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

Form 10-Q

(Mark One)

x **QUARTERLY REPORT UNDER SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
For the quarterly period ended March 31, 2020

o **TRANSITION REPORT UNDER SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the transition period from to

COMMISSION FILE NUMBER 001-35558

TROVAGENE, INC.
(Exact Name of registrant as specified in its charter)

Delaware	**27-2004382**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
11055 Flintkote Avenue, San Diego, California	**92121**
(Address of principal executive offices)	(Zip Code)

(858) 952-7570
(Registrant's telephone number, including area code)

Title of each class:	Trading Symbol(s)	Name of each exchange on which registered:
Common Stock	TROV	Nasdaq Capital Market

Indicate by check mark whether the issuer (1) filed all reports required to be filed by Section 13 or 15(d) of the Exchange Act 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 x No o

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

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, smaller reporting company, or an emerging growth company. See 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 o	Accelerated filer o	Non-accelerated filer x	Smaller reporting company x	Emerging growth company o

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. o

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

As of April 30, 2020, the issuer had 12,303,274 shares of Common Stock issued and outstanding.

TROVAGENE, INC.

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PART I. FINANCIAL INFORMATION

ITEM 1. FINANCIAL STATEMENTS

TROVAGENE, INC.
CONDENSED BALANCE SHEETS
(Unaudited)

	March 31, 2020	December 31, 2019
Assets		
Current assets:		
Cash and cash equivalents	$ 9,277,025	$ 10,195,292
Accounts receivable and unbilled receivable	106,432	203,480
Prepaid expenses and other current assets	899,451	954,957
Total current assets	10,282,908	11,353,729
Property and equipment, net	758,503	877,823
Operating lease right-of-use assets	617,622	697,418
Other assets	156,370	157,576
Total Assets	$ 11,815,403	$ 13,086,546
Liabilities and Stockholders' Equity		
Current liabilities:		
Accounts payable	$ 598,985	$ 656,304
Accrued expenses	3,411,723	3,260,061
Operating lease liabilities	870,592	865,379
Total current liabilities	4,881,300	4,781,744
Derivative financial instruments—warrants	2,020	4,127
Operating lease liabilities, net of current portion	649,621	860,963
Other liabilities	139,044	128,368
Total Liabilities	5,671,985	5,775,202
Commitments and contingencies (Note 8)		
Stockholders' equity		
Preferred stock, $0.001 par value, 20,000,000 shares authorized; 277,100 designated as Series A Convertible Preferred Stock; 60,600 shares outstanding at March 31, 2020 and December 31, 2019 with liquidation preference of $606,000 at March 31, 2020 and December 31, 2019; 200,000 designated as Series C Convertible Preferred Stock; 0 shares outstanding at March 31, 2020 and December 31, 2019	60	60
Common stock, $0.0001 par value, 150,000,000 shares authorized; 11,010,587 and 8,593,633 shares issued and outstanding at March 31, 2020 and December 31, 2019, respectively	8,554	8,312
Additional paid-in capital	219,805,965	217,172,528
Service receivables	(678,656)	(971,673)
Accumulated deficit	(212,992,505)	(208,897,883)
Total stockholders' equity	6,143,418	7,311,344
Total liabilities and stockholders' equity	$ 11,815,403	$ 13,086,546

See accompanying notes to the unaudited condensed financial statements.

TROVAGENE, INC.
CONDENSED STATEMENTS OF OPERATIONS
(Unaudited)

	Three Months Ended March 31,	
	2020	**2019**
Revenues:		
Royalties	$ 67,704	$ 62,021
Total revenues	67,704	62,021
Costs and expenses:		
Research and development	2,705,691	2,648,599
Selling, general and administrative	1,486,019	1,375,185
Total operating expenses	4,191,710	4,023,784
Loss from operations	(4,124,006)	(3,961,763)
Interest income	35,823	64,743
Gain (loss) from change in fair value of derivative financial instruments—warrants	2,107	(9,761)
Other income (expense), net	(2,486)	2,010
Net loss	(4,088,562)	(3,904,771)
Preferred stock dividend payable on Series A Convertible Preferred Stock	(6,060)	(6,060)
Deemed dividend recognized on beneficial conversion features of Series C Convertible Preferred Stock issuance	—	(268,269)
Net loss attributable to common stockholders	$ (4,094,622)	$ (4,179,100)
Net loss per common share — basic and diluted	$ (0.41)	$ (1.02)
Weighted-average shares outstanding — basic and diluted	9,910,306	4,086,561

See accompanying notes to the unaudited condensed financial statements.

TROVAGENE, INC.
CONDENSED STATEMENTS OF STOCKHOLDERS' EQUITY
(Unaudited)

	Preferred Stock Shares	Preferred Stock Amount	Common Stock Shares	Common Stock Amount	Additional Paid-In Capital	Service Receivable	Accumulated Deficit	Total Stockholders' Equity
Balance, January 1, 2020	60,600	$ 60	8,593,633	$ 8,312	$217,172,528	$ (971,673)	$(208,897,883)	$7,311,344
Stock-based compensation	—	—	—		177,309	—	—	177,309
Sale of common stock and warrants	—	—	800,000	80	999,921	—	—	1,000,001
Issuance of common stock upon exercise of warrants	—	—	1,610,144	161	1,456,208	—	—	1,456,369
Issuance of common stock upon vesting of restricted stock units	—	—	6,810	1	(1)	—	—	—
Preferred stock dividend	—	—	—	—	—	—	(6,060)	(6,060)
Release of clinical trial funding commitment	—	—	—	—	—	293,017	—	293,017
Net loss	—	—	—	—	—	—	(4,088,562)	(4,088,562)
Balance, March 31, 2020	60,600	$ 60	11,010,587	$ 8,554	$219,805,965	$ (678,656)	$(212,992,505)	$6,143,418

	Preferred Stock Shares	Preferred Stock Amount	Common Stock Shares	Common Stock Amount	Additional Paid-In Capital	Service Receivable	Accumulated Deficit	Total Stockholders' Equity
Balance, January 1, 2019	60,600	$ 60	3,831,879	$ 7,742	$202,267,605	$ —	$(192,191,215)	$10,084,192
Stock-based compensation	—	—	—	—	200,067	—	—	200,067
Issuance of common stock, preferred stock and warrants for clinical trial funding commitment, net of expenses and discount of $40,000 and $235,640, respectively	200,000	200	183,334	110	1,634,690	(1,675,000)	—	(40,000)
Deemed dividend recognized on beneficial conversion features of Series C Convertible Preferred Stock issuance	—	—	—	—	268,269	—	(268,269)	—
Issuance of common stock upon exercise of warrants	—	—	497,313	50	3,282,216	—	—	3,282,266
Issuance of common stock upon vesting of restricted stock units	—	—	6,362	4	(4)	—	—	—
Preferred stock dividend payable on Series A Convertible Preferred Stock	—	—	—	—	—	—	(6,060)	(6,060)
Issuance of common stock for share rounding as a result of reverse stock split	—	—	6,466	—	—	—	—	—
Release of clinical trial funding commitment	—	—	—	—	—	70,487	—	70,487
Net loss	—	—	—	—	—	—	(3,904,771)	(3,904,771)
Balance, March 31, 2019	260,600	$ 260	4,525,354	$ 7,906	$207,652,843	$(1,604,513)	$(196,370,315)	$ 9,686,181

See accompanying notes to the unaudited condensed financial statements.

TROVAGENE, INC.
CONDENSED STATEMENTS OF CASH FLOWS
(Unaudited)

	Three Months Ended March 31,	
	2020	2019
Operating activities		
Net loss	$ (4,088,562)	$ (3,904,771)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	119,320	126,781
Stock-based compensation expense	177,309	200,067
Change in fair value of derivative financial instruments—warrants	(2,107)	9,761
Release of clinical trial funding commitment	293,017	70,487
Changes in operating assets and liabilities:		
Other assets	1,206	15,725
Accounts receivable and unbilled receivable	97,048	52,079
Prepaid expenses	55,506	179,691
Operating lease right-of-use assets	79,796	73,188
Accounts payable and accrued expenses	88,283	3,635
Operating lease liabilities	(206,129)	(186,689)
Other liabilities	10,676	—
Net cash used in operating activities	(3,374,637)	(3,360,046)
Investing activities:		
Capital expenditures	—	(5,274)
Net cash used in investing activities	—	(5,274)
Financing activities:		
Proceeds from sales of common stock and warrants	1,000,001	—
Costs related to the clinical trial funding commitment	—	(40,000)
Proceeds from exercise of warrants	1,456,369	3,282,266
Net cash provided by financing activities	2,456,370	3,242,266
Net change in cash and cash equivalents	(918,267)	(123,054)
Cash and cash equivalents—Beginning of period	10,195,292	11,453,133
Cash and cash equivalents—End of period	$ 9,277,025	$ 11,330,079
Supplementary disclosure of cash flow activity:		
Cash paid for taxes	$ 800	$ 800
Supplemental disclosure of non-cash investing and financing activities:		
Preferred stock dividend payable on Series A Convertible Preferred Stock	$ 6,060	$ 6,060
Deemed dividend recognized for beneficial conversion features of Series C Convertible Preferred Stock issuance	$ —	$ 268,269
Common stock, Series C Convertible Preferred Stock and warrants issued in connection with clinical trial funding commitment, net of discount of $235,640	$ —	$ 1,675,000

See accompanying notes to the unaudited condensed financial statements.

TROVAGENE, INC.
NOTES TO CONDENSED FINANCIAL STATEMENTS
(Unaudited)

1. Organization and Basis of Presentation

Business Organization and Overview

Trovagene, Inc. ("Trovagene" or the "Company") headquartered in San Diego, California, is a clinical-stage biotechnology company with the singular mission of developing new treatment options for cancer patients in indications with the greatest medical need, including KRAS-mutated metastatic colorectal cancer, Zytiga®-resistant metastatic castration-resistant prostate cancer and relapsed or refractory acute myeloid leukemia. Our goal is to overcome resistance, improve response to treatment and increase overall survival.

Trovagene's intellectual property and proprietary technology enables the Company to analyze circulating tumor DNA ("ctDNA") and clinically actionable markers. Unique to the Company's clinical development plan, is the integration of predictive clinical biomarkers to assess patient response to treatment.

Basis of Presentation

The accompanying unaudited interim condensed financial statements of Trovagene have been prepared in accordance with accounting principles generally accepted in the United States of America ("GAAP") and the rules and regulations of the Securities and Exchange Commission ("SEC") related to a quarterly report on Form 10-Q. Certain information and note disclosures normally included in annual financial statements prepared in accordance with GAAP have been condensed or omitted pursuant to those rules and regulations. The unaudited interim condensed financial statements reflect all adjustments consisting of normal recurring adjustments which, in the opinion of management, are necessary for a fair statement of the Company's financial position and the results of its operations and cash flows for the periods presented. The unaudited condensed balance sheet at December 31, 2019 has been derived from the audited financial statements at that date but does not include all of the information and disclosures required by GAAP for annual financial statements. The operating results presented in these unaudited interim condensed financial statements are not necessarily indicative of the results that may be expected for any future periods. These unaudited interim condensed financial statements should be read in conjunction with the audited financial statements and the notes thereto for the year ended December 31, 2019 included in the Company's annual report on Form 10-K filed with the SEC on February 27, 2020.

Liquidity

Trovagene's condensed financial statements as of March 31, 2020 have been prepared under the assumption that Trovagene will continue as a going concern, which assumes that the Company will realize its assets and satisfy its liabilities in the normal course of business. The accompanying financial statements do not include any adjustments to reflect the possible future effects on the recoverability and classification of assets or the amounts and classifications of liabilities that may result from the outcome of the uncertainty concerning the Company's ability to continue as a going concern.

The Company has incurred net losses since its inception and has negative operating cash flows. Considering the Company's current cash resources, and service receivable related to the clinical trial funding commitment, management projects the Company's existing resources will be sufficient to fund the Company's planned operations into the fourth quarter of 2020. Based on its current business plan and assumptions, the Company expects to continue to incur significant losses and require significant additional capital to further advance its clinical trial programs and support its other operations. The Company has based its cash sufficiency estimates on its current business plan and its assumptions that may prove to be wrong. The Company could utilize its available capital resources sooner than it currently expects, and it could need additional funding to sustain its operations even sooner than currently anticipated. These circumstances raise substantial doubt about the Company's ability to continue as a going concern for at least one year from the issuance of these financial statements. For the foreseeable future, the Company's ability to continue its operations is dependent upon its ability to obtain additional capital.

The Company cannot be certain that additional funding will be available on acceptable terms, or at all. To the extent that the Company can raise additional funds by issuing equity securities, the Company's stockholders may experience significant dilution.

The economic effects of COVID-19 could also have an adverse effect on the Company's ability to raise additional capital. See Note 10 to the condensed financial statements for further information.

If the Company is unable to raise additional capital when required or on acceptable terms, it may have to significantly delay, scale back or discontinue the development and/or commercialization of one or more of its product candidates, all of which would have a material adverse impact on the Company's operations. The Company may also be required to:

- Seek collaborators for product candidates at an earlier stage than otherwise would be desirable and on terms that are less favorable than might otherwise be available; and
- Relinquish licenses or otherwise dispose of rights to technologies, product candidates or products that the Company would otherwise seek to develop or commercialize themselves, on unfavorable terms.

The Company is evaluating the following options to raise additional capital, increase revenue, as well as reduce costs, in an effort to strengthen its liquidity position:

- Raising capital through public and private equity offerings;
- Introducing operation and business development initiatives to bring in new revenue streams;
- Reducing operating costs by identifying internal synergies; and
- Engaging in strategic partnerships.

Between April 1, 2020 and April 30, 2020, the Company has received approximately $1,085,000 from the sale of common stock, pre-funded warrants and warrants. In addition, on April 15, 2020 the Company has received a loan of $305,000 through the United States Small Business Administration Payroll Protection Program (see Note 11 for further details.)

2. Summary of Significant Accounting Policies

During the three months ended March 31, 2020, there have been no changes to the Company's significant accounting policies as described in its Annual Report on Form 10-K for the fiscal year ended December 31, 2019, except as described below.

Net Loss Per Share

Basic and diluted net loss per common share is determined by dividing net loss applicable to common stockholders by the weighted-average common shares outstanding during the period. Preferred dividends are included in net loss attributable to common stockholders in the computation of basic and diluted earnings per share. Shares used in calculating diluted net loss per common share exclude as anti-dilutive the following share equivalents:

The following table sets forth the computation of basic and diluted earnings per share:

	Three Months Ended March 31,	
	2020	2019
Numerator:		
Net loss attributable to common shareholders	$ (4,094,622)	$ (4,179,100)
Net loss used for basic and diluted loss per share	$ (4,094,622)	$ (4,179,100)
Denominator:		
Weighted-average shares used to compute basic and diluted net loss per share	9,910,306	4,086,561
Net loss per share attributable to common stockholders:		
Basic and diluted	$ (0.41)	$ (1.02)

The following table sets forth the outstanding potentially dilutive securities that have been excluded in the calculation of diluted net loss per share because their effect was anti-dilutive:

	March 31,	
	2020	2019
Options to purchase Common Stock	975,233	80,345
Warrants to purchase Common Stock	10,516,377	3,302,093
Restricted Stock Units	4,491	18,620
Series A Convertible Preferred Stock	877	877
Series C Convertible Preferred Stock	—	333,334
	11,496,978	3,735,269

Recently Adopted Accounting Pronouncement

In August 2018, the FASB issued ASU No. 2018-13 ("ASU 2018-13"), *Changes to the Disclosure Requirements for Fair Value Measurement*. This ASU eliminates, adds and modifies certain disclosure requirements for fair value measurements as part of its disclosure framework project. The standard is effective for all entities for financial statements issued for fiscal years beginning after December 15, 2019, and interim periods within those fiscal years. The Company has prospectively adopted ASU 2018-13 as of January 1, 2020 for periods presented after adoption. The adoption of ASU 2018-13 did not have a material impact on the Company's financial statements.

3. Fair Value Measurements

The following table presents the Company’s assets and liabilities that are measured and recognized at fair value on a recurring basis classified under the appropriate level of the fair value hierarchy as of March 31, 2020 and December 31, 2019:

	Fair Value Measurements at March 31, 2020			
	Quoted Prices in Active Markets for Identical Assets and Liabilities (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Total
Assets:				
Money market fund (1)	$ 9,209,577	$ —	$ —	$ 9,209,577
Total Assets	$ 9,209,577	$ —	$ —	$ 9,209,577
Liabilities:				
Derivative financial instruments—warrants (2)	$ —	$ —	$ 2,020	$ 2,020
Total Liabilities	$ —	$ —	$ 2,020	$ 2,020

	Fair Value Measurements at December 31, 2019			
	Quoted Prices in Active Markets for Identical Assets and Liabilities (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Total
Assets:				
Money market fund (1)	$ 10,131,240	$ —	$ —	$ 10,131,240
Total Assets	$ 10,131,240	$ —	$ —	$ 10,131,240
Liabilities:				
Derivative financial instruments—warrants (2)	$ —	$ —	$ 4,127	$ 4,127
Total Liabilities	$ —	$ —	$ 4,127	$ 4,127

(1) Included as a component of cash and cash equivalents on the accompanying condensed balance sheets.

(2) A financial instrument's level within the fair value hierarchy is based on the lowest level of any input that is significant to the fair value measurement. At each reporting period, all assets and liabilities for which the fair value measurement is based on significant unobservable inputs or instruments that trade infrequently and therefore have little or no price transparency are classified as Level 3. See Note 6 to the condensed financial statements for further information.

4. Property and Equipment

Property and equipment consist of the following:

	As of March 31, 2020	As of December 31, 2019
Furniture and office equipment	$ 775,030	$ 775,030
Leasehold improvements	1,962,230	1,962,230
Laboratory equipment	744,856	744,856
	3,482,116	3,482,116
Less—accumulated depreciation and amortization	(2,723,613)	(2,604,293)
Property and equipment, net	$ 758,503	$ 877,823

5. Leases

As a lessee, the Company's current leases include its master facility lease and immaterial equipment leases, all of which are considered operating leases.

The Company (as a sublessor) also subleases portions of its facility to third parties under two separate subleases. All of these subleases have been determined to be operating leases and are accounted for separately from the head lease.

Master Facility Lease

The Company leases a building in San Diego under an operating lease that expires on December 31, 2021. The lease currently requires fixed monthly rent payments of approximately $78,000, with 3% annual escalation. The lease also contains one five-year renewal option with minimum monthly rent equal to the then-current fair market value, subject to a 3% annual increase. As the Company is not reasonably certain to exercise this option, it has not been included in the calculation of the lease liability or right-of-use asset related to this lease.

Facility Subleases

As a result of corporate restructurings in previous years, the Company vacated a portion of its facility and has subleased the space to third parties under two separate sublease agreements, which both expire December 31, 2021. An additional sublease expired on October 31, 2019 and was not renewed. The Company recorded a cease-use loss liability and expense in 2018 pursuant to ASC 420, *Exit or Disposal Cost Obligations*, representing the total expected shortfall in sublease income for two of the subleases as compared to its required payments for those spaces under the remainder of the master lease term. This liability was being amortized over the remaining lease term until the adoption of ASC 842, whereupon the remaining cease-use loss liability of approximately $487,000 was eliminated and treated as a reduction to the beginning ROU asset value for the master lease as of January 1, 2019. Income will continue to be recognized on a straight-line basis over the term of the sublease.

The components of lease expense were as follows:

	Three Months Ended March 31, 2020	Three Months Ended March 31, 2019
Operating lease cost	$ 106,744	$ 113,592
Operating sublease income	(72,793)	(99,937)
Net operating lease cost	$ 33,951	$ 13,655

Supplemental balance sheet information related to leases was as follows:

	March 31, 2020	December 31, 2019
Operating lease ROU assets	$ 617,622	$ 697,418
Current operating lease liabilities	$ 870,592	$ 865,379
Non-current operating lease liabilities	649,621	860,963
Total operating lease liabilities	$ 1,520,213	$ 1,726,342
Weighted-average remaining lease term–operating leases	1.8 years	2.0 years
Weighted-average discount rate–operating leases	6.5%	6.5%

Supplemental cash flow and other information related to leases was as follows:

	Three Months Ended March 31, 2020	Three Months Ended March 31, 2019
Cash paid for amounts included in the measurement of lease liabilities:		
Operating cash flows from operating leases	$ 233,078	$ 226,364

Total remaining annual commitments under non-cancelable lease agreements for each of the years ended December 31 are as follows:

Year Ending December 31,	Operating Leases	Sublease Income	Net Operating Leases
2020 (excluding the three months ended March 31, 2020)	632,301	(218,380)	413,921
2021	968,165	(291,173)	676,992
2022	5,868	—	5,868
2023	3,423	—	3,423
Total future minimum lease payments	1,609,757	$ (509,553)	$ 1,100,204
Less imputed interest	(89,544)		
Total	$ 1,520,213		

6. Derivative Financial Instruments — Warrants

Based upon the Company's analysis of the criteria contained in ASC Topic 815-40, *Contracts in Entity's Own Equity* ("ASC 815-40") or ASC Topic 480-10, *Distinguishing Liabilities from Equity* ("ASC 480-10"), Trovagene determined that certain warrants issued in connection with the execution of certain equity financings must be recorded as derivative liabilities. In accordance with ASC 815-40 and ASC 480-10, the warrants are also being re-measured at each balance sheet date based on estimated fair value, and any resultant change in fair value is being recorded in the Company's condensed statements of operations. The Company estimates the fair value of these warrants using the Black-Scholes option pricing model.

The range of assumptions and weighted averages used to determine the fair value of the warrants valued using the Black-Scholes option pricing model during the periods indicated were:

	Three Months Ended March 31,	
	2020	2019
Range:		
Estimated fair value of Trovagene common stock	$1.01 - $1.24	$3.15 - $3.75
Expected warrant term	2.8 - 3.1 years	3.8 - 4.1 years
Risk-free interest rate	0.28 - 1.61%	2.22 - 2.49%
Expected volatility of Trovagene common stock	111 - 112%	102 - 105%
Dividend yield	0%	0%
Weighted Average[1][2]:		
Fair value of Trovagene common stock	$1.01	
Expected warrant term	2.8 years	
Risk-free interest rate	0.28%	
Expected volatility of Trovagene common stock	112%	
Dividend yield	0%	

(1) Weighted average is only disclosed for periods after January 1, 2020 under the adoption of ASU 2018-13.
(2) The weighted average was calculated using the relative fair value method.

Expected volatility is based on historical volatility of Trovagene's common stock. The warrants have a transferability provision and based on guidance provided in Staff Accounting Bulletin ("SAB") No. 107, *Share-Based Payment* ("SAB No. 107"), for instruments issued with such a provision, Trovagene used the remaining contractual term as the expected term of the warrants. The risk-free rate is based on the U.S. Treasury security rates consistent with the expected remaining term of the warrants at each balance sheet date.

The following table sets forth the components of changes in the Company's derivative financial instruments—warrants liability balance, valued using the Black-Scholes option pricing method, for the periods indicated.

Date	Description	Number of Warrants	Derivative Instrument Liability
December 31, 2019	Balance of derivative financial instruments—warrants liability	64,496	$ 4,127
	Change in fair value of derivative financial instruments—warrants during the period recognized as a gain in the condensed statements of operations	—	(2,107)
March 31, 2020	Balance of derivative financial instruments—warrants liability	64,496	$ 2,020

7. Stockholders' Equity

Stock Options

Stock-based compensation expense related to Trovagene equity awards have been recognized in operating results as follows:

	Three Months Ended March 31,	
	2020	2019
Included in research and development expense	76,868	110,081
Included in selling, general and administrative expense	100,441	89,986
Total stock-based compensation expense	$ 177,309	$ 200,067

The unrecognized compensation cost related to non-vested stock options outstanding at March 31, 2020 and 2019, net of estimated forfeitures, was $1,048,776 and $165,954, respectively, which is expected to be recognized over a weighted-average remaining vesting period of 2.1 and 0.8 years, respectively. The weighted-average remaining contractual term of outstanding options as of March 31, 2020 was approximately 8.8 years. The total fair value of stock options vested during the three months ended March 31, 2020 and 2019 were $34,929 and $188,984, respectively.

The estimated fair value of stock option awards was determined on the date of grant using the Black-Scholes option valuation model with the following weighted-average assumptions during the following periods indicated:

	Three Months Ended March 31,	
	2020	2019
Risk-free interest rate	0.93%	2.33%
Dividend yield	0%	0%
Expected volatility of Trovagene common stock	102%	99%
Expected term	6.0 years	5.1 years

A summary of stock option activity and changes in stock options outstanding is presented below:

	Total Options	Weighted-Average Exercise Price Per Share	Intrinsic Value
Balance outstanding, December 31, 2019	1,015,418	$ 12.77	$ —
Granted	5,000	$ 0.74	
Canceled / Forfeited	(44,910)	$ 2.67	
Expired	(275)	$ 259.20	
Balance outstanding, March 31, 2020	975,233	$ 13.10	$ 1,350
Exercisable at March 31, 2020	72,725	$ 144.72	$ —

On June 6, 2019, the number of authorized shares in the Trovagene 2014 Equity Incentive Plan (“2014 EIP”) was increased from 243,056 to 1,243,056. As of March 31, 2020, there were 207,798 shares available for issuance under the 2014 EIP.

Restricted Stock Units

A summary of the RSU activity is presented below:

	Number of Shares	Weighted-Average Grant Date Fair Value Per Share	Intrinsic Value
Non-vested RSUs outstanding, December 31, 2019	11,301	$ 15.38	$ 14,013
Vested	(6,810)	$ 13.98	$ 9,073
Non-vested RSUs outstanding, March 31, 2020	4,491	$ 17.50	$ 4,536

The total fair value of vested RSUs during the three months ended March 31, 2020 and 2019 were $95,170 and $126,983, respectively.

Warrants

A summary of warrant activity and changes in warrants outstanding, including both liability and equity classifications is presented below:

	Total Warrants (1)	Weighted-Average Exercise Price Per Share (1)	Weighted-Average Remaining Contractual Term (1)
Balance outstanding, December 31, 2019	10,589,482	$ 4.08	3.7 years
Granted	931,967	$ 0.95	
Exercised	(1,005,072)	$ 1.56	
Balance outstanding, March 31, 2020	10,516,377	$ 4.04	3.6 years

(1) Balance outstanding as of March 31, 2020 excludes 131,967 pre-funded warrants to purchase shares of common stock at a nominal exercise price of $0.01 per share. These pre-funded warrants were exercised on April 28, 2020, see Note 11 to the condensed financial statements for further information.

Series C Convertible Preferred Stock and Service Receivable

On January 25, 2019, the Company entered into a Master Services Agreement and a Stock and Warrant Subscription Agreement with PoC Capital, LLC (“PoC”), whereby PoC agreed to finance $1.675 million in clinical studies, including the development costs associated with Phase 1b/2 trial of onvansertib in combination with FOLFIRI and Avastin® in patients with metastatic Colorectal Cancer (“mCRC”) harboring KRAS mutation in exchange for (i)183,334 shares of common stock, (ii) warrants to purchase an aggregate of 150,000 shares of common stock, with an exercise price of $3.762 per share, expiring on January 25, 2024, and (iii) 200,000 shares of Series C Convertible Preferred Stock, each share of which was convertible into 1.67 shares of common stock. In April of 2019, all 200,000 shares of Series C Convertible Preferred Stock were converted into 333,333 shares of the Company's common stock. As of March 31, 2020, there were no shares of Series C Convertible Preferred Stock outstanding.

The Company evaluated the awards issued under this transaction and determined they should be classified as equity. These equity awards were fully vested and nonforfeitable. Since the equity awards were for clinical trial services yet to be provided, the Company recognized $1.675 million service receivables as contra equity. The Company releases the service receivables as clinical trial services are performed. The conversion feature of the Series C Convertible Preferred Stock at the time of issuance was determined to be beneficial on the commitment date. Because the Series C Convertible Preferred Stock was perpetual with no stated maturity date, and the conversions could occur any time from inception, the Company immediately recorded a non-cash deemed dividend of $0.3 million related to the beneficial conversion feature arising from the issuance of Series C Convertible Preferred Stock. This non-cash deemed dividend increased the Company’s net loss attributable to common stockholders and net loss per share.

8. Commitments and Contingencies

Executive and Consulting Agreements

Certain executive agreements provide for severance payments in case of terminations without cause or certain change of control scenarios.

Research and Development and Clinical Trial Agreements

In March 2017, the Company entered into a license agreement with Nerviano which granted the Company development and commercialization rights to NMS-1286937, which Trovagene refers to as onvansertib. Onvansertib is an oral, investigative drug and a highly-selective adenosine triphosphate competitive inhibitor of the serine/threonine PLK1. The Company plans to develop onvansertib in patients with leukemias/lymphomas and solid tumor cancers. Upon execution of the agreement, the Company paid $2.0 million in license fees which were expensed to research and development costs. The Company was committed to order $1.0 million of future services provided by Nerviano, such as the cost to manufacture drug product, no later than June 30, 2019, and these services have been purchased. Terms of the agreement also provide for the Company to pay royalties based on certain development and sales milestones.

The Company is a party to various agreements under which it licenses technology on an exclusive basis in the field of human diagnostics and oncology therapeutics. License fees are generally calculated as a percentage of product revenues, with rates that vary by agreement. For the three months ended March 31, 2020 and 2019, payments have not been material.

Litigation

Trovagene does not believe that it has legal liabilities that are probable or reasonably possible that require either accrual or disclosure. From time to time, the Company may become involved in various lawsuits and legal proceedings that arise in the ordinary course of business. Litigation is subject to inherent uncertainties, and an adverse result in matters may arise from time to time that may harm the Company's business. As of the date of this report, management believes that there are no claims against the Company, which it believes will result in a material adverse effect on the Company's business or financial condition.

9. Related Party Transactions

In November 2018, the Company entered into a Material Transfer Agreement ("MTA") with Leucadia Life Sciences ("Leucadia") pursuant to which Leucadia will develop a PCR-based assay for onvansertib for Acute Myeloid Leukemia ("AML"). The Company's CEO, Dr. Thomas Adams, is a principal stockholder of Leucadia. In connection with the MTA, the Company entered into a consulting agreement with Tommy Adams, Co-Founder & Chief Operating Officer of Leucadia, who is the son of Dr. Adams. During the three months ended March 31, 2020 and 2019, the Company incurred and recorded approximately $276,000 and $245,000 respectively, of research and development expenses for services performed by Leucadia and Tommy Adams.

10. COVID-19

The COVID-19 outbreak in the United States has caused significant business disruption. The extent of the impact of COVID-19 on the Company's operational and financial performance will depend on certain developments, including the duration and spread of the outbreak, and impact on the Company's clinical trials, employees and vendors, all of which are uncertain and cannot be predicted. At this point, the extent to which COVID-19 may impact the Company's financial condition or results of operations is uncertain. A prolonged outbreak could have a material adverse impact on financial results and business operations of the Company, including the timing and ability of Company to complete certain clinical trials and other efforts required to advance the development of its drugs and raise additional capital.

In response to the pandemic, the Coronavirus Aid, Relief and Economic Security Act ("CARES ACT") was signed into law on March 27, 2020. The CARES Act, among other things, includes tax provisions relating to refundable payroll tax credits, deferment of employer's social security payments, net operating loss utilization and carryback periods, modifications to the net interest deduction limitations and technical corrections to tax depreciation methods for qualified improvement property. The CARES did not have a material impact on our income tax provision for the three months ended March 31, 2020. We continue to evaluate the impact of the CARES Act on our financial position, results of operations and cash flows.

On April 15, 2020, the Company was granted a loan pursuant to the Paycheck Protection Program under Division A, Title I of the CARES Act (see Note 11).

11. Subsequent Events

Private Placement

On April 9, 2020, the Company entered into a securities purchase agreement with Lincoln Park Capital Fund, LLC ("LPC"), pursuant to which it sold to LPC, (i) in a registered direct offering, an aggregate of (a) 904,970 shares (the "Shares") of common stock, par value $0.0001 per share ("Common Stock") and (b) Series K pre-funded warrants (the "Series K Pre-Funded Warrants") to purchase up to 255,000 shares (the "Series K Warrant Shares") of the Company's common stock, par value $0.0001 per share (the "Common Stock"), which will be exercisable immediately upon issuance for a period of five years after the date of issuance, and (ii) in a concurrent private placement, Series L warrants (the "Series L Warrants") to purchase up to 1,159,970 shares (the "Series L Warrant Shares") of Common Stock, for aggregate gross proceeds to the Company of approximately $1.084 million, before deducting estimated offering expenses payable by the Company.

On April 28, 2020 LPC exercised 255,000 Series K Pre-Funded Warrants.

Small Business Administration Payroll Protection Program Loan

On April 15, 2020, the Company was granted a loan (the "Loan") from JPMorgan Chase Bank, N.A. in the aggregate amount of $305,000, pursuant to the Paycheck Protection Program (the "PPP") under Division A, Title I of the CARES Act.

The Loan, which was in the form of a Note dated April 15, 2020 issued by the Company, matures on April 15, 2022 and bears interest at a rate of 0.98% per annum, payable monthly commencing on November 15, 2020. The Note may be prepaid by the Company at any time prior to maturity with no prepayment penalties. Funds from the Loan may only be used for payroll costs, rent, and utilities. The Company intends to use the entire Loan amount for qualifying expenses. Under the terms of the PPP, certain amounts of the Loan may be forgiven if they are used for qualifying expenses as described in the CARES Act.

Amendment to 2014 Equity Incentive Plan

On April 16, 2020 the 2014 Equity Incentive Plan was approved by the shareholders and amended to increase the number of shares of common stock reserved for issuance thereunder to 2,243,056 from 1,243,056.

Exercise of Series I Pre-Funded Warrants

On April 28, 2020 LPC exercised 131,967 Series I Pre-Funded Warrants.

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

Forward-Looking Statements

This Quarterly Report on Form 10-Q includes forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended (the "Securities Act") and Section 21E of the Securities Exchange Act of 1934, as amended (the "Exchange Act"). All statements other than statements of historical facts contained in this Quarterly Report, including statements regarding the future financial position, business strategy and plans and objectives of management for future operations, are forward-looking statements. The words "believe," "may," "will," "estimate," "continue," "anticipate," "intend," "should," "plan," "expect," and similar expressions, as they relate to us, are intended to identify forward-looking statements. We have based these forward-looking statements largely on current expectations and projections about future events and financial trends that we believe may affect our financial condition, results of operations, business strategy and financial needs. These forward-looking statements are subject to a number of risks, uncertainties and assumptions.

In addition, our business and financial performance may be affected by the factors that are discussed under "Risk Factors" in the Annual Report on Form 10-K for the year ended December 31, 2019, filed on February 27, 2020. Moreover, we operate in a very competitive and rapidly changing environment. New risk factors emerge from time to time and it is not possible for us to predict all risk factors, nor can we assess the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements.

You should not rely upon forward-looking statements as predictions of future events. We cannot assure you that the events and circumstances reflected in the forward-looking statements will be achieved or occur. Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee future results, levels of activity, performance or achievements.

The following discussion and analysis is qualified in its entirety by, and should be read in conjunction with, the more detailed information set forth in the financial statements and the notes thereto appearing elsewhere in this Quarterly Report on Form 10-Q. This discussion should not be construed to imply that the results discussed herein will necessarily continue into the future, or that any conclusion reached herein will necessarily be indicative of actual operating results in the future. Such discussion represents only the best present assessment of our management.

Overview

We are a clinical-stage, oncology therapeutics company, taking a Precision Cancer Medicine™ ("PCM™") approach to develop drugs that target mitosis (cell division) to treat various types of cancer, including prostate, colorectal and leukemia. By integrating a biomarker strategy into our development programs, we will be able to identify patients more likely to respond to treatment.

On March 15, 2017, we announced that we licensed onvansertib, a PLK1 inhibitor, from Nerviano, pursuant to a license agreement with Nerviano dated March 13, 2017. This exclusive, world-wide license agreement includes 3 issued patents for onvansertib which cover composition of matter, salt forms of onvansertib and combination of onvansertib with other drugs. Onvansertib was developed to have high selectivity to PLK1 (at low nanomolar IC_{50} levels), to have ideal pharmacokinetics, including oral bioavailability and administration and a drug half-life of approximately 24 hours, allowing for flexible dosing and scheduling, and is well tolerated and safe with only mild to moderate side effects reported to-date. A Phase 1 safety study of onvansertib has been successfully completed in patients with advanced metastatic solid tumors and published in 2017 in *Investigational New Drugs.*

We currently have three active clinical trials: a Phase 1b/2 open-label clinical trial of onvansertib in combination with FOLFIRI and Avastin® in patients with mCRC with a KRAS mutation, being conducted at USC Norris Comprehensive Cancer Center and The Mayo Clinic; a Phase 2 open-label clinical trial of onvansertib in combination with abiraterone acetate (Zytiga®) and prednisone in patients with mCRPC, being conducted at Beth Israel Deaconess Medical Center ("BIDMC"), Dana-Farber Cancer Institute ("DFCI"), and Massachusetts General Hospital ("MGH"); and a Phase 1b/2 open-label clinical trial of onvansertib in combination with standard-of-care chemotherapy, decitabine, in patients with AML, being conducted at eight sites across the U.S.

Onvansertib is a first-in-class, third-generation, oral and highly-selective PLK1 inhibitor with demonstrated antitumor activity in different preclinical models. Polo-like kinase family consists of 5 members (PLK1-PLK5) and they are involved in multiple functions in cell division, including the regulation of centrosome maturation, checkpoint recovery, spindle assembly, cytokinesis, apoptosis and many others. PLK1 is essential for the maintenance of genomic stability during cell division. The over-expression of PLK1 can lead to immature cell division followed by aneuploidy and cell death, a hallmark of cancer. PLK1 is over-expressed in a wide variety of leukemias/lymphomas and solid tumor cancers, including acute myeloid leukemia, non-Hodgkin lymphoma, prostate, lung, breast, ovarian, colorectal and adrenocortical carcinoma. In addition, several studies have shown that over-expression of PLK1 is associated with poor prognosis. Blocking the expression of PLK1 by kinase inhibitors, such as onvansertib, can effectively inhibit growth of, and induce, tumor cell death.

We believe the high-selectivity of onvansertib to PLK1, its 24-hour half-life and oral bioavailability, as well as its demonstrated safety and tolerability, with expected on-target, easy to manage and reversible side effects, may prove useful in addressing clinical therapeutic needs across a variety of cancers.

Onvansertib has been tested in-vivo in different xenograft and transgenic models suggesting tumor growth inhibition or tumor regression when used in combination with other therapies. Onvansertib has been tested for antiproliferative activity on a panel of 148 tumor cell lines and appeared highly active with an IC_{50} (a measure concentration for 50% target inhibition) below 100 nM in 75 cell lines and IC_{50} values below 1 uM in 133 out of 148 cell lines. Onvansertib also appears active in cells expressing multi-drug resistant (“MDR”) transporter proteins and we believe its apparent ability to overcome the MDR transporter resistance mechanism in cancer cells could prove useful in broader drug combination applications.

In in-vitro and in-vivo preclinical studies, synergy (interaction of discrete drugs such that the total effect is greater than the sum of the individual effects) has been demonstrated with onvansertib when used in combination with numerous different chemotherapies, including cisplatin, cytarabine, doxorubicin, gemcitabine and paclitaxel, as well as targeted therapeutics, such as abiraterone acetate (Zytiga®), histone deacetylase (“HDAC”) inhibitors, such as belinostat (Beleodaq®), quizartinib (AC220), a development stage FLT3 inhibitor, and bortezomib (Velcade®). These therapies are used clinically for the treatment of solid tumor cancers, leukemias and lymphomas including mCRPC, mCRC, triple negative breast cancer (“TNBC”), AML and non-Hodgkin lymphoma (“NHL”).

We continue to focus on advancing our three active clinical trials with onvansertib in 2020. We have advanced our business and clinical studies through the following events to-date in 2020:

Trovagene Announces Corporate Name Change to Cardiff Oncology, Inc. and Appointment of Mark Erlander, PhD to Chief Executive Officer

On May 6, 2020, we announced a change in our company name from Trovagene, Inc. to Cardiff Oncology, Inc., and a change in leadership with Mark Erlander, PhS, assuming the role of Chief Executive Officer. Thomas Adams, PhD, our current Chairman and CEO will transition his role to Executive Chairman. Our new name reflects our mission and commitment to turning the tide on cancer by advancing the development of onvansertib, a first-in-class, third-generation, oral and highly-selective Polo-like Kinase 1 (PLK1) inhibitor, across multiple cancer types. The change in company name and leadership will be effective as of Friday, May 8, 2020. In connection with the new corporate name, the Company’s Nasdaq ticker symbol will change to ‘CRDF’ and will be effective at the open of the market on Friday, May 8, 2020. The Company’s former ticker symbol ‘TROV’ will remain effective through market close as of May 7, 2020. The website for Cardiff Oncology will be www.cardiffoncology.com.

Trovagene Announces Presentation of Data from Trial in KRAS-Mutated Metastatic Colorectal (mCRC) Cancer Demonstrating Consistent Tumor Regression Across KRAS Mutation Subtypes and Durable Response

On April 28, 2020, we announced new positive results from our ongoing Phase 1b/2 clinical trial of onvansertib in combination with FOLFIRI and Avastin® (bevacizumab) for second-line treatment of patients with KRAS-mutated metastatic colorectal cancer (mCRC). The data were featured in a virtual oral presentation, delivered by Dr. Afsaneh Barzi, at the American Association for Cancer Research (AACR) conference on Monday, April 27th, 2020. The ongoing Phase 1b/2 trial has enrolled 12 patients with 88% response in 7 of 8 evaluable patients; to-date 3 patients with a partial response (PR); 4 patients with stable disease (SD). Data show median progression-free survival (PFS) of at least 6.5 months with 6 patients continuing on treatment to-date; one patient has gone on to have successful curative surgery. Changes in KRAS mutation blood levels is the biomarker used in this trial; decreases to non-detectable in cycle one of treatment is predictive of future tumor regression and response.

Trovagene Announces Expansion of Board of Directors with the Addition of Three Industry Leaders

On April 22, 2020, we announced the election of three new independent Directors to our Board of Directors; Dr. James Armitage, Ms. Lâle White and Dr. Gary Pace. Each new Director brings extensive and relevant experience to the Company and will provide valuable perspective and meaningful impact as we enhance value to our shareholders.

Trovagene Announces Acceptance of Phase 1b/2 KRAS-Mutated Metastatic Colorectal Cancer (mCRC) Trial Abstract for Presentation at the 2020 ASCO Annual Meeting

On April 1, 2020, we announced that its Phase 1b/2 clinical trial of onvansertib in combination with standard-of-care FOLFIRI/Avastin® (bevacizumab) for second-line treatment of patients with KRAS-mutated mCRC, will be featured in a presentation at the 2020 American Society of Clinical Oncology (ASCO) Annual Meeting to be held from May 29 - June 2, 2020.

Trovagene Presents Phase 2 Data Demonstrating the Ability of Onvansertib to Overcome Zytiga®-Resistance and Provide Clinical Benefit for mCRPC Patients

On February 13, 2020 Trovagene announced positive data from our ongoing Phase 2 trial of onvansertib in combination with Zytiga® (abiraterone - Johnson & Johnson)/prednisone, all administered orally, for the treatment of patients with Zytiga®-resistant metastatic castration-resistant prostate cancer (mCRPC). Data demonstrates efficacy of onvansertib across known androgen receptor resistance mechanisms. Additionally, onvansertib-induced decreases in circulating tumor cells (CTCs) is a surrogate for efficacy and has been associated with greater progression-free survival in mCRPC patients.

Trovagene Receives Approximately $1.45 Million from Exercise of Warrants

On January 29, 2020, Trovagene announced that it received approximately $1.45 million in proceeds from holders exercising common stock purchase warrants at an exercise price of $1.56 per share. The warrants were issued as part of the units sold to certain institutional investors in October, 2019. The Company intends to use the proceeds to continue funding its clinical development activities and for working capital and general corporate purposes. Additionally, we received two separate individual investments of approximately $1.0 million each in March and April, respectively, for a total of approximately $3.45 million to-date in 2020.

Our accumulated deficit through March 31, 2020 is $212,992,505. To date, we have generated minimal revenues and expect to incur additional losses to perform further research and development activities.

Our drug development efforts are in their early stages, and we cannot make estimates of the costs or the time that our development efforts will take to complete, or the timing and amount of revenues related to the sale of our drugs. The risk of completion of any program is high because of the many uncertainties involved in developing new drug candidates to market, including the long duration of clinical testing, the specific performance of proposed products under stringent clinical trial protocols, extended regulatory approval and review cycles, our ability to raise additional capital, the nature and timing of research and development expenses, and competing technologies being developed by organizations with significantly greater resources.

Off-Balance Sheet Arrangements

We had no off-balance sheet arrangements as of March 31, 2020.

Critical Accounting Policies

Financial Reporting Release No. 60 requires all companies to include a discussion of critical accounting policies or methods used in the preparation of financial statements. Our accounting policies are described in ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS of our Annual Report on Form 10-K as of and for the year ended December 31, 2019, filed with the SEC on February 27, 2020. There have been no changes to our critical accounting policies since December 31, 2019.

RESULTS OF OPERATIONS

Three Months Ended March 31, 2020 and 2019

Revenues

Our total revenues were $67,704 and $62,021 for the three months ended March 31, 2020 and 2019, respectively. The components of our revenues were as follows:

	Three Months Ended March 31,		
	2020	2019	Increase (Decrease)
Royalties	$ 67,704	$ 62,021	$ 5,683
Total revenues	$ 67,704	$ 62,021	$ 5,683

The increase in royalty income for the three months ended March 31, 2020 as compared to the prior period is primarily from fluctuations of our sales-based or usage-based royalties on our intellectual property licenses. Revenue recognition of the royalty depends on the timing and overall sales activities of the licensees.

Research and Development Expenses

Research and development expenses consisted of the following:

	Three Months Ended March 31,		
	2020	2019	Increase (Decrease)
Salaries and staff costs	$ 423,973	$ 403,888	$ 20,085
Stock-based compensation	76,868	110,081	(33,213)
Clinical trials, outside services, and lab supplies	1,973,541	1,927,929	45,612
Facilities and other	231,309	206,701	24,608
Total research and development	$ 2,705,691	$ 2,648,599	$ 57,092

Research and development expenses increased by $57,092 to $2,705,691 for the three months ended March 31, 2020 from $2,648,599 for the same period in 2019. The overall increase in research and development expenses was primarily due to costs associated with clinical programs and outside service costs for three ongoing clinical trials related to the development of our lead drug candidate, onvansertib, facilities and other increased primarily due to increased travel and conferences to present data related to our lead drug candidate, onvansertib. We expect an increase in research and development costs as we advance the development of onvansertib.

Selling, General and Administrative Expenses

Selling, general and administrative expenses consisted of the following:

	Three Months Ended March 31,		
	2020	2019	Increase (Decrease)
Salaries and staff costs	$ 493,557	$ 522,797	$ (29,240)
Stock-based compensation	100,441	89,986	10,455
Outside services and professional fees	494,989	457,832	37,157
Facilities and other	397,032	304,570	92,462
Total selling, general and administrative	$ 1,486,019	$ 1,375,185	$ 110,834

Selling, general and administrative expenses increased by $110,834 to $1,486,019 for the three months ended March 31, 2020 from $1,375,185 for the same period in 2019. The significant components of the increase were primarily due to the increase in facilities and other costs, and outside services. The increase in facilities and other cost was due to an increase in insurance costs for the three months ended March 31, 2020 as compared to the same period of 2019.

Interest Income

Interest income was $35,823 for the three months ended March 31, 2020 as compared to $64,743 for the same period of 2019. The decrease of interest income is primarily due to lower interest rates for three months ended March 31, 2020 as compared to the same period of 2019.

Change in Fair Value of Derivative Financial Instruments — Warrants

We have issued warrants that are accounted for as derivative liabilities. As of March 31, 2020, the derivative financial instruments—warrants liabilities were revalued to $2,020, resulting in a decrease in value of $2,107 from December 31, 2019, based primarily upon the fluctuation in our stock price as well as the changes in the expected term, volatility, and risk-free interest rates for the expected term. The decrease in value upon remeasurement at March 31, 2020 was recorded as a gain from the change in fair value of derivative financial instruments—warrants in the condensed statement of operations.

Net Loss

Net loss and per share amounts were as follows:

	Three Months Ended March 31,		
	2020	2019	Increase (Decrease)
Net loss attributable to common shareholders	$ (4,094,622)	$ (4,179,100)	$ (84,478)
Net loss per common share — basic and diluted	$ (0.41)	$ (1.02)	$ (0.61)
Weighted average shares outstanding — basic and diluted	9,910,306	4,086,561	5,823,745

The $84,478 decrease in net loss attributable to common shareholders was primarily the result of the decrease of $0.3 million attributable to the deemed dividend recognized on beneficial conversion features of Series C Convertible Preferred Stock issuance occurring during the three months ended March 31, 2019, offset by an increase in operating expenses of $0.2 million for three months ended March 31, 2020 compared to the same period in the prior year. The $0.61 decrease in basic net loss per share was impacted by the increase in basic weighted average shares outstanding resulting primarily from the issuance of approximately 6.6 million shares of common stock and common stock equivalents from April 1, 2019 through March 31, 2020.

LIQUIDITY AND CAPITAL RESOURCES

The COVID-19 outbreak in the United States has caused business disruption. The extent of the impact of COVID-19 on the our operational and financial performance will depend on certain developments, including the duration and spread of the outbreak, and impact on our clinical trials, employees and vendors, all of which are uncertain and cannot be predicted. The economic effects of the outbreak could also have an adverse effect on the Company's ability to raise additional capital. At this point, the extent to which COVID-19 may impact our financial condition or results of operations is uncertain.

As of March 31, 2020, we had $9,277,025 in cash and cash equivalents. Net cash used in operating activities for the three months ended March 31, 2020 was $3,374,637, compared to $3,360,046 for the three months ended March 31, 2019. Our use of cash was primarily a result of the net loss of $4,088,562 for the three months ended March 31, 2020, adjusted for non-cash items related to release of clinical trial funding commitment of $293,017 stock-based compensation of $177,309, and depreciation and amortization of $119,320. The net change in our operating assets and liabilities was $126,386 offsetting cash used in operations. At our current and anticipated level of operating loss, we expect to continue to incur an operating cash outflow for the next several years.

Net cash used in investing activities was $0 during the three months ended March 31, 2020, compared to $5,274 for the same period in 2019, which were for capital expenditures in the prior period.

Net cash provided in financing activities was $2,456,370 during the three months ended March 31, 2020, compared to $3,242,266 for the same period in 2019. Net cash provided in financing activities during the three months ended March 31, 2020 was primarily from $1.5 million of proceeds from the exercise of warrants and $1.0 million from the sale of common stock and warrants. Net cash provided in financing activities during the three months ended March 31, 2019 was primarily from $3.3 million of proceeds from the exercise of warrants.

As of March 31, 2020, and December 31, 2019, we had working capital of $5,401,608 and $6,571,985, respectively.

Based on our current business plan and assumptions, we expect to continue to incur significant losses and require significant additional capital to further advance our clinical trial programs and support our other operations. Considering our current cash resources, we believe our existing resources will be sufficient to fund our planned operations into the fourth quarter of 2020. In addition, we have based our cash sufficiency estimates on our current business plan and assumptions that may prove to be wrong. We could utilize our available capital resources sooner than we currently expect, and we could need additional funding to sustain our operations even sooner than currently anticipated. These circumstances raise substantial doubt about our ability to continue as a going concern.

Our working capital requirements will depend upon numerous factors including but not limited to the nature, cost and timing of our research and development programs. To date, our sources of cash have been primarily limited to the sale of equity securities. We cannot be certain that additional funding will be available on acceptable terms, or at all. To the extent that we raise additional funds by issuing equity securities, our stockholders may experience significant dilution. If we are unable to raise additional capital when required or on acceptable terms, we may have to significantly delay, scale back or discontinue the development and/or commercialization of one or more product candidates, all of which may have a material adverse impact on our operations. We may also be required to (i) seek collaborators for product candidates at an earlier stage than otherwise would be desirable and on terms that are less favorable than might otherwise be available; or (ii) relinquish or otherwise dispose of rights to technologies, product candidates or products that we would otherwise seek to develop or commercialize ourselves on unfavorable terms. We are evaluating all options to raise additional capital, increase revenue, as well as reduce costs, in an effort to strengthen our liquidity position, which may include the following: (1) Raising capital through public and private equity offerings; (2) Introducing operation and business development initiatives to bring in new revenue streams; (3) Reducing operating costs by identifying internal synergies; or (4) Engaging in strategic partnerships. We continually assess our spending plans to effectively and efficiently address our liquidity needs.

CONTRACTUAL OBLIGATIONS

For a discussion of our contractual obligations see (i) our Financial Statements and Notes to Financial Statements Note 10. *Commitments and Contingencies*, and (ii) Item 7 Management Discussion and Analysis of Financial Condition and Results of Operations — *Contractual Obligations and Commitments*, included in our Annual Report on Form 10-K as of December 31, 2019. There have been no material changes to our contractual oblications in our Form 10-K for the year ended December 31, 2019, except for the following.

Small Business Administration Payroll Protection Program Loan

On April 15, 2020, the Company was granted a loan (the “Loan”) from JPMorgan Chase Bank, N.A. in the aggregate amount of $305,000, pursuant to the Paycheck Protection Program (the “PPP”) under Division A, Title I of the CARES Act, which was enacted March 27, 2020.

The Loan, which was in the form of a Note dated April 15, 2020 issued by the Company, matures on April 15, 2022 and bears interest at a rate of 0.98% per annum, payable monthly commencing on November 15, 2020. The Note may be prepaid by the Company at any time prior to maturity with no prepayment penalties. Funds from the Loan may only be used for payroll costs, rent, and utilities. The Company intends to use the entire Loan amount for qualifying expenses. Under the terms of the PPP, certain amounts of the Loan may be forgiven if they are used for qualifying expenses as described in the CARES Act.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Not applicable.

ITEM 4. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

We have performed an evaluation under the supervision and with the participation of our management, including our principal executive officer (CEO) and principal financial officer (VP, Finance), of the effectiveness of our disclosure controls and procedures, as defined in Rule 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended (the "Exchange Act"). Based on that evaluation, our principal executive officer and principal financial officer concluded that our disclosure controls and procedures were effective as of March 31, 2020 to provide reasonable assurance that information required to be disclosed by us in the reports filed or submitted by us under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms.

Our disclosure controls and procedures are designed to provide reasonable assurance of achieving their objectives as specified above. Management does not expect, however, that our disclosure controls and procedures will prevent or detect all errors and fraud. Any control system, no matter how well designed and operated, is based upon certain assumptions and can provide only reasonable, not absolute, assurance that its objectives will be met. Further, no evaluation of controls can provide absolute assurance that misstatements due to error or fraud will not occur or that all control issues and instances of fraud, if any, within the Company have been detected.

Changes in Internal Control over Financial Reporting

There was no change in our internal control over financial reporting during the three months ended March 31, 2020 that materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

PART II. OTHER INFORMATION

ITEM 1. LEGAL PROCEEDINGS

None.

ITEM 1A. RISK FACTORS

There have been no material changes from the risk factors disclosed in our Form 10-K for the year ended December 31, 2019, except for the following.

A pandemic, epidemic or outbreak of an infectious disease, such as COVID-19, may materially and adversely affect our business and operations.

The recent outbreak of COVID-19 originated in Wuhan, China, in December 2019 and has since spread to multiple countries, including the United States and several European countries. On January 30, 2020, the World Health Organization announced a global health emergency. On March 11, 2020, the World Health Organization declared the outbreak a pandemic. The COVID-19 pandemic is affecting the United States and global economies and may affect our operations and those of third parties on which we rely, including by causing disruptions in the supply of our product candidate and the conduct of current and future clinical trials. In addition, the COVID-19 pandemic may affect the operations of the FDA and other health authorities, which could result in delays of reviews and approvals, including with respect to our product candidate. The evolving COVID-19 pandemic is also likely to directly or indirectly impact the pace of enrollment in our ongoing clinical trials for at least the next several months and possibly longer as patients may avoid or may not be able to travel to healthcare facilities and physicians' offices unless due to a health emergency. Such facilities and offices may also be required to focus limited resources on non-clinical trial matters, including treatment of COVID-19 patients, and may not be available, in whole or in part, for clinical trial services related to our product candidate. Additionally, while the potential economic impact brought by, and the duration of the COVID-19 pandemic is difficult to assess or predict, the impact of the COVID-19 pandemic on the global financial markets may reduce our ability to access capital, which could negatively impact our short-term and long-term liquidity. The ultimate impact of the COVID-19 pandemic is highly uncertain and subject to change. We do not yet know the full extent of potential delays or impacts on our business, financing or clinical trial activities or on healthcare systems or the global economy as a whole. However, these effects could have a material impact on our liquidity, capital resources, operations and business and those of the third parties on which we rely.

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

None**.**

ITEM 3. DEFAULTS UPON SENIOR SECURITIES

None.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

ITEM 5. OTHER INFORMATION

None.

ITEM 6. EXHIBITS

Exhibit Number	Description of Exhibit
3.1	Certificate of Amendment to Amend and Restated Certificate of Incorporation of Trovagene, Inc. (incorporated by reference to Exhibit 3.1 to the Company's Current Report on Form 8-K filed on May 6, 2020)
10.1	Securities Purchase Agreement, dated March 30, 2020, by and between Trovagene, Inc. and the Purchaser. (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on March 31, 2020)
10.2	Form of Series I Pre-Funded Warrant (incorporated by reference to Exhibit 10.2 to the Company's Current Report on Form 8-K filed on March 31, 2020)
10.3	Form of Series J Warrant (incorporated by reference to Exhibit 10.3 to the Company's Current Report on Form 8-K filed on March 31, 2020)
10.4	Securities Purchase Agreement, dated April 9, 2020, by and between Trovagene, Inc. and the Purchaser. (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on April 10, 2020)
10.5	Form of Series K Pre-Funded Warrant (incorporated by reference to Exhibit 10.2 to the Company's Current Report on Form 8-K filed on April 10, 2020)
10.6	Form of Series L Warrant (incorporated by reference to Exhibit 10.3 to the Company's Current Report on Form 8-K filed on April 10, 2020)
31.1	Certification of Principal Executive Officer required by Rule 13a-14(a)/15d-14(a) under the Exchange Act.
31.2	Certification of Principal Financial Officer required by Rule 13a-14(a)/15d-14(a) under the Exchange Act.
32.1	Certification of Principal Executive Officer pursuant to 18 U.S.C Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.2	Certification of Principal Financial Officer 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
101.CAL	XBRL Taxonomy Extension Calculation Linkbase
101.LAB	XBRL Taxonomy Extension Labels Linkbase
101.PRE	XBRL Taxonomy Extension Presentation Linkbase
101.DEF	XBRL Taxonomy Extension Definition Linkbase

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.

TROVAGENE, INC.

May 7, 2020

By: /s/ Thomas Adams

Thomas Adams

Chief Executive Officer

TROVAGENE, INC.

May 7, 2020

By: /s/ Brigitte Lindsay

Brigitte Lindsay

VP, Finance

Exhibit 31.1

CERTIFICATION OF PRINCIPAL EXECUTIVE OFFICER

I, Thomas Adams, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Trovagene, 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 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.

May 7, 2020

/s/ Thomas Adams

Thomas Adams

Chief Executive Officer

Exhibit 31.2

CERTIFICATION OF PRINCIPAL FINANCIAL OFFICER

I, Brigitte Lindsay, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Trovagene, 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 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.

May 7, 2020

/s/ Brigitte Lindsay

Brigitte Lindsay

VP, Finance

Exhibit 32.1

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

In connection with the Quarterly Report of Trovagene, Inc. (the "Company") on Form 10-Q for the three months ended March 31, 2020 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Thomas Adams, Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that:

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

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

May 7, 2020

/s/ Thomas Adams

Thomas Adams

Chief Executive Officer

Exhibit 32.2

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

In connection with the Quarterly Report of Trovagene, Inc. (the "Company") on Form 10-Q for the three months ended March 31, 2020 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Brigitte Lindsay, VP, Finance of the Company, certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that:

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

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

May 7, 2020

/s/ Brigitte Lindsay

Brigitte Lindsay

VP, Finance