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, 2007

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: 000-26534

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

Delaware	**13-3671221**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
4 Science Park New Haven, CT	**06511**
(Address of principal executive offices)	(Zip Code)

(203) 498-4210
(Registrant's telephone number, including area code)

NOT APPLICABLE
(Former name, former address and former fiscal year, if changed since last report)

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 is a large accelerated filer, an accelerated filer, or a non-accelerated filer. See definition of "accelerated filer and large accelerated filer" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer ☐ Accelerated filer ☑ Non-accelerated filer ☐

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

The number of shares outstanding of the registrant's common stock as of November 6, 2007 was 75,498,129.

VION PHARMACEUTICALS, INC.

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In this report, unless the context otherwise requires, the terms "we," "us," "our," "the Company" and "Vion" refer to Vion Pharmaceuticals, Inc., a Delaware corporation.

PART I

FINANCIAL INFORMATION

ITEM 1. ***Financial Statements***

Vion Pharmaceuticals, Inc.
(A Development Stage Company)

Condensed Consolidated Balance Sheets
(Unaudited)

(In thousands, except share and per share data)	September 30, 2007	December 31, 2006
ASSETS		
Current Assets:		
Cash and cash equivalents	$ 68,011	$ 30,914
Available-for-sale securities	40	100
Accounts receivable	26	9
Prepaid expenses	131	203
Deferred issuance costs	250	—
Total current assets	68,458	31,226
Property and equipment, net	765	605
Deferred issuance costs, net of current portion	843	—
Security deposits	25	25
Total assets	$ 70,091	$ 31,856
LIABILITIES AND SHAREHOLDERS' EQUITY		
Current Liabilities:		
Accrued expenses	$ 4,174	$ 4,263
Accounts payable	2,023	1,057
Accrued payroll and payroll-related expenses	708	740
Interest payable	581	—
Deferred revenue	18	18
Total current liabilities	7,504	6,078
Deferred revenue, net of current portion	310	324
Convertible senior notes	54,017	—
Total liabilities	61,831	6,402
Shareholders' Equity:		
Preferred stock, $0.01 par value, authorized: 5,000,000 shares; issued and outstanding: none	—	—
Common stock, $0.01 par value, authorized: 300,000,000 shares; issued and outstanding: 75,498,129 and 71,366,506 shares at September 30, 2007 and December 31, 2006, respectively	755	714
Additional paid-in capital	208,452	199,793
Accumulated other comprehensive income	40	100
Deficit accumulated during the development stage	(200,987)	(175,153)
	8,260	25,454
Total liabilities and shareholders' equity	$ 70,091	$ 31,856

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

Vion Pharmaceuticals, Inc.
(A Development Stage Company)

Condensed Consolidated Statements of Operations
(Unaudited)

(In thousands, except per share data)	For the Three Months Ended September 30, 2007	For the Three Months Ended September 30, 2006	For the Nine Months Ended September 30, 2007	For the Nine Months Ended September 30, 2006	For the Period From May 1, 1994 (Inception) through September 30, 2007
Revenues:					
Technology license fees	$ 6	$ 6	$ 16	$ 16	$ 4,547
Research and laboratory support fees	—	—	—	—	5,932
Contract research grants	—	—	—	—	2,501
Total revenues	6	6	16	16	12,980
Operating expenses:					
Clinical trials	3,490	3,285	10,781	9,983	70,359
Other research and development	2,786	2,336	7,898	6,514	89,927
Total research and development	6,276	5,621	18,679	16,497	160,286
Marketing, general and administrative	2,279	1,216	6,387	4,260	43,122
Total operating expenses	8,555	6,837	25,066	20,757	203,408
Loss from operations	(8,549)	(6,831)	(25,050)	(20,741)	(190,428)
Interest income	938	502	2,603	1,560	11,845
Interest expense	(1,423)	—	(3,652)	—	(3,866)
Other expense, net	—	(3)	(4)	(31)	(176)
Loss before income taxes	(9,034)	(6,332)	(26,103)	(19,212)	(182,625)
Income tax provision (benefit)	3	10	(269)	34	(382)
Net loss	(9,037)	(6,342)	(25,834)	(19,246)	(182,243)
Preferred stock dividends and accretion	—	—	—	—	(18,489)
Loss applicable to common shareholders	$(9,037)	$(6,342)	$(25,834)	$(19,246)	$(200,732)
Loss applicable to common shareholders per share	$ (0.13)	$ (0.10)	$ (0.39)	$ (0.29)	
Weighted-average number of shares of common stock outstanding	67,743	66,231	66,828	66,167	

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

Vion Pharmaceuticals, Inc.
(A Development Stage Company)

Condensed Consolidated Statement of Changes in Shareholders' Equity
(Unaudited)

(In thousands, except share data)	Common Stock		Additional Paid-in Capital	Accumulated Other Comprehensive Income (Loss)	Deficit Accumulated During the Development Stage	Total Shareholders' Equity
	Shares	Amount				
Balance at December 31, 2006	71,366,506	$714	$199,793	$100	$(175,153)	$ 25,454
Issuance for interest payment – August 2007	2,539,200	25	2,235			2,260
Issuance of warrants – February 2007			3,036			3,036
Stock-based compensation expense			3,390			3,390
Restricted stock awards	1,577,134	16	(16)			—
Issuance under employee stock plan	15,289	—	14			14
Change in net unrealized gains and losses				(60)		(60)
Net loss					(25,834)	(25,834)
Comprehensive loss						(25,894)
Balance at September 30, 2007	75,498,129	$755	$208,452	$ 40	$(200,987)	$ 8,260

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

Vion Pharmaceuticals, Inc.
(A Development Stage Company)

Condensed Consolidated Statements of Cash Flows
(Unaudited)

(In thousands)	For the Nine Months Ended September 30, 2007	For the Nine Months Ended September 30, 2006	For The Period From May 1, 1994 (Inception) through September 30, 2007
Cash flows from operating activities:			
Net loss	$(25,834)	$(19,246)	$(182,243)
Adjustments to reconcile net loss to net cash used in operating activities –			
Stock-based compensation	3,390	1,359	6,431
Stock issued in payment of interest	2,260	—	2,260
Amortization of issuance costs, original issue discount and assigned warrant value	809	—	809
Depreciation and amortization	214	154	3,480
Loss on equipment disposals	—	—	12
Purchased research and development	—	—	4,481
Stock issued for services	—	—	600
Amortization of financing costs	—	—	346
Extension/reissuance of placement agent warrants	—	—	168
Changes in operating assets and liabilities –			
Receivables and prepaid expenses	55	89	(156)
Other assets	—	—	(22)
Current liabilities	1,426	1,049	7,451
Deferred revenue	(14)	(14)	328
Net cash used in operating activities	(17,694)	(16,609)	(156,055)
Cash flows from investing activities:			
Acquisition of equipment	(374)	(42)	(3,313)
Purchases of marketable securities	—	—	(321,052)
Maturities of marketable securities	—	—	321,052
Net cash used in investing activities	(374)	(42)	(3,313)
Cash flows from financing activities:			
Net proceeds from placement of notes and warrants	55,151	—	55,151
Net proceeds from initial public offering	—	—	9,696
Net proceeds from issuance of common stock	14	76	112,360
Net proceeds from issuance of preferred stock	—	—	20,716
Net proceeds from exercise of warrants	—	—	30,669
Repayment of equipment capital leases	—	—	(927)
Other financing activities, net	—	—	(286)
Net cash provided by financing activities	55,165	76	227,379
Change in cash and cash equivalents	37,097	(16,575)	68,011
Cash and cash equivalents, beginning of period	30,914	52,762	—
Cash and cash equivalents, end of period	$ 68,011	$ 36,187	$ 68,011
Supplemental disclosure of cash flow information:			
Cash paid for interest	$ 2	$ —	$ 216
Cash paid for income taxes	$ 13	$ 57	$ 149

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

Vion Pharmaceuticals, Inc.
(A Development Stage Company)

Notes to Condensed Consolidated Financial Statements
(Unaudited)

1. The Company

Vion Pharmaceuticals, Inc. (the "Company") is a development stage company engaged in the development of therapeutics for the treatment of cancer. The Company, formerly OncoRx, Inc., was incorporated in March 1992 as a Delaware corporation and began operations on May 1, 1994.

2. Basis of Presentation

The accompanying unaudited condensed consolidated financial statements have been prepared in accordance with U.S. generally accepted accounting principles for interim financial information and with the instructions to Form 10-Q. They do not include all of the information and footnotes required by U.S. generally accepted accounting principles for complete financial statements. In the opinion of management, all adjustments (consisting only of normal and recurring adjustments) considered necessary for a fair presentation have been included. Operating results for interim periods are not necessarily indicative of the results that may be expected for the full year. For further information, refer to the consolidated financial statements and footnotes thereto included in the Company's Annual Report on Form 10-K for the year ended December 31, 2006 (File No. 000-26534).

3. Per Share Data – Anti-dilution

As of September 30, 2007, the Company had outstanding warrants to purchase 16,998,971 shares of its common stock at exercise prices between $2.00 and $3.25 per share, outstanding stock options to purchase 4,211,592 shares of its common stock at exercise prices between $0.36 and $17.88 per share and 6,513,604 restricted shares of common stock not yet vested. As the Company has not generated net income in the periods presented, there is no dilutive per share calculation and therefore, these options, warrants and restricted shares have not been considered in the per share calculations presented.

4. Convertible Senior Notes and Warrants

In February 2007, the Company completed a private placement of $60 million aggregate principal amount of 7.75% convertible senior notes due 2012 (the "Notes") and warrants to purchase up to an additional 7.8 million shares of its common stock. The Company is required to pay interest on the Notes semi-annually on February 15 and August 15. The Company may pay interest at its option in cash or registered shares of its common stock, subject to certain limitations. The Company issued 2,539,200 shares of its common stock in payment of interest on August 15, 2007.

The Company received net proceeds after debt discount and issuance costs of approximately $55.2 million from the sale of the Notes and warrants. The Notes were recorded in the consolidated financial statements at an initial carrying value of approximately $53.4 million, which represented the principal amount of the Notes of $60 million less the original issue discount (OID) of $3.6 million given to the initial purchaser of the Notes and the proceeds of approximately $3.0 million allocated to the warrants based on their relative fair value. Deferred issuance costs of approximately $1.3 million were also recorded in the consolidated financial statements. The deferred issuance costs, OID and assigned warrant value are being amortized as a component of interest expense using the effective interest method over the five-year term of the Notes. For the three and nine-month periods ended September 30, 2007, the Company incurred interest expense of $1.4 million and $3.7 million, respectively, which included amortization expense of $325,000 and $809,000, respectively, related to the costs and discounts incurred in connection with the issuance of the Notes and warrants.

The Notes are convertible into shares of the Company's common stock at the option of the holder of Notes prior to the close of business on February 15, 2012, at an initial conversion rate of 520.833 shares of common stock per $1,000 principal amount of Notes, which is equivalent to a conversion price of approximately $1.92 per share. The conversion price is subject to adjustment under certain circumstances. If the Notes are called for redemption, the noteholders will be entitled to convert the Notes at any time before the close of business on the date immediately preceding the date fixed for redemption.

The Company is obligated to pay the principal amount of the Notes in cash on the maturity date, February 15, 2012. On or after February 15, 2010, the Company has the right to redeem some or all of the Notes for cash at a redemption price equal to 100% of the principal amount, plus accrued and unpaid interest to, but not including, the redemption date. Upon certain fundamental changes, holders of Notes will have the right, subject to various conditions and restrictions, to require the Company to repurchase their Notes, in whole or in part, at 100% of the principal amount, plus accrued and unpaid interest up to, but not including, the repurchase date.

The warrants are exercisable into shares of the Company's common stock at the option of the holder of warrants prior to the close of business on February 15, 2010, at an initial exercise price of $2.00 per share. Upon 30 days written notice, the Company may redeem the warrants, in whole or in part, at a price of $0.01 per warrant; provided that, the last sales price of the Company's common stock equals or exceeds 150% of the exercise price per share of the warrants then in effect for any 20 trading days within a 30-consecutive trading day period ending three days before the Company sends the notice of redemption; and provided further that, at all times during such 30-consecutive trading day period there is an effective registration statement relating to the resale of all of the shares of common stock issuable to warrant holders upon exercise of the warrants.

The Company filed a shelf registration statement on Form S-3 and amendments thereto relating to the resale of the shares of common stock underlying the Notes and warrants by the investors and the primary issuance of shares of common stock which may be used by the Company to pay interest and make-whole amounts on such Notes. The shelf registration statement became effective on August 3, 2007.

5. Increase in Authorized Shares

At the Company's Annual Meeting of Stockholders held on June 26, 2007, the stockholders approved an increase in the Company's authorized shares of common stock from 150 million shares to 300 million shares. The stockholders also approved a 3 million share increase in the number of authorized shares of common stock that may be granted under the Company's 2005 Stock Incentive Plan.

6. Stock-Based Compensation

Equity Compensation Plans

2005 Stock Incentive Plan (2005 Plan) – The 2005 Plan, as amended, provides for the issuance of up to 10,531,818 shares of common stock for a range of awards, including restricted stock, stock appreciation rights, deferred stock, other awards based on shares of common stock and performance awards. No award may be made under the 2005 Plan after October 25, 2015.

Stock Option Plans – As of September 30, 2007, the Company had stock options outstanding to purchase 4,211,592 shares of common stock under the following stock option plans: (i) the 2003 Stock Option Plan; (ii) the Amended and Restated 1993 Stock Option Plan; and (iii) the Senior Executive Stock Option Plan. There are no additional shares available for issuance under these plans. The incentive options outstanding will continue to vest in annual installments of 25% on each of the first, second, third and fourth anniversaries of the date of grant, or earlier upon a change of control. Incentive options expire the earlier of: (i) ten years after the date of grant, or (ii) three months after termination of service, if vested. Incentive options which are not vested expire immediately upon

termination of service. The 1993 and 2003 Stock Option Plans provided for the automatic grant of non-qualified stock options to purchase shares of common stock to directors of the Company. All outstanding director options are vested. Generally, director options will expire the earlier of: (i) 10 years after the date of grant, or (i) one year after termination of service as a director under the 2003 Plan or 90 days after termination of service as a director under the 1993 Plan.

Employee Stock Purchase Plan (ESPP) – A total of 450,000 shares of common stock are authorized for issuance under the ESPP. The ESPP permits eligible employees to purchase up to 2,000 shares of common stock at the lower of 85% of the fair market value of the common stock at the beginning or at the end of each nine-month offering period.

Stock-Based Compensation Expense

Beginning January 1, 2006, the Company has recognized compensation expense in accordance with Statement of Financial Accounting Standards 123 (revised 2004), "*Share-Based Payment*," (SFAS 123R) using the straight-line attribution method for awards of restricted stock, grants of stock options and purchases under its employee stock purchase plan based on the grant-date fair value of the portion of stock-based payment awards that is ultimately expected to vest. For the three and nine months ended September 30, 2007, the Company recorded stock-based compensation expense of approximately $1.2 million and $3.4 million, respectively. For the three and nine months ended September 30, 2006, the Company recorded stock-based compensation expense of approximately $413,000 and $1.4 million, respectively. Stock-based compensation expense includes (i) compensation expense for all share-based payments granted prior to, but not yet vested, as of December 31, 2005, based on the grant-date fair value estimated in accordance with the provisions of SFAS 123, and (ii) compensation expense for share-based payments granted subsequent to December 31, 2005 estimated in accordance with the provisions of SFAS 123R.

The following table shows the pro forma impact on net loss if the Company had applied the fair-value method under SFAS 123 to stock-based compensation for the period from inception through December 31, 2005 (in thousands, except per share amounts):

	From Inception (May 1, 1994) to December 31, 2005
Reported net loss	$(131,062)
Add: Stock-based employee compensation expense included in reported net loss	795
Deduct: Stock-based employee compensation expense determined under the fair value based method for all awards	(22,707)
Pro forma net loss	(152,974)
Pro forma preferred stock dividend and accretion	(18,489)
Pro forma loss applicable to common shareholders	$(171,463)

Stock Option Activity

A summary of the activity under the Company's stock option plans as of and for the nine-month period ended September 30, 2007 is as follows:

	Options Outstanding (in 000's)	Weighted-Average Exercise Price Per Share	Weighted-Average Fair Value Per Share	Weighted-Average Remaining Contractual Term in Years
Outstanding at January 1, 2007	4,232	$4.73	$3.79	
Granted	—	—	—	
Exercised	—	—	—	
Forfeited	—	—	—	
Expired	(20)	$4.22	$2.90	
Outstanding at September 30, 2007	4,212	$4.74	$3.73	4.0
Exercisable at September 30, 2007	3,975	$4.75	$3.78	3.8
Vested or expected to vest at September 30, 2007[1]	4,212	$4.74	$3.73	4.0

(1) In addition to the vested options, the Company expects a portion of the options not yet vested to vest at some point in the future. Options expected to vest are calculated by applying an estimated forfeiture rate to the options not yet vested.

The total grant-date fair value of stock options that vested during the nine-month period ended September 30, 2007 was approximately $43,000.

For the three and nine months ended September 30, 2007, the Company recorded compensation expense related to stock options of approximately $82,000 and $244,000, respectively. For the three and nine months ended September 30, 2006, the Company recorded compensation expense related to stock options of approximately $134,000 and $489,000, respectively. As of September 30, 2007, there was approximately $403,000 of total unrecognized compensation cost related to unvested stock option awards. This cost is expected to be recognized throughout the period ending October 31, 2009.

Restricted Stock Activity

For the nine months ended September 30, 2007 and 2006, the Company had net issuances of 1,577,134 and 1,866,758 shares of restricted stock, respectively, at a weighted-average fair value of $1.50 per share and $1.72 per share, respectively. In September 2006, the Company canceled 83,333 shares of restricted stock as the conditions for vesting were not met, which resulted in the reversal of previously recorded compensation expense of $37,000. For the three and nine months ended September 30, 2007, the Company recorded compensation expense related to restricted stock of approximately $1.1 million and $3.2 million, respectively. For the three and nine months ended September 30, 2006, the Company recorded compensation expense related to restricted stock of approximately $279,000 and $870,000, respectively. As of September 30, 2007, there was approximately $5.5 million of total unrecognized compensation cost related to 6,513,604 shares of restricted stock not yet vested. This cost is expected to be recognized throughout the period ending January 31, 2010.

Employee Stock Purchase Plan Activity

For the nine months ended September 30, 2007 and 2006, the Company issued 15,289 and 20,868 shares of common stock, respectively, under the ESPP. For each of the three and nine-month periods ended September 30, 2007, the Company recorded compensation expense of approximately $2,000. For each of the three and nine-month periods ended September 30, 2006, the Company recorded compensation expense of approximately $4,000.

7. Income Taxes

For the nine months ended September 30, 2007, the Company recorded a state tax benefit of approximately $269,000 for the sale of certain research and development tax credits to the State of Connecticut net of a provision for state capital taxes. For the nine months ended September 30, 2006, the Company recorded a provision of approximately $34,000 for state capital taxes.

The Company adopted the provisions of Financial Accounting Standards Board Interpretation No. 48, "*Accounting for Uncertainty in Income Taxes*" (FIN 48) on January 1, 2007. Except for the provisions recorded for minimum state capital taxes and sales recorded of certain research and development tax credits to the State of Connecticut, the Company has not recorded a provision or benefit for income taxes in the consolidated financial statements due to recurring historical losses. The Company had unrecognized tax benefits as of the date of adoption of approximately $68.2 million. The Company has provided a full valuation allowance for its deferred tax asset. The adoption of FIN 48 did not have a material impact on the Company's consolidated financial position or results of operations.

The Company and its subsidiaries file a consolidated U.S. federal income tax return and tax returns in Connecticut and foreign jurisdictions. With limited exceptions, and due to the impact of net operating loss and other credit carryforwards, the Company may effectively be subject to U.S. federal and Connecticut state income tax examinations for periods beginning with 1993. The Company's foreign affiliates are subject to examination by tax authorities for periods beginning with 2004.

The Company recognizes accrued interest and penalties related to unrecognized taxes as additional tax expense. During the year ended December 31, 2006 and the nine month ended September 30, 2007, the Company did not recognize any interest and penalties.

8. Related Party Transactions

In March 2007, the Company made a gift of $200,000 to support research projects through March 31, 2008 at a Yale University ("Yale") research laboratory headed by Dr. Sartorelli, a director of the Company. The gift is payable in four equal quarterly installments beginning April 1, 2007. In accordance with Statement of Financial Accounting Standards No. 116, "*Accounting for Contributions Received and Contributions Made*", the Company recorded the total amount of the gift as research and development expense in the three-month period ended March 31, 2007. Included in the Company's current liabilities at September 30, 2007, is $100,000 for the balance of the gift. The Company licenses various compounds from Yale, including Cloretazine® (VNP40101M) and Triapine®, which were developed by Dr. Sartorelli's laboratory through research funded in part by the Company's gifts.

Mr. Bickerstaff, one of the Company's directors, is a principal of CRT Capital Group LLC ("CRT"), which was the initial purchaser of the Company's convertible senior notes and warrants in a private placement in February 2007. CRT received a purchase discount of $3.6 million, which represented 6% of the $60 million principal amount of the Notes.

9. Commitments and Contingencies

The Company leases its office and laboratory facilities in New Haven, Connecticut. In June 2007, the Company entered into an amendment of its lease to include approximately 6,500 additional square feet of office space. The term of the lease will run through December 31, 2010, unless sooner terminated or extended pursuant to the terms of the lease. The Company has the right to extend the term of the lease for two successive terms of five years each. The amendment provides for a change in the total base annual rent for all premises from $217,118, or $18,093 per month, to $288,618, or $24,052 per month, beginning March 12, 2008.

During the first nine months of 2007, except for the aforementioned obligations for the Yale gift, lease payments and the payment of the principal amount of the Notes on the maturity date, there were no significant changes in the Company's reported payments due under contractual obligations and disclosed contingent contractual obligations related to potential milestone payments under its license agreements and potential cancellation fees under various agreements at December 31, 2006.

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

All statements other than statements of historical fact included in this Quarterly Report on Form 10-Q, including without limitation statements under "Management's Discussion and Analysis of Financial Condition and Results of Operations," regarding our financial position, business strategy, and plans and objectives of our management for future operations, are forward-looking statements. When used in this Quarterly Report on Form 10-Q, words such as "may," "will," "should," "could," "potential," "seek," "project," "predict," "anticipate," "believe," "estimate," "expect," "intend" and similar expressions, as they relate to us or our management, identify forward-looking statements. Forward-looking statements are based on the beliefs of our management as well as assumptions made by and information currently available to our management. Such statements are subject to certain risk factors which may cause our plans to differ or results to vary from those expected, including our ability to secure external sources of funding to continue operations, the inability to access capital and funding on favorable terms, continued operating losses and, as a result, the inability to continue operations, our dependence on regulatory approval for our products, delayed or unfavorable results of drug trials, the possibility that favorable results of earlier clinical trials are not predictive of safety and efficacy results in later clinical trials, the need for additional research and testing, and a variety of other risks set forth from time to time in our filings with the Securities and Exchange Commission including, but not limited to, the detailed discussion of risks attendant to the forward-looking statements contained in Part II, Item 1A, "Risk Factors" in this Quarterly Report on Form 10-Q. The information contained in this Quarterly Report on Form 10-Q is believed to be current as of the date of filing with the Securities and Exchange Commission. Except in special circumstances in which a duty to update arises under law when prior disclosure becomes materially misleading in light of subsequent events, we do not intend to update any of these forward-looking statements to reflect events or circumstances after the date hereof or to reflect the occurrence of unanticipated events.

Overview

We are a development stage pharmaceutical company engaged in the development of therapeutics for the treatment of cancer. Our activities to date have consisted primarily of research and product development, preclinical trials of product candidates, obtaining regulatory approval for clinical trials, conducting clinical trials, conducting pre-launch commercialization activities, negotiating and obtaining collaborative agreements, and obtaining financing in support of these activities. Historically, our revenues have primarily consisted of contract research grants, technology license fees, and research and laboratory support fees. Since inception, we have generated minimal revenues and have incurred substantial operating losses from our activities. We currently have no material source of revenue and expect to incur substantial operating losses for the next several years due to expenses associated with our activities.

Our plan of operations for the next twelve months currently includes the following elements:

- Conduct clinical studies of Cloretazine® (VNP40101M) as a single agent or in combination with standard chemotherapy treatments;
- Review the findings with the regulatory authorities from the medical and safety review of our Phase III trial in relapsed acute myelogenous leukemia (AML) of Cloretazine® (VNP40101M) which is currently on hold;
- Prepare for a potential filing of a New Drug Application for Cloretazine® (VNP40101M) with the U.S. Food and Drug Administration (FDA);
- Conduct pre-launch commercialization activities for Cloretazine® (VNP40101M);
- Provide product and make payments related to certain patient costs for clinical trials of Cloretazine® (VNP40101M) conducted under investigators' INDs;
- Provide product for clinical studies sponsored by the National Cancer Institute (NCI) of Triapine®;
- Continue to conduct internal product development with respect to our clinical and preclinical products;

- Seek development partners for our TAPET® product development program;
- Continue to support research and development being performed at Yale University and by other collaborators; and
- Continue to seek collaborative partnerships, joint ventures, co-promotional agreements or other arrangements with third parties.

Our plan of operations could be revised or amended by us as a result of many factors, including, among other things, developments with respect to our drug trials and other research projects and the amount of cash and other resources available to us.

We have five research and development projects, which include two product candidates in clinical trials (Cloretazine® (VNP40101M) and Triapine®), two product development programs in preclinical development (VNP40541 and hydrazone compounds) and one drug delivery technology (TAPET®) for which we are seeking a development partner. The following table provides information concerning the commencement date of the clinical trials of Cloretazine® (VNP40101M) sponsored by us that remain open for patient accrual as of November 1, 2007:

Trial	Trial Commencement Date
Phase II trial in small cell lung cancer	September 2005
Phase II trial in elderly *de novo* poor-risk AML	May 2006

In addition to the above-listed clinical trials for Cloretazine® (VNP40101M) which are sponsored by us, two trials were initiated in August 2007 under investigators' INDs and are open to patient accrual: (i) a Phase I trial in hematopoietic cell transplantation for patients with selected, poor-prognosis hematologic malignancies, and (ii) a Phase I/II trial in malignant glioma in first relapse or progression. We provide product for these trials and incur certain costs related to patient enrollment.

On January 25, 2007, we announced that we had recorded at least nine responses in our pivotal Phase II trial of Cloretazine® (VNP40101M) in elderly patients with *de novo* poor-risk AML in the first 42 patients and that, in accordance with the trial design we would continue to a total accrual of 85 patients. On August 15, 2007, we announced that 85 patients had been enrolled to this trial and that certain sites would remain open and continue to accrue patients to conduct a electrocardiograph evaluation (QT/QTc) sub-study. We plan on presenting preliminary information from the trial at the American Society of Hematology Meeting in December 2007. There can be no assurance as to the results of this trial or the timing of completion of this trial, and there should be no inference that the trial has achieved favorable results to date.

On May 23, 2007, we announced that we would suspend enrollment and further patient treatment in our Phase III clinical study of Cloretazine® (VNP40101M) for patients with AML pending a detailed review of all of the data from the trial. This decision was based on the recommendation of the trial's independent DSMB after a planned interim analysis. The Phase III trial is a double-blind placebo-controlled randomized evaluation of an experimental treatment consisting of Ara-C plus Cloretazine® (VNP40101M) versus a control arm regimen of Ara-C and placebo. The trial is designed to accrue patients in first relapse AML whose first complete remission (CR) was more than three months but less than twenty-four months in duration. Patients are stratified according to (i): age, greater than or less than 60 years and (ii) length of the first CR, more than or less than 12 months in duration. The primary endpoint for the trial is the objective response rate, defined as CR plus CRp (a complete remission with incomplete recovery of platelet count). Secondary endpoints include time to progression, duration of response, overall survival and toxicity.

The DSMB's review of clinical data from the first 210 treated patients resulted in a recommendation that enrollment and further treatment of patients on study be suspended. The DSMB's recommendation was based on their evaluation that any advantage in complete remission could be compromised by the observed on-study mortality.

In May, during a teleconference with the FDA initiated by us regarding the suspension of the Phase III trial, the FDA informed us that the trial would be placed on hold.

On November 7, 2007, we announced that discussions with the DSMB for the trial regarding the findings of the medical and safety review had been completed and the next step of the process is to present the findings and recommendations to the regulatory authorities. There can be no assurance that the regulatory authorities will allow continuation of the Phase III trial or what the timing or conditions of any such continuation might be. The regulatory authorities could require us to modify the trial protocol which could result in the need to repeat trials or conduct additional trials, any of which could result in extensive delays in the development of Cloretazine® (VNP40101M).

The National Cancer Institute (NCI) is sponsoring clinical trials of Triapine®. We provide product for the NCI trials.

Completion of clinical trials may take several years or more and the length of time can vary substantially according to the type, complexity, novelty and intended use of a product candidate. Factors that can cause delay or termination of our clinical trials include:

- slow patient enrollment;
- long period of time required to track safety and effectiveness;
- lack of sufficient supplies of the product candidate;
- adverse medical events or side effects in treated patients;
- lack of effectiveness of the product candidate being tested;
- negative or equivocal findings of the data safety monitoring board, or DSMB, for a trial; and
- lack of sufficient funds.

The amount and types of costs incurred during a clinical trial vary depending upon the type of product candidate, the disease treated and the nature of the study.

We budget and monitor our research and development costs by category, as opposed to by product or study. Significant categories of costs include personnel, clinical, third party research and development services, and laboratory supplies. The cost to take a product candidate through clinical trials is dependent upon, among other things, the targeted disease indications, the timing, size and dosing schedule of the clinical trials for such product candidate, the number of patients enrolled in each trial and the speed at which patients are enrolled and treated. We could incur increased product development costs if we experience delays in trial enrollment, the evaluation of clinical trial results, or in applying for or obtaining regulatory approvals for any reason including the possible reasons for delay described above. These uncertainties and variability make it difficult to accurately predict the future cost of or timing to complete our product development projects.

We cannot be certain that any of our products will prove to be safe or effective, will achieve the safety and efficacy needed to proceed through Phase III or registrational clinical trials, will receive regulatory approvals, or will be successfully commercialized. Our clinical trials might prove that our product candidates may not be effective in treating disease or may have undesirable or unintended side effects, toxicities or other characteristics that require us to cease further development of the product.

We expect that we will need to enter into and complete Phase III or registrational clinical trials of our products in order to apply for regulatory approval. If we achieve successful completion of Phase III or registrational trials, which have commenced or which we may in the future commence, of which there can be no certainty, we intend to submit the results to the FDA to support an application for regulatory approval of the product.

Given the uncertainties related to pharmaceutical product development, we are currently unable to reliably estimate when, if ever, our product candidates will generate revenue and cash flows. We do not expect to receive net cash inflows from any of our major research and development projects until and unless a product candidate becomes a profitable commercial product.

Critical Accounting Policies and Estimates

The accompanying discussion and analysis of our financial condition and results of operations are based upon our consolidated financial statements and the related disclosures, which have been prepared in accordance with accounting principles generally accepted in the United States. The preparation of these consolidated financial statements requires us to make estimates and assumptions that affect the amounts reported in our consolidated financial statements and accompanying notes. These estimates form the basis for making judgments about the carrying values of assets and liabilities. We base our estimates and judgments on historical experience and on various other assumptions that we believe to be reasonable under the circumstances. Actual results could differ materially from these estimates.

We believe the following policies to be the most critical to an understanding of our financial condition and results of operations because they require us to make estimates, assumptions and judgments about matters that are inherently uncertain.

Research and Development Expenses

We record research and development expenses as incurred. We disclose clinical trials expenses and other research and development expenses as separate components of research and development expense in our consolidated statements of operations to provide more meaningful information to our investors. These expenses are based, in part, on estimates of certain costs when incurred. The effect of any change in the clinical trials expenses and other research and development expenses would be reflected in the period such determination was made.

Income Taxes

The Company adopted the provisions of Financial Accounting Standards Board Interpretation No. 48, "*Accounting for Uncertainty in Income Taxes*" (FIN 48) on January 1, 2007. The adoption of FIN 48 did not have a material impact on our consolidated financial position or results of operations. We provide deferred income taxes for the future tax consequences of temporary differences between the financial statement carrying amounts and the tax basis of assets and liabilities, and on operating loss and tax credit carryforwards. Except for the provisions recorded for minimum state capital taxes and the sales recorded of certain research and development tax credits to the State of Connecticut, we have not recorded a provision or benefit for income taxes in the consolidated financial statements due to recurring historical losses. Accordingly, we have provided a full valuation allowance for our deferred income tax asset as of September 30, 2007. In the event we were to determine that we would be able to realize deferred income tax assets in the future, an adjustment would be made to reduce the valuation allowance in the period of determination.

The Company and its subsidiaries file a consolidated U.S. federal income tax return and tax returns in Connecticut and foreign jurisdictions. With limited exceptions, and due to the impact of net operating loss and other credit carryforwards, we may effectively be subject to U.S. federal and Connecticut state income tax examinations for periods beginning with 1993. Our foreign affiliates are subject to examination by tax authorities for periods beginning with 2004.

We recognize accrued interest and penalties related to unrecognized taxes as additional tax expense. During the year ended December 31, 2006 and the nine months ended September 30, 2007, we did not recognize any interest and penalties.

Stock-Based Compensation

For the nine-month periods ended September 30, 2007 and 2006, we recognized $3.4 million and $1.4 million of stock-based compensation expense in accordance with Statement of Financial Accounting Standard 123 (revised 2004), "*Share-Based Payment*," (SFAS 123R), which we adopted as of January 1, 2006 using the modified prospective method. Prior to the adoption of SFAS 123R, we accounted for share-based payments to employees using APB Opinion No. 25's, "*Accounting for Stock Issued to Employees*," intrinsic value method and, as such, generally recognized no compensation cost

for employee stock options. Under the modified prospective application method, prior periods are not restated for the effect of SFAS 123R. We use the straight-line attribution method for all stock option grants.

Employee stock-based compensation is estimated at the date of grant using the fair value of the stock awards and is recognized as expense ratably over the requisite service period. Stock-based compensation cost recognized is based on (i) the requirement of SFAS 123R for all share-based payments granted on or after January 1, 2006 and (ii) the requirements of SFAS 123 for all awards granted to employees prior to January 1, 2006 that remained unvested as of that date.

As of September 30, 2007, the total compensation cost related to unvested awards of restricted stock and stock options not yet recognized in the statement of operations was approximately $5.9 million, which will be recognized throughout the period ending January 2010.

See Note 6 to our Condensed Consolidated Financial Statements contained in Item 1 of this Quarterly Report on Form 10-Q for further information regarding stock-based compensation expense.

Results of Operations

Comparison of the Three-Month Periods Ended September 30, 2007 and 2006

Revenues. Revenues from technology license fees were $6,000 for each of the three-month periods ended September 30, 2007 and 2006, respectively. We have no material source of revenues.

Research and Development Expenses. Total research and development (R&D) expenses were $6.3 million and $5.6 million for the three-month periods ended September 30, 2007 and 2006, respectively, as a result of higher other R&D expenses of $450,000 and higher clinical trials expenses of $205,000. The increase in other R&D expenses was primarily due to additional personnel hired and higher other costs to support a potential registration filing for Cloretazine® (VNP40101M), and higher 2007 stock-based compensation expense of $229,000 for employees included in the other R&D group. The increase in clinical trials expenses was primarily due to higher drug production costs of $120,000 for Cloretazine® (VNP40101M), and higher 2007 stock-based compensation expense of costs of $134,000 for employees included in the clinical group.

Marketing, General and Administrative Expenses. Marketing, general and administrative expenses were $2.3 million for the three-month period ended September 30, 2007 as compared to $1.2 million for the same period in 2006. The increase was primarily due to medical advisory board meetings and higher 2007 stock-based compensation expense for employees included in the marketing, general and administrative group and our directors.

Interest Income. Interest income was $938,000 for the three months ended September 30, 2007, as compared to $502,000 for the same 2006 period. The increase was due to higher invested balances in 2007 as a result of the proceeds received from the issuance of our convertible senior notes and warrants in February 2007.

Interest Expense. Interest expense, which included amortization of deferred issuance costs, original issue discount, and assigned warrant value, of $1.4 million was recorded for the three months ended September 30, 2007 related to our convertible senior notes and warrants issued in February 2007.

Other Expense, Net. Other expense, net was $3,000 for the three-month period ended September 30, 2006 due to foreign currency exchange rate fluctuations for payments to a vendor outside the U.S. denominated in a foreign currency.

Income Taxes. For the three-month periods ended September 30, 2007 and 2006, a provision for state taxes of $3,000 and $10,000, respectively, was recorded.

Net Loss. As a result of the foregoing increases in expenses, the net loss was $9.0 million, or $0.13 per share based on weighted average shares outstanding of 67.7 million, for the three months ended September 30, 2007, compared to a net loss of $6.3 million, or $0.10 per share based on weighted average shares outstanding of 66.2 million, for the same 2006 period.

Comparison of the Nine-Month Periods Ended September 30, 2007 and 2006

Revenues. Revenues from technology license fees were $16,000 for each of the nine-month periods ended September 30, 2007 and 2006, respectively. We have no material source of revenues.

Research and Development Expenses. Total research and development (R&D) expenses were $18.7 million and $16.5 million for the nine-month periods ended September 30, 2007 and 2006, respectively, as a result of higher other R&D expenses of $1.4 million and higher clinical trials expenses of $798,000. The increase in other R&D expenses was primarily due to additional personnel hired and other higher costs to support a potential registration filing for Cloretazine® (VNP40101M), a $200,000 gift to support research projects at a Yale University laboratory, and higher 2007 stock-based compensation expense of $662,000 for employees included in the other R&D group, partially offset by lower preclinical drug production costs of $457,000. The increase in clinical trials expenses was primarily due to higher drug production costs of $411,000 for Cloretazine® (VNP40101M) and higher 2007 stock-based compensation expense of costs of $317, 000 for employees included in the clinical group.

Marketing, General and Administrative Expenses. Marketing, general and administrative expenses were $6.4 million for the nine-month period ended September 30, 2007 as compared to $4.3 million for the same period in 2006. The increase was primarily due to higher 2007 stock-based compensation expense for employees included in the marketing, general and administrative group and our directors, medical advisory board meetings and higher patent fees.

Interest Income. Interest income was $2.6 million for the nine months ended September 30, 2007, as compared to $1.6 million for the same 2006 period. The increase was due to higher invested balances as a result of the proceeds received from our convertible senior notes and warrants issued in February 2007, and, to a lesser extent, higher interest rates in 2007.

Interest Expense. Interest expense, which included amortization of deferred issuance costs, original issue discount, and assigned warrant value, of $3.7 million was recorded for the nine months ended September 30, 2007 related to our convertible senior notes and warrants issued in February 2007.

Other Expense, Net. Other expense, net was $4,000 for the nine months ended September 30, 2007, as compared to $31,000 for the same 2006 period due to foreign currency exchange rate fluctuations for payments to a vendor outside the U.S. denominated in a foreign currency.

Income Taxes. For the nine-month periods ended September 30, 2007 and 2006, a provision (benefit) for state taxes of ($269,000) and $34,000, respectively, was recorded. Included in the 2007 amount was a state tax benefit of $281,000 for the sale of certain research and development tax credits to the State of Connecticut.

Net Loss. As a result of the foregoing increases in expenses, the net loss was $25.8 million, or $0.39 per share based on weighted average shares outstanding of 66.8 million, for the nine months ended September 30, 2007, compared to a net loss of $19.2 million, or $0.29 per share based on weighted average shares outstanding of 66.2 million, for the same 2006 period.

Liquidity and Capital Resources

At September 30, 2007, we had cash and cash equivalents of $68.0 million, compared to $30.9 million at December 31, 2006. The increase in 2007 was due primarily to net proceeds of $55.2 million from a private placement of convertible senior notes and warrants, described below, offset by cash used to fund operating activities of $17.7 million and acquisitions of capital equipment of $374,000. Cash used in operations was primarily to fund clinical and preclinical product development activities as well as for working capital and general corporate purposes.

Cash Used in Operating Activities

Cash used in operating activities is primarily a result of our net loss. However, operating cash flows differ from net loss as a result of non-cash charges, changes in operating assets and liabilities, or differences in the timing of cash flows and earnings/expense recognition.

Significant components of cash used in operating activities are as follows:

Receivables and prepaid expenses decreased $55,000 and $89,000 during the nine-month periods ended September 30, 2007 and 2006, respectively. The decreases were primarily due to lower prepaid insurance expense as the timing of insurance premium payments differed from the recognition of insurance expense.

Current liabilities increased $1.4 million and $1.0 million during the nine-month periods ended September 30, 2007 and 2006, respectively. The increase in 2007 was primarily due to interest accrued related to the convertible senior notes issued in February 2007, and higher accounts payable and accrued expenses resulting from increased cost associated with late-stage clinical development of Cloretazine® (VNP40101M). The increase in 2006 was primarily due to higher accounts payable and accrued expenses resulting from increased costs associated with preclinical development and late-stage clinical development of Cloretazine® (VNP40101M).

Cash Used in Investing Activities

Cash used in investing activities relates to the acquisition of capital equipment. Capital expenditures of $374,000 and $42,000 for the nine months ended September 30, 2007 and 2006, respectively, were primarily for leasehold improvements, computer software and computer hardware. Capital expenditures for fiscal 2007 are not expected to exceed $600,000.

Cash Provided by Financing Activities

Cash provided by financing activities is primarily related to capital raised from our sale of convertible senior notes and warrants, and proceeds from common stock issuances under our employee stock plans. For the nine months ended September 30, 2007, we received net proceeds of $55.2 million from a private placement of convertible senior notes and warrants, described below, and $14,000 from the issuance of 15,289 shares of our common stock under employee stock plans. For the nine months ended September 30, 2006, we received proceeds of $76,000 from the issuance of 113,026 shares of our common stock under employee stock plans. All proceeds are being and will be used to fund clinical and preclinical product development activities, and for working capital and general corporate purposes.

On February 20, 2007, we completed the sale of $60 million aggregate principal amount of our 7.75% convertible senior notes due 2012 and warrants to purchase up to 7,800,000 additional shares of our common stock to an initial purchaser for resale in a private placement to qualified institutional buyers pursuant to Rule 144A promulgated under the Securities Act of 1933, as amended, or the Act, to persons outside the United States under Regulation S under the Act and to institutional investors that are accredited investors within the meaning of Rule 501 of Regulation D under the Act. We received net proceeds of approximately $55.2 million from the sale of the notes and warrants.

We are obligated to pay the principal amount of the notes in cash on the maturity date, February 15, 2012. On or after, but not prior to, February 15, 2010, we have the right to redeem some or all of the notes for cash at any time, at a redemption price equal to 100% of the principal amount plus accrued and unpaid interest to, but not including, the redemption date. Upon certain fundamental changes (as described below), holders of notes will have the right, subject to various conditions and restrictions, to require us to repurchase their notes, in whole or in part, at 100% of the principal amount plus accrued and unpaid interest up to, but not including, the repurchase date.

The notes bear interest at a rate of 7.75% per year, payable on February 15 and August 15 of each year, beginning on August 15, 2007. Interest may be paid at the Company's option in cash or registered shares of common stock or some combination of cash and registered shares of common

stock having a fair market value equal to the interest payment due, in each case at our option subject to compliance with Nasdaq shareholder approval rules, from the date of issuance until repayment in full or until an earlier conversion, redemption or repurchase.

The notes and the Indenture under which they were issued restrict us from incurring indebtedness or other obligations, including senior secured indebtedness or other secured obligations, in the future.

The notes shall automatically convert at any time prior to maturity if the closing price per share of the common stock has exceeded 150% of the conversion price then in effect for at least 20 trading days within any 30-consecutive trading day period, provided that only those notes as to which we are then able to make the make-whole payment (defined below) under Nasdaq shareholder approval rules shall be automatically converted; and further provided that only those notes (i) for which a shelf registration statement was in effect with respect to the resale of the shares of common stock issuable upon automatic conversion for each day during such 30-consecutive trading day period or (ii) for which the shares issuable upon automatic conversion may be freely transferred pursuant to Rule 144(k) under the Act, shall be automatically converted. Upon any automatic conversion of the notes, we shall pay to holders an amount equal to $232.50 per $1,000 principal amount of notes so converted, less the amount of any interest paid on such notes prior to the conversion date. This payment may be made at the Company's option in cash, registered shares of common stock or some combination of cash and registered shares of common stock having a fair market value equal to the make-whole payment due.

Upon certain fundamental changes, holders of notes will have the right, subject to various conditions and restrictions, to require us to repurchase the notes, in whole or in part, at 100% of the principal amount plus accrued and unpaid interest up to, but not including, the repurchase date. If a fundamental change occurs prior to February 15, 2010, we may be required to pay a make-whole premium on the notes converted and not repurchased in connection with the fundamental change by issuing additional shares of common stock upon conversion of such notes.

If there is an event of default on the notes, the principal amount of the notes, plus accrued and unpaid interest may be declared immediately due and payable, subject to certain conditions set forth in the Indenture.

The warrants are exercisable into shares of our common stock at the option of the holder of Warrants prior to the close of business on February 15, 2010, or earlier upon redemption, at an initial exercise price of $2.00 per share. The exercise price is subject to adjustment in accordance with the terms of the warrant. The Company may redeem the outstanding warrants in whole or in part for $0.01 per warrant at any time after the warrants become exercisable if, and only if, the last sales price of our common stock equals or exceeds 150% of the exercise price per share of the warrants then in effect for any 20 trading days within a 30-consecutive trading day period and at all times during such period there is an effective registration statement relating to the resale of all the shares of common stock issuable upon exercise of the warrants. A shelf registration statement relating to the resale of the Notes and the shares of common stock issuable upon conversion of the Notes and exercise of the warrants became effective on August 3, 2007.

Future Cash Requirements

Based on our current operating plan, we estimate that our existing cash and cash equivalents totaling $68.0 million at September 30, 2007 will be sufficient to fund our operations into the third quarter of 2009. Our current operating plan does not include expenses for the commercial infrastructure and personnel necessary for us to launch Cloretazine® (VNP40101M) as a product for the treatment of AML in the United States if and when we receive regulatory approval to do so from the FDA. We will have to raise additional capital if we do not identify a sales and marketing partner and need to commercialize the product ourselves.

Our current plan of operations and cash requirements may vary materially from the planned estimates due to results of preclinical development, clinical trials, product testing, relationships with strategic partners, changes in focus and direction of our preclinical and clinical development programs,

competitive and technological advances, the regulatory process in the United States and abroad, and other factors. Based on these and other factors, we may change our plan of operations and re-allocate our resources to or from certain drug development programs or terminate or delay drug development programs.

Unless we have a product that is generating significant revenues, or generate cash from other sources, we will need to raise substantial capital to complete our product development and clinical trials and to fund operations through and beyond the third quarter of 2009, however, we cannot assure you that we will be able to raise additional capital, nor can we predict what the terms of any financing might be.

We lease our office and laboratory facilities in New Haven, Connecticut. In June 2007, we entered into an amendment of our lease to include approximately 6,500 additional square feet of office space. The term of the lease will run through December 31, 2010, unless sooner terminated or extended pursuant to the terms of the lease. We have the right to extend the term of the lease for two successive terms of five years each. The amendment provides for a change in the total base annual rent for all premises from $217,118, or $18,093 per month, to $288,618, or $24,052 per month beginning March 12, 2008.

Nasdaq Notice

On September 18, 2007, we announced we had received a letter from the Nasdaq Stock Market, Inc. dated September 17, 2007 notifying us that during the preceding 30 consecutive trading days, the bid price of our common stock had closed below the minimum bid price of $1.00 per share as required by the Nasdaq Stock Market under Marketplace Rule 4310(c)(4). The letter stated that, in accordance with Marketplace Rule 4310(c)(8)(D), we have until March 17, 2008 to demonstrate compliance with the rule (i.e. the bid price of our common stock must close at $1.00 per share or more for a minimum of 10 consecutive trading days, and under certain circumstances, more than 10 trading days).

If we are not in compliance with Marketplace Rule 4310(c)(4) by March 17, 2008, we may be granted an additional 180 calendar day compliance period if we meet the Nasdaq Capital Market initial listing criteria as set forth in Marketplace Rule 4310(c), except for the bid price requirement. If we are not eligible for an additional compliance period, Nasdaq will notify us that our securities will be delisted. At that time, we may appeal the decision to a Nasdaq Listing Qualifications Panel.

Off-Balance Sheet Financing

We have no off-balance sheet arrangements that have a material current effect or are reasonably likely to have a material future effect on our financial position or results of operations.

Contractual Obligations

In February 2007, the Company completed a private placement of $60 million aggregate principal amount of 7.75% convertible senior notes (the "Notes") and warrants to purchase up to an additional 7.8 million shares of its common stock. The Company is required to pay interest in cash or in registered shares of its common stock on the Notes semi-annually on February 15 and August 15. The Company is obligated to pay the principal amount of the Notes in cash on the maturity date, February 15, 2012, unless converted or redeemed under certain circumstances prior to the maturity date.

In March 2007, we made a gift of $200,000 to support research projects through March 31, 2008 at a Yale University research laboratory. The gift is payable in four equal quarterly installments beginning April 1, 2007. Included in our current liabilities at September 30, 2007 is $100,000 for the balance of the gift.

In June 2007, we entered into an amendment of our lease for our office and laboratory facilities to include approximately 6,500 additional square feet of office space. The term of the lease will run through December 31, 2010, unless sooner terminated or extended pursuant to the terms of the lease. The amendment provides for a change in the total base annual rent for all premises from $217,118, or $18,093 per month, to $288,618, or $24,052 per month beginning March 12, 2008.

During the first nine months of 2007, except for the aforementioned obligations for the Yale gift, lease payments and the payments of the principal amount of the Notes on the maturity date, there were no significant changes in our reported payments due under contractual obligations and disclosed contingent contractual obligations related to potential milestone payments under our license agreements and potential cancellation fees under various agreements at December 31, 2006.

Available Information

The following information can be found on our website at http://www.vionpharm.com or may be obtained free of charge by contacting our Investor Relations Department at (203) 498-4210 or by sending an e-mail message to info@vionpharm.com:

- our annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and any amendments to those reports as soon as reasonably practicable after such material is electronically filed with the Securities and Exchange Commission;
- our policies related to corporate governance, including the charter for the Nominating and Governance Committee of our Board of Directors, our code of ethics and business conduct applying to our directors, officers and employees, and our code of ethics applying to our chief executive officer and senior financial officials; and
- the charters of the Audit Committee and the Compensation Committee of our Board of Directors.

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

We are exposed to market risk, including changes to interest rates associated with our cash equivalents, and foreign currency exchange rates. The following describes the nature of these risks which we do not believe to be material to us.

Our cash equivalents are generally highly liquid investments in money market funds and U.S. treasury securities. These investments are subject to interest rate risk and as such our future investment income may fall short of expectations due to changes in interest rates. However, the conservative nature of our investments mitigates our interest rate exposure. Our investments are held for purposes other than trading and we believe that we currently have no material adverse market risk exposure. The weighted-average interest rate on cash equivalents held at September 30, 2007 was approximately 5.2%.

We have contracts with a vendor outside the U.S. that are denominated in a foreign currency. To date, fluctuations in this currency have not materially impacted our results of operations. We have no derivative financial instruments. We do not believe we have material exposures to changes in foreign currency exchange rates.

ITEM 4. ***Controls and Procedures***

(a) Disclosure controls and procedures – Our management, with the participation of our chief executive officer and chief financial officer, has evaluated the effectiveness of our disclosure controls and procedures as of September 30, 2007. Based on that evaluation, our Chief Executive Officer and Chief Financial Officer have concluded that our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended) were effective to ensure that the information required to be disclosed in the reports that we file or submit under the Securities Exchange Act of 1934, as amended, is recorded, processed, summarized and reported within the time periods specified in the Securities and Exchange Commission rules and forms.

(b) Changes in internal control over financial reporting – There has been no change in our internal control over financial reporting during the period covered by this quarterly report or in other factors that has materially affected or is reasonably likely to materially affect the Company's internal control.

PART II

OTHER INFORMATION

ITEM 1A. ***Risk Factors***

There are many risks and uncertainties that can affect our future business, financial performance or share price. In addition to the other information set forth in this report, you should carefully consider the factors discussed in Part I, "Item 1A. Risk Factors" in our Annual Report on Form 10-K for the fiscal year ended December 31, 2006. Below are new or updated risk factors from those appearing in our Annual Report on Form 10-K and our Quarterly Report on Form 10-Q for the quarter ended June 30, 2007. In addition to the other information set forth in this report, you should carefully consider the following factors, which could materially affect our business, financial condition or future results. The risks described below are not the only risks facing our Company. Additional risks and uncertainties not currently known to us or that we currently deem to be immaterial also may materially adversely affect our business, financial condition and/or operating results.

We do not have any products approved for sale. All of our proposed products are in clinical trials or preclinical development. If our trials are delayed or achieve unfavorable results, we might not be able to obtain regulatory approval for our products.

Our product candidates are all pharmaceutical products. We must conduct extensive testing of our product candidates, including in human clinical trials, before we can apply for or obtain regulatory approval to sell our products. These tests and trials may not achieve favorable results. We would need to reevaluate any drug that did not test favorably and either alter the drug or dose, modify the trial protocol, commence additional trials, or abandon the drug development project completely. In such circumstances, we would not be able to apply for or obtain regulatory approval for an extended period of time, if ever. See "—We may be delayed in, and limited or precluded from, obtaining regulatory approval of Cloretazine® (VNP40101M) given that our Phase III clinical trial of Cloretazine® (VNP40101M) in relapsed AML has been suspended."

Factors that can cause delay or termination of our clinical trials include:

- slow patient enrollment;
- long treatment time required to demonstrate safety and effectiveness;
- lack of sufficient supplies of the product candidate;
- adverse medical events or side effects in treated patients;
- lack of effectiveness of the product candidate being tested;
- negative or equivocal findings of the DSMB for a trial; and
- lack of sufficient funds.

If we do not obtain regulatory approval for our product candidates, we will not be able to sell our products and the value of our company and our financial results will be materially adversely affected.

We cannot sell or market our drugs without regulatory approval. If we cannot obtain regulatory approval for our products, the value of our company and our financial results will be materially adversely affected. In the United States, we must obtain approval from the FDA for each drug that we intend to sell. The current status of our potential products is as follows:

- Cloretazine® (VNP40101M) is being evaluated in three clinical trials sponsored by us including a Phase III trial in relapsed AML in combination with Ara-C, a pivotal Phase II trial as a single agent in elderly patients with *de novo* poor-risk AML, and a Phase II trial as a single agent in small-cell lung cancer; and
- The NCI is sponsoring clinical trials of Triapine®.

The Phase III clinical trial of Cloretazine® (VNP40101M) in relapsed AML in combination with Ara-C was suspended and subsequently put on hold by the FDA. See "—We may be delayed in, and

limited or precluded from, obtaining regulatory approval of Cloretazine® (VNP40101M) given that our Phase III clinical trial of Cloretazine® (VNP40101M) in relapsed AML has been suspended."

If and when we complete the several phases of clinical testing for each drug candidate, we will submit our test results to the FDA. FDA review may generally take up to two years and approval is not assured. Foreign governments also regulate drugs distributed outside the United States. A delay in obtaining regulatory approvals for any of our drug candidates will also have a material adverse effect on our business.

We may be delayed in, and limited or precluded from, obtaining regulatory approval of Cloretazine® (VNP40101M) given that our Phase III clinical trial of Cloretazine® (VNP40101M) in relapsed AML has been suspended.

On May 23, 2007, we announced that we would suspend enrollment and further patient treatment in our Phase III clinical study of Cloretazine® (VNP40101M) for patients with AML pending a detailed review of all of the data from the trial. This decision was based on the recommendation of the trial's independent DSMB after a planned interim analysis. The Phase III trial is a double-blind placebo-controlled randomized evaluation of an experimental treatment consisting of Ara-C plus Cloretazine® (VNP40101M) versus a control arm regimen of Ara-C and placebo. The trial is designed to accrue patients in first relapse AML whose first complete remission (CR) was more than three months but less than twenty-four months in duration. Patients are stratified according to (i): age, greater than or less than 60 years and (ii) length of the first CR, more than or less than 12 months in duration. The primary endpoint for the trial is the objective response rate, defined as CR plus CRp (a complete remission with incomplete recovery of platelet count). Secondary endpoints include time to progression, duration of response, overall survival and toxicity.

The DSMB's review of clinical data from the first 210 treated patients resulted in a recommendation that enrollment and further treatment of patients on study be suspended. The DSMB's recommendation was based on their evaluation that any advantage in complete remission could be compromised by the observed on-study mortality.

During a teleconference with the FDA initiated by us regarding the suspension of the Phase III trial, the FDA informed us that the trial would be placed on hold.

On November 7, 2007, we announced that discussions with the DSMB related to a medical and safety review of the trial had been completed and that the next step of the process is to present our findings and recommendations to the regulatory authorities.

There can be no assurance that this trial will be resumed or, that, if resumed, it will be completed or what the timing to completion might be. Any resumption of the trial will require regulatory approval. Such regulatory approval might not be received. In addition, based on an analysis of the data, the trial protocol might need to be modified, and such modification could result in a need to repeat the trial or conduct additional trials, and in additional and extensive delays in receiving regulatory approval to recommence the trial or to conduct additional trials. Further, depending upon the results of the medical review of the data from our suspended Phase III trial of Cloretazine® (VNP40101M) and Ara-C in relapsed AML, our pivotal Phase II trial of Cloretazine® (VNP40101M) as a single agent in elderly patients with *de novo* poor risk AML could be affected.

If we cannot resume the Phase III trial of Cloretazine® (VNP40101M) or the resumption of the Phase III trial is delayed or the results of the medical review of the data from the Phase III trial adversely affect our clinical trials of Cloretazine® (VNP40101M) as a single agent, our business, operations and prospects could be materially adversely affected.

In the near term, we are heavily dependent on the success of our lead product candidate Cloretazine® (VNP40101M) which is still under development. If Cloretazine® (VNP40101M) is not successful in clinical trials or we do not obtain FDA approval of Cloretazine® (VNP40101M), or if FDA delays approval or narrows the indications for which we may market Cloretazine® (VNP40101M), our business will be materially adversely affected.

We anticipate that our ability to generate revenues in the foreseeable future will depend on the successful development and commercialization of Cloretazine® (VNP40101M). The commercial success

of Cloretazine® (VNP40101M) will depend on several factors, including resumption and successful completion of our ongoing Phase III trial and successful completion of our pivotal Phase II clinical trial for Cloretazine® (VNP40101M); receipt of approvals from the FDA and similar foreign regulatory authorities; establishing commercial manufacturing capabilities through third party manufacturers; successfully launching commercial sales of the products, either ourselves or through third parties; and acceptance of the products in the medical community and by third party payers, none of which can be assured. If the data from our Phase III trial and our ongoing pivotal Phase II clinical trial for Cloretazine® (VNP40101M) are not satisfactory, we may not proceed with the filing for regulatory approval or we may be forced to delay the filing. Even if the FDA and similar foreign regulatory authorities do grant approval for Cloretazine® (VNP40101M), they may narrow the indications for which we are permitted to market it, may pose other restrictions on the use or marketing of the product, or may require us to conduct additional post-marketing trials. A narrowed indication or other restrictions may limit the market potential for Cloretazine® (VNP40101M) and any obligation to conduct additional clinical trials would result in increased expenditures and lower revenues. If we are not successful in commercializing our lead product candidate Cloretazine® (VNP40101M), or are significantly delayed or limited in doing so, our business will be materially adversely affected and we may need to curtail or cease operations.

In particular, as set forth above, the timing of a filing with respect to the data from our Phase III clinical trial is particularly uncertain, given that, on recommendation from the trial's independent DSMB, the trial has been suspended pending a detailed review of all the data from the trial. There can be no assurance as to the results of the evaluation of the data from this trial or the timing of completion of this evaluation and there can be no assurance that we will obtain regulatory authorization to recommence the Phase III trial. The trial may need to be terminated or modified and there can be no assurance that the Phase III trial will continue.

On January 25, 2007, we announced that we had recorded at least nine responses in our pivotal Phase II trial of Cloretazine® (VNP40101M) in elderly patients with *de novo* poor-risk AML. The trial is designed to continue to a total accrual of 85 patients if there have been at least nine responses in the first 42 patients. In August 2007, we announced that 85 patients had been enrolled to this trial and that certain sites would remain open and continue to accrue patients to conduct a electrocardiograph evaluation (QT/QTc) sub-study. We plan on presenting preliminary information from the trial at the American Society of Hematology meeting in December 2007. There can be no assurance as to the results of this trial or the timing of completion of this trial, and there should be no inference that the trial has achieved favorable results to date. There can be no assurance as to whether the results of the medical review of the data from our suspended Phase III trial of Cloretazine® (VNP40101M) in relapsed AML would or would not have any effect on our pivotal Phase II trial of Cloretazine® (VNP40101M) as a single agent and other clinical trials.

As with all drug development, we would need to reevaluate Cloretazine® (VNP40101M) if it does not test favorably in either of these trials. In such event, we would alter the drug or dose as used in the trial, modify the clinical trial protocol, commence additional trials, or abandon the drug development project. In any such event, our business, operations and prospects would be materially adversely affected, and our ability to apply for or obtain regulatory approval might be delayed, or we might not be able to obtain regulatory approval at all.

If we fail to recruit and retain key personnel, our research and development programs may be delayed.

We are highly dependent upon the efforts of our senior management and scientific personnel, particularly, Alan Kessman, our chief executive officer and director; Howard B. Johnson, our president and chief financial officer; Ann Lee Cahill, our vice president, clinical development; Ivan King, Ph.D., our vice president, research and development; Meghan Fitzgerald, our vice president and chief business officer; Aileen Ryan, our vice president, regulatory affairs and James Tanguay, Ph.D., our vice president, chemistry, manufacturing & control. There is intense competition in the drug development industry for qualified scientific and technical personnel. Since our business is very technical and specialized, we need to continue to attract and retain such people. We may not be able

to continue to attract and retain the qualified personnel necessary for developing our business, particularly in light of our need to raise additional financing in order to continue our operations through and beyond the third quarter of 2009. We have no key man insurance policies on any of the officers listed above and we only have an employment agreement with Mr. Kessman. If we lose the services of our management and scientific personnel or fail to recruit other scientific and technical personnel, our research and product development programs will be significantly and detrimentally affected.

If Yale does not conduct research relating to products we would like to pursue, we may never realize any benefits from our funding provided to Yale.

Through September 30, 2007, we have paid approximately $10.7 million to Yale for research funding. We have agreed to pay an additional $100,000 to support the research activities of one of our directors, an affiliate of Yale, through March 31, 2008. We may continue to support certain research projects at Yale. We generally do not have the right to control the research that Yale is conducting with our funding, and our funds may not be used to conduct research relating to products that we would like to pursue. Additionally, if the research being conducted by Yale results in technologies that Yale has not already licensed or agreed to license to us, we may need to negotiate additional license agreements or we may be unable to utilize those technologies.

Our common stock could be delisted from the Nasdaq Capital Market[SM]. Among other things, delisting from the Nasdaq Capital Market[SM] would cause us to become ineligible to use Form S-3 for the registration of the resale of our securities held by certain of our security holders.

On September 18, 2007, we announced we had received a letter from the Nasdaq Stock Market, Inc. dated September 17, 2007 notifying us that during the preceding 30 consecutive trading days, the bid price of our common stock had closed below the minimum bid price of $1.00 per share as required by the Nasdaq Stock Market under Marketplace Rule 4310(c)(4). The letter stated that, in accordance with Marketplace Rule 4310(c)(8)(D), we have until March 17, 2008 to demonstrate compliance with the rule (i.e. the bid price of our common stock must close at $1.00 per share or more for a minimum of 10 consecutive trading days, and under certain circumstances, more than 10 trading days).

If we are not in compliance with Marketplace Rule 4310(c)(4) by March 17, 2008, we may be granted an additional 180 calendar day compliance period if we meet the Nasdaq Capital Market initial listing criteria as set forth in Marketplace Rule 4310(c), except for the bid price requirement. If we are not eligible for an additional compliance period, Nasdaq will notify us that our securities will be delisted. At that time, we may appeal the decision to a Nasdaq Listing Qualifications Panel. There can be no assurance that we will be able to maintain the listing of our common stock on Nasdaq.

In the event of such delisting, trading, if any, in our common stock may then continue to be conducted in the non-Nasdaq over-the-counter market in what are commonly referred to as the electronic bulletin board and the "pink sheets." As a result, an investor may find it more difficult to dispose of or obtain accurate quotations as to the market value of our common stock. In addition, we would be subject to a Rule promulgated by the SEC that, if we fail to meet criteria set forth in such Rule, imposes various practice requirements on broker-dealers who sell securities governed by the Rule to persons other than established customers and accredited investors. For these types of transactions, the broker-dealer must make a special suitability determination for the purchaser and have received the purchaser's written consent to the transactions prior to the sale. Consequently, the Rule may have a materially adverse effect on the ability of broker-dealers to sell our securities, which may materially affect the ability of stockholders to sell our securities in the secondary market.

A delisting from the Nasdaq Capital Market[SM] will also make us ineligible to use Form S-3 to register the sale of shares of our common stock or to register the resale of our securities held by certain of our security holders with the SEC, thereby making it more difficult and expensive for us to register our common stock or other securities and raise additional capital. We are a party to several registration rights agreements, which require us to maintain the effectiveness of registration statements relating to the resale of shares of common stock issuable upon the exercise of outstanding warrants and upon conversion of our outstanding notes by holders of such warrants and notes. If we are

ineligible to use Form S-3, we will need to file new registration statements on some other permitted Form and maintenance of the effectiveness of such registration statements will become extremely difficult. Under the applicable registration rights agreements, we could become subject to certain liquidated damages upon and during the continuance of any such failure. We would also incur additional costs under state blue-sky laws to sell equity if we are delisted.

Our common stock price has been highly volatile, and an investment in our common stock could suffer a decline in value.

The trading price of our common stock has been highly volatile and could continue to be subject to wide fluctuations in price in response to various factors, many of which are beyond our control, including:

- positive or adverse developments with respect to obtaining regulatory approval of our proposed products;
- positive or adverse developments with respect to our drug trials;
- actual or anticipated period-to-period fluctuations in financial results;
- litigation or threat of litigation;
- failure to achieve, or changes in, financial estimates by securities analysts;
- announcements of new products or services or technological innovations by us or our competitors;
- comments or opinions by securities analysts or major stockholders;
- conditions or trends in the pharmaceutical, biotechnology and life science industries;
- announcements by us of significant acquisitions, strategic partnerships, joint ventures or capital commitments;
- additions or departures of key personnel;
- sales of our common stock;
- economic and other external factors or disasters or crises;
- limited daily trading volume; and
- developments regarding our patents or other intellectual property or that of our competitors.

In particular, on May 23, 2007, the day we announced that we would suspend enrollment and further patient treatment in our Phase III clinical study of Cloretazine® (VNP40101M) for patients with relapsed AML, our stock price fell from $2.02 per share to $.86 per share. On November 6, 2007, the last reported sale price for our common stock as quoted on the Nasdaq Capital Market℠ was $0.64.

In addition, the stock market in general, and the Nasdaq Capital Market℠ and the market for biotechnology companies in particular, have experienced significant price and volume fluctuations that have often been unrelated or disproportionate to the operating performance of those companies. Further, there has been significant volatility in the market prices of securities of life science companies. These broad market and industry factors may seriously harm the market price of our common stock, regardless of our operating performance. In the past, following periods of volatility in the market price of a company's securities, securities class action litigation has often been instituted. A securities class action suit against us could result in substantial costs, potential liabilities and the diversion of management's attention and resources.

ITEM 6. ***Exhibits***

31.1 Certification of the Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

31.2 Certification of the Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

32.1 Certification of the Chief Executive Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

32.2 Certification of the Chief Financial Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

SIGNATURES

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

Date: November 8, 2007

VION PHARMACEUTICALS, INC.

By: /s/ Howard B. Johnson
Howard B. Johnson
President and Chief Financial Officer

EXHIBIT 31.1

CERTIFICATION

I, Alan Kessman, Chief Executive Officer of Vion Pharmaceuticals, Inc., certify that:

1. I have reviewed this quarterly report on Form 10-Q (this "report") of Vion Pharmaceuticals, Inc. (the "registrant");

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 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 third fiscal quarter) 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 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: November 8, 2007

/s/ Alan Kessman
Alan Kessman
Chief Executive Officer

EXHIBIT 31.2

CERTIFICATION

I, Howard B. Johnson, Chief Financial Officer of Vion Pharmaceuticals, Inc., certify that:

1. I have reviewed this quarterly report on Form 10-Q ("this report") of Vion Pharmaceuticals, Inc. (the "registrant");

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 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 third fiscal quarter) 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 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: November 8, 2007

/s/ Howard B. Johnson
Howard B. Johnson
Chief Financial Officer

EXHIBIT 32.1

WRITTEN STATEMENT OF THE CHIEF EXECUTIVE OFFICER

Pursuant to 18 U.S.C. Section 1350, I, the undersigned Chief Executive Officer of Vion Pharmaceuticals, Inc. (the "Company"), hereby certify that the Quarterly Report on Form 10-Q of the Company for the quarter ended September 30, 2007 (the "Report") fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and that information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: November 8, 2007

/s/ Alan Kessman
Alan Kessman
Chief Executive Officer

EXHIBIT 32.2

WRITTEN STATEMENT OF THE CHIEF FINANCIAL OFFICER

Pursuant to 18 U.S.C. Section 1350, I, the undersigned Chief Financial Officer of Vion Pharmaceuticals, Inc. (the "Company"), hereby certify that the Quarterly Report on Form 10-Q of the Company for the quarter ended September 30, 2007 (the "Report") fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and that information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: November 8, 2007

/s/ Howard B. Johnson
Howard B. Johnson
Chief Financial Officer