Quarterly Report speak only as of the date of such statement, and, except as required by applicable law, we undertake no obligation to update such statements to reflect events or circumstances after the date of this Quarterly Report or to reflect the occurrence of unanticipated events. Comparisons of results for current and any prior periods are not intended to express any future trends or indications of future performance, unless expressed as such, and should only be viewed as historical data.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

This Item 3 is not applicable to us as a smaller reporting company and has been omitted.

ITEM 4. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

We maintain disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) that are designed to provide reasonable assurance that information required to be disclosed by us in the reports we file or submit under the Exchange Act is recorded, processed, summarized, and reported within the time periods specified in the SEC's rules and forms and that such information is accumulated and communicated to our management, including our principal executive and principal financial officers, or persons performing similar functions, as appropriate to allow timely decisions regarding required disclosure. In designing and evaluating our disclosure controls and procedures, we recognize that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives, and we are required to apply our judgment in evaluating the cost-benefit relationship of possible internal controls. Our management evaluated, with the participation of our principal executive officer and principal financial officer, the effectiveness of the design and operation of our disclosure controls and procedures as of the end of the period covered in this report. Based on that evaluation, our principal executive officer and principal financial officer concluded that our disclosure controls and procedures were effective as of the end of such period to provide reasonable assurance that information required to be disclosed in our Exchange Act reports is recorded, processed, summarized, and reported within the time periods specified in the SEC's rules and forms, and that such information is accumulated and communicated to our management, including our principal executive officer and principal financial officer, as appropriate to allow timely decisions regarding disclosure.

Change in Internal Control Over Financial Reporting

There were no changes in our internal control over financial reporting (as such term is defined in Rule 13a-15(f) under the Securities Exchange Act of 1934, as amended) that occurred during the quarter ended March 31, 2018 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

For this item, please refer to Note 7, Commitments and Contingencies to the Notes to the Unaudited Condensed Consolidated Financial Statements included in Part I, Item 1 of this Quarterly Report on Form 10-Q, which is incorporated herein by reference.

ITEM 1A. RISK FACTORS

In addition to the other information set forth in this Quarterly report on Form 10-Q, you should carefully consider the factors discussed in Part I, Item IA - "Risk Factors," in our Annual Report on Form 10-K for the year ended December 31, 2017, which could materially affect our business, financial condition or future results.

As of the date of this Quarterly Report on Form 10-Q, there have been no material changes with respect to the Company's risk factors previously disclosed on Form 10-K for the year ended December 31, 2017.

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

Unregistered Sales of Equity Securities

None.

Issuer Purchases of Equity Securities

None.

ITEM 3. DEFAULTS UPON SENIOR SECURITIES

None.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

ITEM 5. OTHER INFORMATION

None.

ITEM 6. EXHIBITS

See attached Exhibit Index.

SIGNATURES

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

Date: May 10, 2018

DIFFUSION PHARMACEUTICALS INC.

By: /s/ David G. Kalergis
David G. Kalergis
Chairman and Chief Executive Officer
(Principal Executive Officer)

By: /s/ Ben L. Shealy
Ben L. Shealy
Senior Vice President, Finance,
Treasurer and Secretary
(Principal Financial Officer)

DIFFUSION PHARMACEUTICALS INC.

QUARTERLY REPORT ON FORM 10-Q
EXHIBIT INDEX

Exhibit No.	Description	Method of Filing
1.1	Underwriting Agreement, dated January 18, 2018, by and between Diffusion Pharmaceuticals Inc. and H.C. Wainwright & Co. LLC	Incorporated by reference to Exhibit 1.1 to the registrant's current report on Form 8-K filed on January 19, 2018
4.1	Form of 2018 Underwriters' Warrant	Incorporated by reference to Exhibit 4.2 to the registrant's current report on Form 8-K filed on January 22, 2018
4.2	Form of 2018 Common Stock Warrant	Incorporated by reference to Exhibit 4.1 to the registrant's current report on Form 8-K filed on January 19, 2018
31.1	Certification of Chief Executive Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 and SEC Rule 13a-14(a)	Filed herewith
31.2	Certification of principal financial officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 and SEC Rule 13a-14(a)	Filed herewith
32.1	Certification of Chief Executive Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002	Furnished herewith
32.2	Certification of principal financial officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002	Furnished herewith
101	The following materials from Diffusion’s quarterly report on Form 10-Q for the quarter ended March 31, 2018, formatted in XBRL (Extensible Business Reporting Language): (i) the Unaudited Condensed Consolidated Balance Sheets, (ii) the Unaudited Condensed Consolidated Statements of Operations, (iii) the Unaudited Condensed Consolidated Statement of Changes in Stockholders’ Equity (Deficit), (iv) the Unaudited Condensed Consolidated Statements of Cash Flows, and (v) Notes to Unaudited Condensed Consolidated Financial Statements	Filed herewith

Exhibit 31.1

CERTIFICATION OF PRINCIPAL EXECUTIVE OFFICER PURSUANT TO SECTION 302 OF THE SARBANES OXLEY ACT OF 2002 AND SEC RULE 13a-14(a)

I, David G. Kalergis, certify that:

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

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

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

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

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

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

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

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

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

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

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

Date: May 10, 2018

/s/ David G. Kalergis
David G. Kalergis
Chairman and Chief Executive Officer
(Principal Executive Officer)

Exhibit 31.2

CERTIFICATION OF PRINCIPAL FINANCIAL OFFICER PURSUANT TO SECTION 302 OF THE SARBANES OXLEY ACT OF 2002 AND SEC RULE 13a-14(a)

I, Ben L. Shealy, certify that:

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

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

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

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

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

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

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

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

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

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

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

Date: May 10, 2018

/s/ Ben L. Shealy
Ben L. Shealy
Senior Vice President, Finance, Treasurer and Secretary
(Principal Financial Officer)

Exhibit 32.1

CERTIFICATION OF PRINCIPAL EXECUTIVE OFFICER PURSUANT TO 18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Quarterly Report on Form 10-Q of Diffusion Pharmaceuticals Inc. (the "Company") for the quarter ended March 31, 2018 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, David G. Kalergis, Chairman and Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to my knowledge:

(1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

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

/s/ David G. Kalergis
David G. Kalergis
Chairman and Chief Executive Officer
May 10, 2018

Exhibit 32.2

CERTIFICATION OF PRINCIPAL FINANCIAL OFFICER PURSUANT TO 18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Quarterly Report on Form 10-Q of Diffusion Pharmaceuticals Inc. (the "Company") for the quarter ended March 31, 2018 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Ben L. Shealy, Senior Vice President, Finance, Treasurer and Secretary of the Company, certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to my knowledge:

(1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

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

/s/ Ben L. Shealy
Ben L. Shealy
Senior Vice President, Finance, Treasurer and Secretary
May 10, 2018