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

FORM 10-Q

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

For the quarterly period ended March 31, 2019

Or

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

For the transition period from to .

Commission File Number: 000-21088

VICAL INCORPORATED

(Exact name of registrant as specified in its charter)

Delaware	**93-0948554**
(State or other jurisdiction of incorporation or organization)	**(I.R.S. Employer Identification No.)**
10390 Pacific Center Court San Diego, California	**92121**
(Address of principal executive offices)	**(Zip Code)**

(858) 646-1100
(Registrant's telephone number, including area code)

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

Title of each class	Trading symbol(s)	Name of each exchange on which registered
Common Stock, $0.01 par value per share	VICL	The Nasdaq Capital Market

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

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

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

Large accelerated filer	☐	Accelerated filer	☐
Non-accelerated filer	☐	Smaller reporting company	☒
Emerging growth company	☐		

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

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

Indicate the number of shares outstanding of each of the issuer's classes of common stock, as of the latest practicable date.

Total shares of common stock outstanding at April 22, 2019: 22,822,716

VICAL INCORPORATED

FORM 10-Q

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ITEM 1. FINANCIAL STATEMENTS

VICAL INCORPORATED
BALANCE SHEETS
(In thousands, except par value data)
(Unaudited)

	March 31, 2019	December 31, 2018
ASSETS		
Current assets:		
Cash and cash equivalents	$ 11,259	$ 11,870
Marketable securities, available-for-sale	34,272	36,201
Receivables and other assets	826	1,128
Total current assets	46,357	49,199
Long-term investments	—	2,386
Property and equipment, net	86	100
Other assets	—	659
Total assets	$ 46,443	$ 52,344
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable and accrued expenses	$ 2,521	$ 3,551
Deferred revenue	—	30
Total current liabilities	2,521	3,581
Stockholders' equity:		
Preferred stock, $0.01 par value, 5,000 shares authorized, none issued and outstanding	—	—
Common stock, $0.01 par value, 50,000 shares authorized, 22,823 and 21,817 shares issued and outstanding at March 31, 2019 and December 31, 2018, respectively	229	218
Additional paid-in capital	490,318	490,337
Accumulated deficit	(446,642)	(442,064)
Accumulated other comprehensive income	17	272
Total stockholders' equity	43,922	48,763
Total liabilities and stockholders' equity	$ 46,443	$ 52,344

See accompanying notes to unaudited financial statements

VICAL INCORPORATED
STATEMENTS OF OPERATIONS
(In thousands, except per share data)
(Unaudited)

	Three Months Ended March 31,	
	2019	**2018**
Revenues:		
Contract revenue	$ —	$ 706
License and royalty revenue	—	10
Total revenues	—	716
Operating expenses:		
Research and development	3,882	3,664
Manufacturing and production	—	1,436
General and administrative	1,376	2,117
Total operating expenses	5,258	7,217
Loss from operations	(5,258)	(6,501)
Other income:		
Investment and other income, net	680	231
Net loss	$ (4,578)	$ (6,270)
Basic and diluted net loss per share	$ (0.21)	$ (0.29)
Weighted average shares used in computing basic and diluted net loss per share	21,998	21,828

See accompanying notes to unaudited financial statements

VICAL INCORPORATED
STATEMENTS OF COMPREHENSIVE LOSS
(In thousands)
(Unaudited)

	Three Months Ended March 31,	
	2019	**2018**
Net loss	$ (4,578)	$ (6,270)
Other comprehensive loss:		
Unrealized gain (loss) on available-for-sale and long-term marketable securities:		
Unrealized gain (loss) arising during holding period for three months ended March 31, 2019 and 2018, respectively	118	(65)
Less: Reclassification adjustment for gains included in net loss	(373)	—
Other comprehensive loss	(255)	(65)
Total comprehensive loss	$ (4,833)	$ (6,335)

See accompanying notes to unaudited financial statements

VICAL INCORPORATED
STATEMENTS OF STOCKHOLDERS' EQUITY
(In thousands)
(Unaudited)

	Common Stock					
	Number of Shares	Amount	Additional Paid-in Capital	Accumulated Deficit	Accumulated Other Comprehensive Income/(Loss)	Total Stockholders' Equity
Balance at January 1, 2019	21,817	$ 218	$ 490,337	$ (442,064)	$ 272	$ 48,763
Net loss	—	—	—	(4,578)	—	(4,578)
Other comprehensive loss	—	—	—	—	(255)	(255)
Issuance of common stock upon exercise of warrants	993	10	—	—	—	10
Issuance of common stock underlying restricted stock units net of shares withheld to settle withholding taxes	13	1	—	—	—	1
Non-cash compensation expense related to grant of equity based compensation	—	—	(19)	—	—	(19)
Balance at March 31, 2019	22,823	$ 229	$ 490,318	$ (446,642)	$ 17	$ 43,922

	Common Stock					
	Number of Shares	Amount	Additional Paid-in Capital	Accumulated Deficit	Accumulated Other Comprehensive Income/(Loss)	Total Stockholders' Equity
Balance at January 1, 2018	21,802	$ 218	$ 489,975	$ (426,738)	$ 122	$ 63,577
Net loss	—	—	—	(6,270)	—	(6,270)
Retained earnings adjustment upon adoption of ASU 2014-09	—	—	—	928	—	928
Other comprehensive loss	—	—	—	—	(65)	(65)
Issuance of common stock	—	—	—	—	—	—
Issuance of common stock underlying restricted stock units net of shares withheld to settle withholding taxes	13	—	1	—	—	1
Non-cash compensation expense related to grant of equity based compensation	—	—	47	—	—	47
Balance at March 31, 2018	21,815	$ 218	$ 490,023	$ (432,080)	$ 57	$ 58,218

See accompanying notes to unaudited financial statements

VICAL INCORPORATED
STATEMENTS OF CASH FLOWS
(In thousands)
(Unaudited)

	Three Months Ended March 31,	
	2019	**2018**
Cash flows from operating activities:		
Net loss	$ (4,578)	$ (6,270)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	13	64
Accretion of discount on short-term investments	(116)	(24)
Write-off of abandoned patents	—	267
Net gain on sale of long-term investment	(373)	—
Compensation related to stock options and awards	(19)	47
Changes in operating assets and liabilities:		
Receivables and other assets	961	3,679
Accounts payable and accrued expenses	(1,928)	(2,315)
Employee termination benefits accrual	898	168
Deferred revenue	(30)	(184)
Net cash used in operating activities	(5,172)	(4,568)
Cash flows from investing activities:		
Proceeds from the sale of long-term investment	2,469	—
Maturities of marketable securities	8,500	7,225
Purchases of marketable securities	(6,419)	(17,389)
Net cash provided by (used in) investing activities	4,550	(10,164)
Cash flows from financing activities:		
Net proceeds from issuance of common stock	11	1
Net cash provided by financing activities	11	1
Net decrease in cash, cash equivalents and restricted cash	(611)	(14,731)
Cash, cash equivalents and restricted cash at beginning of period	11,870	25,033
Cash, cash equivalents and restricted cash at end of period	$ 11,259	$ 10,302

See accompanying notes to unaudited financial statements

1. BASIS OF PRESENTATION

Vical Incorporated, or the Company, a Delaware corporation, was incorporated in April 1987 and has devoted substantially all of its resources since that time to the research and development of biopharmaceutical products, including those based on its patented DNA delivery technologies for the prevention and treatment of serious or life-threatening diseases.

The unaudited financial statements at March 31, 2019, and for the three months ended March 31, 2019 and 2018, have been prepared in accordance with the rules and regulations of the Securities and Exchange Commission, or SEC, and with accounting principles generally accepted in the United States applicable to interim financial statements. These unaudited financial statements have been prepared on the same basis as the audited financial statements included in the Company's Annual Report on Form 10-K and include all adjustments, consisting of only normal recurring accruals, which in the opinion of management are necessary to present fairly the Company's financial position as of the interim date and results of operations for the interim periods presented. Interim results are not necessarily indicative of results expected for a full year or future periods. The preparation of financial statements requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosures of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ materially from those estimates. These unaudited financial statements should be read in conjunction with the Company's audited financial statements for the year ended December 31, 2018, included in its Annual Report on Form 10-K filed with the SEC.

Cash, Cash Equivalents and Marketable Securities

Cash and cash equivalents consist of cash and highly liquid securities with original maturities at the date of acquisition of ninety days or less and that can be liquidated without prior notice or penalty. Investments with an original maturity of more than ninety days are considered marketable securities and have been classified by management as available-for-sale. These investments are classified as current assets, even though the stated maturity date may be one year or more beyond the current balance sheet date which reflects management's intention to use the proceeds from sales of these securities to fund its operations, as necessary. Such investments are carried at fair value, with unrealized gains and losses included as a separate component of stockholders' equity. Realized gains and losses from the sale of available-for-sale securities or the amounts, net of tax, reclassified out of accumulated other comprehensive income (loss), if any, are determined on a specific identification basis.

Revenue Recognition

The Company recognizes revenue when control of its products and services is transferred to its customers in an amount that reflects the consideration the Company expects to receive from its customers in exchange for those products and services. This process involves identifying the contract with a customer, determining the performance obligations in the contract, determining the contract price, allocating the contract price to the distinct performance obligations in the contract, and recognizing revenue when the performance obligations have been satisfied. A performance obligation is considered distinct from other obligations in a contract when it provides a benefit to the customer either on its own or together with other resources that are readily available to the customer and is separately identified in the contract. The Company considers a performance obligation satisfied once it has transferred control of a good or service to the customer, meaning the customer has the ability to use and obtain the benefit of the good or service. The Company recognizes revenue for satisfied performance obligations only when it determines there are no uncertainties regarding payment terms or transfer of control.

Research and Development Costs

Research and development costs are expensed as incurred. Research and development costs include salaries and personnel-related costs, supplies and materials, outside services, costs of conducting preclinical and clinical trials, facilities costs and amortization of intangible assets. The Company accounts for its clinical trial costs by estimating the total cost to treat a patient in each clinical trial, and accruing this total cost for the patient over the estimated treatment period, which corresponds with the period over which the services are performed, beginning when the patient enrolls in the clinical trial. This estimated cost includes payments to the site conducting the trial, and patient-related lab and other costs related to the conduct of the trial. Cost per patient varies based on the type of clinical trial, the site of the clinical trial, the method of administration of the treatment, and the number of treatments that a patient receives. Treatment periods vary depending on the clinical trial. The Company makes revisions to the clinical trial cost estimates in the current period, as clinical trials progress.

Manufacturing and Production Costs

Manufacturing and production costs include expenses related to manufacturing contracts and expenses for the production of plasmid DNA for use in the Company's research and development efforts. Production expenses related to the Company's research and development efforts are expensed as incurred.

Net Loss Per Share

Basic and diluted net loss per share has been computed using the weighted-average number of shares of common stock outstanding during the period. The weighted average number of shares used to compute diluted loss per share excludes any assumed exercise of stock options and warrants and any assumed issuance of common stock under restricted stock units (RSUs) as the effect would be antidilutive. Common stock equivalents of 7.0 million and 7.2 million shares for the three months ended March 31, 2019 and 2018, respectively, were excluded from the calculation because of their antidilutive effect.

Stock-Based Compensation

The Company records its compensation expense associated with stock options and other forms of equity compensation based on their fair value at the date of grant using the Black-Scholes-Merton option pricing model. Stock-based compensation includes amortization related to stock option awards based on the estimated grant date fair value. Stock-based compensation expense related to stock options is recognized ratably over the vesting period of the option. In addition, the Company records expense related to RSUs granted based on the fair value of those awards on the grant date. The fair value related to the RSUs is amortized to expense over the vesting term of those awards. Forfeitures of stock options and RSUs are recognized as they occur.

Stock-based compensation expense for a stock-based award with a performance condition is recognized when the achievement of such performance condition is determined to be probable. If the outcome of such performance condition is not determined to be probable or is not met, no compensation expense is recognized and any previously recognized compensation expense is reversed.

Recent Accounting Pronouncements

In February 2016, the FASB issued ASU No. 2016-02, "Leases (Topic 842)." The new standard requires a lessee to record on the balance sheet the assets and liabilities for the rights and obligations created by leases with lease terms of more than 12 months and requires both lessees and lessors to disclose certain key information about lease transactions. The standard is effective for fiscal years beginning after December 15, 2018, including interim periods within those fiscal years. The Company adopted this standard during the first quarter of 2019. The adoption of this guidance did not have a material impact on the Company's financial statements and related disclosures.

2. STOCK-BASED COMPENSATION

Total stock-based compensation expense was allocated to research and development, manufacturing and production and general and administrative expense as follows (in thousands):

	Three Months Ended March 31,	
	2019	**2018**
Research and development	$ (50)	$ 28
Manufacturing and production	—	(68)
General and administrative	31	87
Total stock-based compensation expense	$ (19)	$ 47

There were no stock-based awards granted by the Company during the three months ended March 31, 2019. During the three months ended March 31, 2018, the Company granted stock-based awards with a total estimated value of $0.4 million, which were equal to 2.3% of the outstanding shares of common stock at the end of the period. At March 31, 2019, total unrecognized estimated compensation expense related to unvested stock-based awards granted prior to that date was $0.1 million, which is expected to be recognized over a weighted-average period of 1.4 years.

3. MARKETABLE SECURITIES, AVAILABLE FOR SALE

The following is a summary of available-for-sale marketable securities (in thousands):

March 31, 2019	Amortized Cost	Unrealized Gain	Unrealized Loss	Market Value
U.S. treasuries	$ 34,255	$ 17	$ —	$ 34,272
	$ 34,255	$ 17	$ —	$ 34,272

December 31, 2018	Amortized Cost	Unrealized Gain	Unrealized Loss	Market Value
U.S. treasuries	$ 36,219	$ —	$ 18	$ 36,201
	$ 36,219	$ —	$ 18	$ 36,201

At March 31, 2019, none of these securities were scheduled to mature outside of one year. The Company did not realize any gains or losses on sales of available-for-sale securities for the three months ended March 31, 2019. As of March 31, 2019, none of the securities had been in a continuous material unrealized loss position longer than one year.

4. OTHER BALANCE SHEET ACCOUNTS

Accounts payable and accrued expenses consisted of the following (in thousands):

	March 31, 2019	December 31, 2018
Employee compensation	$ 548	$ 1,768
Post-termination benefit accrual	898	—
Clinical trial accruals	158	1,000
Accounts payable	877	412
Other accrued liabilities	40	371
Total accounts payable and accrued expenses	$ 2,521	$ 3,551

5. LONG-TERM INVESTMENTS

During the three months ended March 31, 2019, the Company sold its auction rate security classified as a long-term investment with a par value of $2.5 million. Included in investment and other income for the three months ended March 31, 2019 is a net gain of $0.4 million related to the sale.

6. FAIR VALUE MEASUREMENTS

The Company measures fair value as an exit price, representing the amount that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. As such, fair value is a market-based measurement that should be determined based on assumptions that market participants would use in pricing an asset or liability. Fair value measurements are based on a three-tier fair value hierarchy, which prioritizes the inputs used in measuring fair value as follows:

- Level 1: Observable inputs such as quoted prices in active markets;
- Level 2: Inputs, other than the quoted prices in active markets, that are observable either directly or indirectly; and
- Level 3: Unobservable inputs in which there is little or no market data, which require the reporting entity to develop its own assumptions.

Cash equivalents, marketable securities and long-term investments measured at fair value are classified in the table below in one of the three categories described above (in thousands):

	Fair Value Measurements			
March 31, 2019	**Level 1**	**Level 2**	**Level 3**	**Total**
Money market funds	$ 10,613	$ —	$ —	$ 10,613
U.S. treasuries	34,272	—	—	34,272
	$ 44,885	$ —	$ —	$ 44,885

	Fair Value Measurements			
December 31, 2018	**Level 1**	**Level 2**	**Level 3**	**Total**
Money market funds	$ 11,523	$ —	$ —	$ 11,523
U.S. treasuries	36,201	—	—	36,201
Auction rate securities	—	—	2,386	2,386
	$ 47,724	$ —	$ 2,386	$ 50,110

The Company's investments in U.S. treasury securities, certificates of deposit and money market funds are valued based on publicly available quoted market prices for identical securities as of March 31, 2019. The Company determines the fair value of corporate bonds and other government-sponsored enterprise related securities with the aid of valuations provided by third parties using proprietary valuation models and analytical tools. These valuation models and analytical tools use market pricing or similar instruments that are both objective and publicly available, including matrix pricing or reported trades, benchmark yields, broker/dealer quotes, issuer spreads, two-sided markets, benchmark securities, bids and/or offers. The Company validates the valuations received from its primary pricing vendors for its Level 2 securities by examining the inputs used in that vendor's pricing process and determines whether they are reasonable and observable. The Company also compares those valuations to recent reported trades for those securities. As of March 31, 2019 and December 31, 2018, the Company had no investments in Level 2 securities. The Company did not transfer any investments between level categories during the three months ended March 31, 2019.

Activity for assets measured at fair value using significant unobservable inputs (Level 3) is presented in the table below (in thousands):

Balance at December 31, 2018	$ 2,386
Change in fair market value included in other comprehensive loss	83
Sale of Level 3 security	(2,469)
Balance at March 31, 2019	$ —
Total gains or losses for the period included in net loss attributable to the change in unrealized gains or losses relating to assets still held at the reporting date	$ —

7. COMMITMENTS AND CONTINGENCIES

In the ordinary course of business, the Company may become a party to additional lawsuits involving various matters. The Company is unaware of any such lawsuits presently pending against it which, individually or in the aggregate, are deemed to be material to the Company's financial condition or results of operations.

The Company prosecutes its intellectual property vigorously to obtain the broadest valid scope for its patents. Due to uncertainty of the ultimate outcome of these matters, the impact on future operating results or the Company's financial condition is not subject to reasonable estimates.

8. ASTELLAS OUT-LICENSE AGREEMENTS

In July 2011, the Company entered into license agreements with Astellas Pharma Inc., or Astellas, related to the Company's CMV program. The license agreement was terminated in February 2018. Under the terms of the agreements, the Company was performing research and development services and manufacturing services which were being paid for by Astellas. During the three months ended March 31, 2018, the Company recognized $0.5 million of revenue related to these contract services.

9. FACILITY LEASE

The Company occupies approximately 17,000 square feet of research laboratory and office space at a single site in San Diego, California under a sublease with Genopis, Inc., or Genopis. In July 2018, the Company entered into an agreement with Genopis to sell the Company's idle manufacturing assets for $1.7 million. As part of the agreement, Genopis agreed to sublease 51,400 square feet of the Company's facility through the remaining term of the Company's lease, which expired on December 31, 2018. Genopis was also required to sign a long-term lease with the facility's landlord beginning on January 1, 2019. Genopis agreed to sublease 17,000 square feet of the facility (consisting of lab and office space) to the Company at no cost for the one-year period ending on December 31, 2019. The fair value of rent of the lab and office space that the Company is occupying at no cost was $0.6 million as of March 31, 2019 and is recorded in receivables and other assets.

10. STOCKHOLDERS' EQUITY

As of the date of this filing, the Company has on file a shelf registration statement that allows it to raise up to an additional $40.0 million from the sale of common stock, preferred stock, debt securities and/or warrants, subject to limitations on the amount of securities that it may sell under the registration statement in any 12-month period. Specific terms of any offering under a shelf registration statement and the securities involved would be established at the time of sale.

In November 2017, the Company sold 9,194,286 shares of its common stock in a public offering at a price of $1.75 per share, including an overallotment of 2,142,857 shares issued at a price of $1.75 per share, and pre-funded warrants to purchase 7,234,285 shares of common stock at a purchase price of $1.74 per share. The pre-funded warrants have an exercise price of $0.01 per share and may be exercised at any time. In March 2019, 993,211 warrants were exercised. As of March 31, 2019, warrants to purchase 6,241,074 shares of common stock were outstanding.

11. RELATED PARTY TRANSACTION

On April 4, 2017, the Company entered into a research collaboration agreement with AnGes. As of the date of the transaction, AnGes held 18.6% of the outstanding stock of the Company. Pursuant to the collaboration agreement, AnGes agreed to make a non-refundable payment to the Company of $750,000 and the Company agreed to conduct certain research activities related to a development program targeting chronic hepatitis B. An amendment to the agreement was executed in September 2018 that added an additional non-refundable payment from AnGes to the Company of $145,000. The HBV program was cancelled in 2019. As of March 31, 2019, the Company had recognized the full $895,000 as contract revenue.

12. RESTRUCTURING COSTS

In February 2019, the Company made the decision to discontinue the Phase 2 clinical trial of VL-2397. As a result, the Company restructured its operations to conserve capital and recorded a restructuring charge of $1.5 million during the three months ended March 31, 2019.

In January 2018, the Company and Astellas announced that ASP0113 did not meet its primary endpoint in a Phase 3 clinical study in CMV end organ disease, after which Astellas informed the Company that it was terminating further development. As a result, the Company restructured its operations to conserve capital, which included a staff reduction of 40 employees and the write-off of certain intangible assets. The Company recorded charges for one-time employee termination benefits of $1.1 million and for intangible asset impairments of $0.3 million during the three months ended March 31, 2018. Overhead costs associated with the former manufacturing facility of 0.2 million were recognized as general and administrative expense during the three months ended March 31, 2018.

The following table summarizes the restructuring charges (in thousands) recorded for the three months ended March 31, 2019 and 2018:

2019	Employee Termination Benefits	Asset Impairments	Total
Research and development	$ 1,491	$ —	$ 1,491
General and administrative	26	—	26
	$ 1,517	$ —	$ 1,517

2018	Employee Termination Benefits	Asset Impairments	Total
Research and development	$ 272	$ 267	$ 539
Manufacturing and production	735	—	735
General and administrative	117	—	117
	$ 1,124	$ 267	$ 1,391

The following table sets forth the accrual activity for employee termination benefits for the three months ended March 31, 2019 (in thousands).

Balance at December 31, 2018	$ —
Accruals	1,517
Payments	(619)
Balance at March 31, 2019	$ 898

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

This Quarterly Report on Form 10-Q, or Report, contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, or the Securities Act, and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act, including statements regarding our business, our financial position, the research and development of biopharmaceutical products, the funding of our research and development efforts, and other statements describing our goals, expectations, intentions or beliefs. These statements often contain words such as "may," "will," "expect," "anticipate," "intend," "plan," "believe," "estimate" or other words indicating future results, though not all forward-looking statements necessarily contain these identifying words. Such statements reflect our current views and assumptions and are subject to risks and uncertainties, particularly those inherent in the process of developing and commercializing biopharmaceutical products. Actual results could differ materially from those projected herein. Factors that could cause or contribute to such differences include, but are not limited to, those discussed in our Annual Report on Form 10-K for the year ended December 31, 2018, and in our subsequent filings with the SEC, and those identified in Part II, Item 1A of this Report under the caption "Risk Factors". As a result, you are cautioned not to rely on these forward-looking statements. We disclaim any duty to update any forward-looking statement to reflect events or circumstances that occur after the date on which such statement is made.

Overview

Until recently, we were focused on developing our novel antifungal VL-2397, for the treatment of patients with invasive aspergillosis. VL-2397 was being evaluated in a multicenter, open label randomized Phase 2 clinical study, designed to compare the efficacy and safety of VL-2397 to standard treatment for invasive aspergillosis in acute leukemia patients and recipients of allogeneic hematopoietic cell transplant (HCT). In February 2019, we decided to discontinue the Phase 2 clinical trial of VL-2397 in order to conserve our cash resources while we pursue our strategic alternative review process.

Our board of directors is conducting a review of strategic alternatives, including, but are not limited to, merger or acquisition transactions, issuing or transferring shares of our common stock, or the license, purchase or sale of specific assets, in addition to other potential actions aimed at maximizing stockholder value. There can be no assurance that the review of strategic alternatives will result in the identification or consummation of any transaction or that our board of directors will determine that continuing our current business operations is in the best interests of our stockholders.

Research, Development and Manufacturing Programs

To date, we have not received revenues from the sale of independently developed pharmaceutical products and have received minimal revenues from the sale of commercially marketed products by our licensees. We have previously earned revenues by performing services under research and development and manufacturing contracts, from grants, and from licensing access to our proprietary technologies. Revenues by source were as follows (in millions):

	Three Months Ended March 31,	
Source	**2019**	**2018**
Astellas supply and services contract	—	$ 0.5
Other contracts, licenses and royalties	—	0.2
Total revenues	$ —	$ 0.7

In February 2019, we made the decision to discontinue the Phase 2 clinical trial of VL-2397 and, as a result, we restructured our operations to conserve capital. In January 2018, we and Astellas announced that ASP0113 did not meet its primary endpoint in a Phase 3 clinical study in CMV end organ disease, after which Astellas informed us that it was terminating further development.

Critical Accounting Policies and Estimates

The preparation and presentation of financial statements in accordance with accounting principles generally accepted in the United States requires that management make a number of assumptions and informed estimates that affect the reported amounts of assets, liabilities, revenues and expenses in our financial statements and accompanying notes. Management bases its estimates on historical information and assumptions believed to be reasonable. Although these estimates are based on management's best knowledge of current events and circumstances that may impact us in the future, they are inherently uncertain and actual results may differ materially from these estimates.

Our critical accounting policies are those that affect our financial statements materially and involve a significant level of judgment by management. Our critical accounting policies regarding revenue recognition are in the following areas: license and royalty agreements, manufacturing contracts, contract services and grant revenues. Our critical accounting policies also include recognition of research and development expenses and the valuation of long-lived and intangible assets.

We describe our significant accounting policies in Note 1 of the Notes to Financial Statements included in our Annual Report on Form 10-K for the year ended December 31, 2018. We discuss our critical accounting policies and estimates in the section titled "Management's Discussion and Analysis of Financial Condition and Results of Operations" in our Annual Report on Form 10-K for the year ended December 31, 2018.

Recent Accounting Pronouncements

For information on the recent accounting pronouncements which may impact our business, see Note 1 of the Notes to Financial Statements included in this Report.

Results of Operations

Three Months Ended March 31, 2019, Compared with Three Months Ended March 31, 2018

Total Revenues. Total revenues decreased to $0 for the three months ended March 31, 2019, from $0.7 million for the three months ended March 31, 2018. This decrease was primarily due to the termination of the ASP0113 program in January 2018.

Research and Development Expenses. Research and development expenses increased $0.2 million, or 5.9%, to $3.9 million for the three months ended March 31, 2019, from $3.7 million for the three months ended March 31, 2018. This increase was primarily due to a $1.5 million restructuring charge recognized during the three months ended March 31, 2019, partially offset by a decrease in employee-related expenses and patent write-offs.

Manufacturing and Production Expenses. Manufacturing and production expenses decreased to $0 for the three months ended March 31, 2019, from $1.4 million for the three months ended March 31, 2018. This decrease was due to the termination of the ASP0113 program in January 2018. The termination resulted in a decrease in manufacturing activity and a headcount reduction. In February 2018, we discontinued all manufacturing and production activities and, as a result, we do not expect to incur any future manufacturing or production expenses.

General and Administrative Expenses. General and administrative expenses decreased $0.7 million, or 35.0% to $1.4 million for the three months ended March 31, 2019, from $2.1 million for the three months ended March 31, 2018. This decrease was primarily due to a decrease in wages and benefits as a result of lower headcount and lower facility costs.

Investment and Other Income, Net. Investment and other income, net, increased $0.5 million to $0.7 million for the three months ended March 31, 2019, from $0.2 million for the three months ended March 31, 2018 primarily due to the reversal of previously recognized losses on long-term investments sold in March 2019.

Liquidity and Capital Resources

Since our inception, we have financed our operations primarily through private placements and public offerings of equity securities, and revenues from our operations. Cash, cash equivalents, marketable securities and long-term investments totaled $45.5 million at March 31, 2019, compared with $50.5 million at December 31, 2018. The decrease in our cash, cash equivalents and marketable securities for the three months ended March 31, 2019, was primarily the result of the use of cash to fund our operations.

Net cash used in operating activities was $5.2 million and $4.6 million for the three months ended March 31, 2019 and 2018, respectively. The increase in net cash used in operating activities for the three months ended March 31, 2019, compared with the prior year period, was primarily the result of a decrease in cash receipts from Astellas due to the termination of the ASP0113 program.

Net cash provided by (used in) investing activities was $4.5 million and $(10.2) million for the three months ended March 31, 2019 and 2018, respectively. The increase in net cash provided by investing activities for the three months ended March 31, 2019, compared with the prior year period, was primarily the result of a decrease of $12.2 million in net purchases of marketable securities and an increase in proceeds received from the sale of long-term investments.

Net cash provided by financing activities was $11,000 and $1,000 for the three months ended March 31, 2019 and 2018, respectively.

A discussion of our exposure to auction rate securities is included in Part I, Item 3 of this Report under the heading "Quantitative and Qualitative Disclosures About Market Risk."

We currently have on file an effective shelf registration statement that allows us to raise up to $40.0 million from the sale of common stock, preferred stock, debt securities and/or warrants, subject to limitations on the amount of securities that we may sell under the registration statement in any 12-month period.

Despite our current shelf registration statement, additional financing through these or other means may not be available on favorable terms or at all. If additional financing is not available, we anticipate that our available cash and existing sources of funding will be adequate to satisfy our cash needs at least through December 31, 2019.

Contractual Obligations

Under the indemnification agreements with our officers and directors, we have agreed to indemnify those individuals for any expenses and liabilities in the event of a threatened, pending or actual investigation, lawsuit, or criminal or investigative proceeding.

We have an employment agreement that contains severance arrangements with our chief executive officer, or CEO, and severance agreements with three of our other employees. Under the agreement with our CEO, we are obligated to pay severance if we terminate the CEO's employment without "cause," or if the CEO resigns for "good reason," as defined in the agreement, within the periods set forth therein. The severance for the CEO consists of continued base salary payments at the then-current rate, including the payment of health insurance premiums for 18 months, plus a payment equal to one and one-half times the CEO's cash bonus in the previous year. In addition, the CEO receives accelerated vesting on all his unvested stock awards as if he had remained employed by us for 18 months from the date of termination. In the event that the termination occurs within 24 months of a "change in control," as defined in the agreement, the severance for the CEO consists of a lump sum payment equal to 24 months of base salary at the then-current rate, the payment of health insurance premiums for 18 months, plus a payment equal to one and one-half times the CEO's cash bonus in the previous year. In addition, all outstanding unvested stock awards will vest immediately. Under the agreements with our other three executives, we are obligated to pay severance if we terminate the executive's employment without "cause," or if the executive resigns for "good reason," as defined in the agreements, within the periods set forth therein. The severance for two of these executives consists of a lump-sum payment equal to 12 months of base salary at the then-current rate, including the payment of health insurance premiums for 12 months, plus a payment equal to the executive's cash bonus in the previous year. In addition, the executive receives accelerated vesting on all his unvested stock awards as if he had remained employed by us for 12 months from the date of termination. In the event that the termination occurs within 12 months of a "change in control," as defined in the agreements, the severance consists of a lump sum payment equal to 18 months of base salary at the then-current rate, the payment of health insurance premiums for 12 months, plus a payment equal to the executive's cash bonus in the previous year. In addition, all outstanding unvested stock awards will vest immediately. The severance for the remaining executive consists of a lump-sum payment equal to six months of base salary at the then-current rate, including the payment of health insurance premiums for six months, plus a bonus payment of $75,000. The maximum payments due under these agreements would have been $2.9 million if each such employee was terminated at March 31, 2019.

Off-Balance Sheet Arrangements

As of March 31, 2019, we did not have any off-balance sheet arrangements.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

We are subject to interest rate risk. Our investment portfolio is maintained in accordance with our investment policy which defines allowable investments, specifies credit quality standards and limits the credit exposure of any single issuer. Our investment portfolio consists of cash equivalents and marketable securities. The average maturity of our investments is approximately five months. Our investments are classified as available-for-sale securities.

To assess our interest rate risk, we performed a sensitivity analysis projecting an ending fair value of our cash equivalents and marketable securities using the following assumptions: a five-month average maturity and a 150-basis-point increase in interest rates. This pro forma fair value would have been $0.3 million lower than the reported fair value of our investments at March 31, 2019.

Our investment securities consist of government agency securities.

ITEM 4. CONTROLS AND PROCEDURES

Conclusion Regarding the Effectiveness of Disclosure Controls and Procedures

Under the supervision and with the participation of our management, including our principal executive and financial officer, we conducted an evaluation of the design and operation of our disclosure controls and procedures, as such term is defined in Rule 13a-15(e) promulgated under the Exchange Act as of the end of the period covered by this Report. Based on this evaluation, our principal executive officer and principal financial officer concluded that our disclosure controls and procedures were effective and were operating at a reasonable assurance level as of March 31, 2019.

Changes in Internal Control over Financial Reporting

Management has determined that there were no significant changes in our internal control over financial reporting that occurred during the three months ended March 31, 2019, that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

PART II. OTHER INFORMATION

ITEM 1A. RISK FACTORS

There have been no material changes to the risk factors included in "Item 1A. Risk Factors" in our Annual Report on Form 10-K for the year ended December 31, 2018 as filed with the Securities and Exchange Commission on March 1, 2019, as amended.

ITEM 6. EXHIBITS

Exhibit Number	Description of Document
3.1(1)	Restated Certificate of Incorporation. (P)
3.2(2)	Amended and Restated Bylaws.
3.3(3)	Certificate of Amendment to Restated Certificate of Incorporation.
3.4(4)	Certificate of Amendment to Restated Certificate of Incorporation.
3.5(5)	Certificate of Amendment to Restated Certificate of Incorporation.
3.6(6)	Certificate of Amendment to Restated Certificate of Incorporation.
4.1(1)	Specimen Common Stock Certificate. (P)
10.1(7)	Amended and Restated Stock Incentive Plan of Vical Incorporated.
31.1	Certification of Vijay B. Samant, Chief Executive Officer, pursuant to Rules 13a-14(a) and 15d-14(a) of the Securities Exchange Act of 1934, as amended, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2	Certification of Anthony A. Ramos, Chief Financial Officer, pursuant to Rules 13a-14(a) and 15d-14(a) of the Securities Exchange Act of 1934, as amended, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1	Certification of Vijay B. Samant, Chief Executive Officer, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.2	Certification of Anthony A. Ramos, Chief Financial Officer, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101.INS	XBRL Instance Document.
101.SCH	XBRL Taxonomy Extension Schema Document.
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document.
101.DEF	XBRL Taxonomy Extension Definition Linkbase.
101.LAB	XBRL Taxonomy Extension Label Linkbase Document.
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document.

(P) Paper exhibit

(1) Incorporated by reference to the exhibit of the same number filed with the Company's Registration Statement on Form S-3 (No. 333-95812) filed on August 15, 1995.

(2) Incorporated by reference to the exhibit of the same number filed with the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2010 (No. 000-21088) filed on August 6, 2010.

(3) Incorporated by reference to exhibit 3.1 to the Company's Current Report on Form 8-K filed on June 1, 2017.

(4) Incorporated by reference to exhibit 3.1 to the Company's Current Report on Form 8-K filed on May 25, 2016.

(5) Incorporated by reference to exhibit 3.3 filed with the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2010 (No. 000-21088) filed on August 6, 2010.

(6) Incorporated by reference to exhibit 4.2 filed with the Company's Registration Statement on Form S-8 (No. 333-135266) filed on June 23, 2006.

(7) Incorporated by reference to exhibit 99.1 filed with the Company's Current Report on Form 8-K filed on June 7, 2018.

SIGNATURE

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.

Vical Incorporated

Date: May 2, 2019

By: /s/ ANTHONY A. RAMOS
Anthony A. Ramos
Vice President, Chief Financial Officer (on behalf of the registrant and as the registrant's Principal Financial and Accounting Officer)

Exhibit 31.1

CERTIFICATION

I, Vijay B. Samant, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Vical Incorporated;

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 fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

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

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

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

Date: May 2, 2019

By: /s/ VIJAY B. SAMANT
Vijay B. Samant
Chief Executive Officer

Exhibit 31.2

CERTIFICATION

I, Anthony A. Ramos, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Vical Incorporated;

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 fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

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

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

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

Date: May 2, 2019

By: /s/ ANTHONY A. RAMOS
Anthony A. Ramos
Chief Financial Officer

Exhibit 32.1

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

Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (18 U.S.C. § 1350, as adopted), Vijay B. Samant, the Chief Executive Officer of Vical Incorporated (the "Company"), hereby certifies that, to the best of his knowledge:

1. The Company's Quarterly Report on Form 10-Q for the period ended March 31, 2019, to which this Certification is attached as Exhibit 32.1 (the "Periodic Report"), fully complies with the requirements of Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934, as amended; and
2. The information contained in the Periodic Report fairly presents, in all material respects, the financial condition of the Company at the end of the period covered by the Periodic Report and results of operations of the Company for the period covered by the Periodic Report.

Dated: May 2, 2019

/s/ VIJAY B. SAMANT
Vijay B. Samant
Chief Executive Officer

THIS CERTIFICATION "ACCOMPANIES" THE FORM 10-Q TO WHICH IT RELATES, IS NOT DEEMED FILED WITH THE SECURITIES AND EXCHANGE COMMISSION AND IS NOT TO BE INCORPORATED BY REFERENCE INTO ANY FILING OF THE COMPANY UNDER THE SECURITIES ACT OF 1933, AS AMENDED, OR THE SECURITIES EXCHANGE ACT OF 1934, AS AMENDED (WHETHER MADE BEFORE OR AFTER THE DATE OF THE FORM 10-Q), IRRESPECTIVE OF ANY GENERAL INCORPORATION LANGUAGE CONTAINED IN SUCH FILING. A SIGNED ORIGINAL OF THIS CERTIFICATION HAS BEEN PROVIDED TO THE COMPANY AND WILL BE RETAINED BY THE COMPANY AND FURNISHED TO THE SECURITIES AND EXCHANGE COMMISSION OR ITS STAFF UPON REQUEST.

Exhibit 32.2

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

Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (18 U.S.C. § 1350, as adopted), Anthony A. Ramos, the Chief Financial Officer of Vical Incorporated (the "Company"), hereby certifies that, to the best of his knowledge:

1. The Company's Quarterly Report on Form 10-Q for the period ended March 31, 2019, to which this Certification is attached as Exhibit 32.2 (the "Periodic Report"), fully complies with the requirements of Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934, as amended; and
2. The information contained in the Periodic Report fairly presents, in all material respects, the financial condition of the Company at the end of the period covered by the Periodic Report and results of operations of the Company for the period covered by the Periodic Report.

Dated: May 2, 2019

/s/ ANTHONY A. RAMOS
Anthony A. Ramos
Chief Financial Officer

THIS CERTIFICATION "ACCOMPANIES" THE FORM 10-Q TO WHICH IT RELATES, IS NOT DEEMED FILED WITH THE SECURITIES AND EXCHANGE COMMISSION AND IS NOT TO BE INCORPORATED BY REFERENCE INTO ANY FILING OF THE COMPANY UNDER THE SECURITIES ACT OF 1933, AS AMENDED, OR THE SECURITIES EXCHANGE ACT OF 1934, AS AMENDED (WHETHER MADE BEFORE OR AFTER THE DATE OF THE FORM 10-Q), IRRESPECTIVE OF ANY GENERAL INCORPORATION LANGUAGE CONTAINED IN SUCH FILING. A SIGNED ORIGINAL OF THIS CERTIFICATION HAS BEEN PROVIDED TO THE COMPANY AND WILL BE RETAINED BY THE COMPANY AND FURNISHED TO THE SECURITIES AND EXCHANGE COMMISSION OR ITS STAFF UPON REQUEST.