NANOPHASE TECHNOLOGIES Corp
Form 10-Q
November 19, 2018

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: **September 30, 2018**

or

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) of the Securities Exchange Act of 1934

For the transition period from ______ to ______

Commission File Number: **000-22333**

Nanophase Technologies Corporation

(Exact name of registrant as specified in its charter)

Delaware	**36-3687863**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)

1319 Marquette Drive, Romeoville, Illinois 60446

(Address of principal executive offices, and zip code)

Registrant's telephone number, including area code: **(630) 771-6708**

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 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 "accelerated filer", "large 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

As of November 19th, 2018, there were 33,911,792 shares outstanding of common stock, par value $.01, of the registrant.

NANOPHASE TECHNOLOGIES CORPORATION

QUARTER ENDED SEPTEMBER 30, 2018

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PART I – FINANCIAL INFORMATION

Item 1. Financial Statements

NANOPHASE TECHNOLOGIES CORPORATION

CONSOLIDATED CONDENSED BALANCE SHEETS

(Unaudited)

(in thousands except share and per share data)

	September 30, 2018	December 31, 2017
ASSETS		
Current assets:		
Cash and cash equivalents	$1,034	$1,955
Trade accounts receivable, less allowance for doubtful accounts of $5 on September 30, 2018 and December 31, 2017	1,917	1,115
Inventories, net	2,091	1,385
Prepaid expenses and other current assets	255	169
Total current assets	5,297	4,624
Equipment and leasehold improvements, net	1,761	1,624
Other assets, net	16	18
	$7,074	$6,266
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Line of credit	$500	$300
Current portion of capital lease obligations	197	143
Accounts payable	1,916	1,038
Accrued expenses	980	543
Total current liabilities	3,593	2,024
Long-term portion of capital lease obligations	496	416
Long-term deferred rent	361	410

Asset retirement obligations	189	184
Total long-term liabilities	1,046	1,010
Stockholders' equity:		
Preferred stock, $.01 par value, 24,088 shares authorized and no shares issued and outstanding	—	—
Common stock, $.01 par value, 42,000,000 shares authorized; 33,911,792 shares issued and outstanding on September 30, 2018 and 33,847,793 on December 31, 2017	339	338
Additional paid-in capital	98,737	98,563
Accumulated deficit	(96,641)	(95,669)
Total stockholders' equity	2,435	3,232
	$7,074	$6,266

See Notes to Financial Statements.

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NANOPHASE TECHNOLOGIES CORPORATION

CONSOLIDATED CONDENSED STATEMENTS OF OPERATIONS

(Unaudited)

(in thousands except share and per share data)

	Three months ended September 30, 2018	2017	Nine months ended September 30, 2018	2017
Revenue:				
Product revenue	$3,998	$2,524	$10,908	$9,525
Other revenue	24	261	128	327
Total revenue	4,022	2,785	11,036	9,852
Operating expense:				
Cost of revenue	2,965	2,200	8,164	6,862
Gross profit	1,057	585	2,872	2,990
Research and development expense	416	494	1,513	1,354
Selling, general and administrative expense	765	725	2,299	2,185
Loss from operations	(124)	(634)	(940)	(549)
Interest expense	12	9	32	25
Other, net	—	—	—	—
Loss before provision for income taxes	(136)	(643)	(972)	(574)
Provision for income taxes	—	—	—	—
Net Loss	$(136)	$(643)	$(972)	$(574)
Net income/(loss) per basic shares	$0.00	$(0.02)	$(0.03)	$(0.02)
Weighted average number of basic common shares outstanding	33,879,097	31,239,678	33,858,184	31,234,735
Net income/(loss) per diluted share	$0.00	$(0.02)	$(0.03)	$(0.02)
Weighted average number of diluted common shares outstanding	33,879,097	31,239,678	33,858,184	31,234,735

See Notes to Financial Statements.

NANOPHASE TECHNOLOGIES CORPORATION

CONSOLIDATED CONDENSED STATEMENTS OF CASH FLOWS

(Unaudited)

(in thousands)

	Nine months ended September 30,	
	2018	2017
Operating activities:		
Net loss	$(972)	$(574)
Adjustment to reconcile net income loss to net cash used in operating activities:		
Depreciation and amortization	239	267
Stock compensation expense	146	140
Changes in assets and liabilities related to operations:		
Trade accounts receivable	(802)	(1,147)
Inventories	(706)	(104)
Prepaid expenses and other assets	(84)	53
Accounts payable	872	333
Accrued expenses	386	166
Net cash used in operating activities	(921)	(866)
Investing activities:		
Proceeds from disposal of equipment	—	136
Acquisition of equipment and leasehold improvements	(115)	(121)
Net cash (used in) provided by investing activities	(115)	15
Financing activities:		
Principal payments on capital leases	(114)	(122)
Proceeds from line of credit	1,200	250
Payments on line of credit	(1,000)	—
Proceeds from exercise of stock options and sale of common stock	29	14
Net cash provided by financing activities	115	142
Decrease in cash and cash equivalents	(921)	(709)
Cash and cash equivalents at beginning of period	1,955	1,779
Cash and cash equivalents at end of period	$1,034	$1,070
Supplemental cash flow information:		
Interest paid	$32	$24
Supplemental non-cash investing activities:		
Accounts payable incurred for the purchase of equipment and leasehold improvements	$6	$9

Proceeds from capital leases	$248	$307

See Notes to Financial Statements.

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NANOPHASE TECHNOLOGIES CORPORATION

NOTES TO CONSOLIDATED CONDENSED FINANCIAL STATEMENTS

(Unaudited)

(in thousands, except share and per share data or as otherwise noted herein)

(1) Basis of Presentation

The accompanying unaudited consolidated condensed interim financial statements of Nanophase Technologies Corporation (“Nanophase” or the “Company”, including “we”, “our” or “us”) along with its wholly-owned subsidiary, Solésence®, reflect all adjustments (consisting of normal recurring adjustments) which, in the opinion of management, are necessary for a fair presentation of our financial position and operating results for the interim periods presented. Operating results for the three and nine months ended September 30, 2018 are not necessarily indicative of the results that may be expected for the year ending December 31, 2018 or any interim period.

These financial statements should be read in conjunction with our audited financial statements and notes thereto for the year ended December 31, 2017, included in the Company’s Annual Report on Form 10-K for the year ended December 31, 2017, as filed with the Securities and Exchange Commission.

(2) Description of Business

Nanophase is a leader in advanced materials technologies, with its primary strategic focus being in developing and providing engineered solutions for various applications of micromaterials (“nano” and “non-nano” in scale) for use in protecting human skin from the harmful and damaging effects of the sun. We also produce a variety of materials for use in diverse markets other than those using our materials as active ingredients for sun protection. These other markets include: industrial coatings applications, abrasion-resistant additives, medical diagnostics, and a variety of surface finishing (polishing) applications, including optics. We have expanded our offerings beyond active ingredients to include targeted full formulations of skin care products, marketed and sold by our wholly-owned subsidiary, Solésence®, LLC.

We target markets in which we believe practical solutions may be found using our products. We work closely with current and potential customers in these target markets to identify their material and performance requirements and market our advanced materials to various end-use applications manufacturers, and our Solésence® solutions to cosmetics and skin care brands. Recently developed technologies have made certain new products possible and opened potential new markets. During 2015 we were granted a patent on a new type of particle surface treatment (coating), which became the cornerstone of our new product development in personal care, with first revenue recognized during 2016. In addition, through the creation of our Solésence®, LLC subsidiary, we utilize this particle surface treatment to manufacture and sell fully developed solutions to targeted customers in the cosmetics and skin care industry, in addition to the additives we have traditionally sold in the personal care area.

Although our primary strategic focus has been the North American market, we currently sell material to customers overseas and have been working to expand our reach within foreign markets. The Company was incorporated in Illinois on November 25, 1989 and became a Delaware corporation during November 1997. Our common stock trades on the OTCQB marketplace under the symbol NANX.

While product sales comprise the majority of our revenue, we also recognize revenue from other sources from time to time. These activities are not expected to drive the long-term growth of the business. For this reason, we classify such revenue as “other revenue” in our Statements of Operations, as it does not represent revenue directly from our materials or fully formulated products.

(3) Revenues

On January 1, 2018, we adopted Accounting Standards Updates (“ASU”) 2014-09 and 2015-14, *Revenue from Contract with Customers (Topic 606)*, using the modified retrospective method applied to those contracts that were not **completed** as of January 1, 2018. Results for reporting periods beginning after January 1, 2018 are presented under Topic 606, while prior period amounts are not adjusted and continue to be reported in accordance with our historical accounting under the Financial Accounting Standards Board (“FASB”) Accounting Standards Codification (“ASC”) Topic 605. Based on our contract evaluation, we determined that there was no need to record any changes to our opening retained earnings due to the impact of our adoption of Topic 606. The adoption of Topic 606 did not have a material impact on our consolidated condensed financial statements.

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Revenues are recognized at a point in time, typically when control of the promised goods is transferred to customers, in an amount that reflects the consideration we expect to receive in exchange for those goods.

We generally expense sales commissions when incurred because the amortization period would have been one year or less. These costs are recorded within selling, general and administrative expenses. Customers' deposits, deferred revenue and other receipts are deferred and recognized when the revenue is realized and earned. Cash payments to customers are classified as reductions of revenue in our statements of operations.

We do not disclose the value of the unsatisfied performance obligations for contracts with an original expected length of one year or less or contracts for which we recognize revenue that we have the right to invoice for goods completed.

(4) Earnings (Loss) Per Share

Earnings (Loss) Per Share is computed using the Treasury Stock Method. Options to purchase approximately 1,119,000 and 820,000 shares of common stock that were outstanding as of September 30, 2018 for the three and nine months ended September 30, 2018, respectively, were not included in the computation of diluted earnings (loss) per share, as the impact of such shares would be anti-dilutive. Options to purchase approximately 750,000 and 796,000 shares of common stock that were outstanding as of September 30, 2017 were not included in the computation of loss per share for the three and nine months ended September 30, 2017, respectively, as the impact of such shares would be anti-dilutive.

(5) Financial Instruments

We follow FASB ASC Accounting Standards Codification ("ASC") Topic 820, *Fair Value Measurements and Disclosures*, which defines fair value, establishes a framework for measuring fair value, and expands disclosures about fair value measurements. The fair value framework requires the categorization of assets and liabilities into three levels based upon the assumptions (inputs) used to price the assets or liabilities. Level 1 provides the most reliable measure of fair value, whereas Level 3 generally requires significant management judgment.

Our financial instruments include cash and cash equivalents, accounts receivable, accounts payable and accrued expenses, along with a promissory note with no related borrowings, any borrowings on the LB&T working capital line of credit, each described in Note 6. Subsequent to September 30, 2018, the Company has secured a term loan and a revolving loan, each described in Note 6. The fair values of all financial instruments were not materially different from their carrying values. There were no financial assets or liabilities adjusted to fair value on September 30, 2018 or December 31, 2017.

(6) Notes and Lines of Credit

During July 2014, we entered into a bank-issued letter of credit and related promissory note for up to $30 in borrowings to support our obligations under our facility lease agreement. No borrowings have been incurred under this promissory note. Should any borrowings occur in the future, the interest rate would be the prime rate plus 1%, with the bank having the right to “set off” or apply unpaid balances against our checking account if we fail to meet our obligations under any borrowings under the note. It is our intention to renew this note annually, for as long as we need to pursuant to the terms of our facility lease agreement. Because there were no amounts outstanding at any time during 2018 or 2017, we have recorded no related liability on our balance sheet.

During March 2015, we entered into a Business Loan Agreement (the “Line of Credit Agreement”) with Libertyville Bank and Trust Company, a Wintrust Community Bank (“LB&T”), our primary bank. This Line of Credit Agreement was subsequently amended on April 13, 2015 and was extended on each of March 4, 2016 and February 14, 2017. Under the Line of Credit Agreement, as amended, LB&T provided a maximum of $300 or 75% of our eligible accounts receivable, whichever was less, of revolving credit, collateralized by a senior priority lien on our accounts receivable, inventory, equipment, general intangibles and fixtures. Interest on any borrowings was the prime rate at the time plus 1%. Availability to draw on the line required us to have at least $1 million in cash, including any amounts borrowed, at LB&T on the date of any advance. Advances could only occur at the beginning or end of a fiscal quarter and had to be repaid in full within five days of the advance. Borrowings on this line were $300 on December 31, 2017. These borrowings were repaid in January 2018. The Line of Credit Agreement expired on March 4, 2018.

On March 26, 2018, we executed a new Business Loan Agreement (the “New Line of Credit Agreement”), dated as of March 4, 2018, with LB&T, which replaces the Line of Credit Agreement with LB&T that expired on March 4, 2018. Under the New Line of Credit Agreement, LB&T will provide a maximum of (i) $500 or (ii) two times the sum of (a) 75% our eligible accounts receivables and (b) our cash deposited with LB&T, whichever is less, of revolving credit to us, collateralized by a senior priority lien on our accounts receivables, inventory, equipment, general intangibles and fixtures. Interest is payable monthly on any advances at a floating interest rate of the prime rate at the time plus 1%. We must have $1 million in cash, inclusive of the borrowed amount, at LB&T on the date of any advance. Advances may only occur at the beginning or end of a fiscal quarter and must be repaid in full within five business days of the advance. The New Line of Credit Agreement expires in March 2019. While the New Line of Credit Agreement is in effect, we cannot, among other things, engage in any business activities substantially different than those in which we are presently engaged, and there are limitations imposed on our ability to, among other things, incur additional indebtedness for borrowed money, including capital leases, sell, transfer, mortgage, assign, pledge, lease or grant a security interest in or encumber any of our assets, sell with recourse any of our accounts other than to LB&T, cease operations, merge, transfer, acquire or consolidate with any other entity, change our name, dissolve or transfer or sell collateral outside the ordinary course of business, pay any cash dividends, loan, invest in or advance money or assets to any other person or entity, purchase, create or acquire any interest in any other entity, or incur any obligation as a surety or guarantor other than in the ordinary course of business, in each case without LB&T’s prior written consent. We borrowed $500 on this line on September 28, 2018 and repaid it on October 1st, 2018. The amount outstanding on the loan was $300 on December 31, 2017 which was paid in full on January 9, 2018.

On November 19, 2018, we entered into a Business Loan Agreement (the “Master Agreement”) with Beachcorp, LLC. The Master Agreement relates to two loan facilities, each evidenced by a separate promissory note dated as of November 16, 2018: a term loan to the Company of up to $500 to be disbursed in a single advance (the “Term Loan”) with a fixed annual interest rate of 8.25%, payable quarterly, accruing from the date of such advance and with principal due on December 31, 2020; and an asset-based revolving loan facility for the Company of up to $2,000 (the “Revolver Facility”), with floating interest accruing at the prime rate plus 3% (8.25% minimum) per year, with a borrowing base consisting of qualified accounts receivable of the Company, and with all principal and accrued interest due March 31, 2020. The Term Loan and Revolver Facility are secured by all the unencumbered assets of the Company and subordinated to LB&T’s secured interest under the New Line of Credit Agreement. The Master Agreement substantially restricts the Company’s ability to incur additional indebtedness during the terms of both the Term Loan and the Revolver Facility. As of the date of this filing, there were no amounts borrowed on either of the loans.

(7) Inventories

Inventories consist of the following:

	September 30, 2018	**December 31, 2017**
Raw materials	$ 1,086	$ 543

Finished goods	1,026	863
	2,112	1,406
Allowance for excess inventory quantities	(21)	(21)
	$ 2,091	$ 1,385

During the three months ended March 31, 2018, $246 was reclassified from Prepaid Expenses to Raw Materials. For comparison purposes, $246 has been reclassified from Prepaid Expenses to Raw Materials as of December 31, 2017 in the table above. Our balance sheet as of December 31, 2017 has also been updated to reflect this reclassification.

(8) Share-Based Compensation

We follow FASB ASC Topic 718, *Compensation – Stock Compensation*, in which compensation expense is recognized only for share-based payments expected to vest. We recognized compensation expense related to stock options of $58 and $146 for the three and nine months ended September 30, 2018, respectively, compared to $45 and $140 for the three and nine months ended September 30, 2017, respectively.

As of September 30, 2018, there was approximately $449 of total unrecognized compensation cost related to non-vested share-based compensation arrangements granted under our stock option plans. That cost is expected to be recognized over a remaining weighted-average period of 2.2 years.

Stock Options and Stock Grants

During the nine months ended September 30, 2018, 63,999 shares of common stock were issued pursuant to stock option exercises for proceeds of $29,000. During the nine months ended September 30, 2017, 45,334 shares of common stock were issued pursuant to stock option exercises for proceeds of $14,000. During the nine months ended September 30, 2018, 570,500 options were granted compared to the 507,600 stock options were granted during the same period in 2017. During the nine months ended September 30, 2018, 188,504 stock options expired, and 31,601 stock options were forfeited compared to 7,000 stock options expiring and 37,568 forfeited during the same period in 2017. We had 3,428,000 stock options outstanding at a weighted average exercise price of $0.67 on September 30, 2018, compared to 3,141,000 stock options outstanding at a weighted average exercise price of $0.79 on December 31, 2017.

The following table illustrates the various assumptions used to calculate the Black-Scholes option pricing model for stock options granted during the periods presented:

For the nine months ended	**September 30, 2018**	**September 30, 2017**
Weighted-average risk-free interest rates:	2.9%	2.1%
Dividend yield:	—	—
Weighted-average expected life of the option:	7 years	7 years
Weighted-average expected stock price volatility:	94%	94%
Weighted-average fair value of the options granted:	$0.64	$0.55

As of September 30, 2018, we did not have any unvested restricted stock or performance shares outstanding. No stock options were granted in the three-month periods end September 30, 2018 and 2017.

(9) Significant Customers and Contingencies

Revenue from our three largest customers constituted approximately 74%, 12% and 4%, respectively, of our total revenue for the three months ended September 30, 2018, and approximately 74%, 8% and 4%, respectively, of our total revenue for the nine months ended September 30, 2018. Amounts included in accounts receivable on September 30, 2018 relating to these three customers were approximately $1,170, $388 and $149, respectively. Revenue from these three customers constituted approximately 58%, 0% and 8%, respectively, of our total revenue for the three months ended September 30, 2017, and approximately 67%, 0%, and 7% of our total revenue for the nine months ended September 30, 2017. Amounts included in accounts receivable on September 30, 2017 relating to these three customers were approximately $1,196, $0 and $174 respectively. The loss of one of these significant customers, a significant decrease in revenue from one or more of these customers, or the failure to attract new customers could have a material adverse effect on our business, results of operations and financial condition.

We currently have exclusive supply agreements with BASF Corporation ("BASF"), our largest customer, that have contingencies outlined which could potentially result in the license of technology and/or the sale of production equipment from the Company to the customer intended to provide capacity sufficient to meet the customer's production needs. This outcome may occur if we fail to meet certain performance requirements, certain other obligations and/or certain financial condition covenants. The financial condition covenants in one of our supply agreements with BASF "trigger" a technology transfer right (license and equipment sale at BASF's option) in the event (a) that earnings for the twelve-month period ending with our most recently published quarterly financial statements are less than zero and our cash, cash equivalents and certain investments are less than $1 million, or (b) of an acceleration of any debt maturity having a principal amount of more than $10 million. Our supply agreements with BASF also "trigger" a technology transfer right in the event of our insolvency, as further defined within the agreements. In the event of an equipment sale, upon incurring a triggering event, the equipment would be sold to the customer at either 115% of the equipment's net book value or the greater of 30% of the original book value of such equipment, and any associated upgrades to it, or 115% of the equipment's net book value, depending on the equipment and related products.

We believe that we have sufficient cash and credit availability (See Liquidity and Capital Resources in Management's Discussion and Analysis in Part I, Item 2 of this Form 10-Q for a further discussion, as well as the description of our loan and credit agreements described in Note 6) to operate our business during the remainder of 2018. If a triggering event were to occur and BASF elected to proceed with the license and related equipment sale mentioned above, we would receive royalty payments from this customer for products sold using our technology; however, we would lose both significant revenue and the ability to generate significant revenue to replace that which was lost in the near term. Replacement of necessary equipment that could be purchased and removed by the customer pursuant to this triggering event could take in excess of twelve months. Any additional capital outlays required to rebuild capacity would probably be greater than the proceeds from the purchase of the assets as dictated by our agreement with the customer. Similar consequences would occur if we were determined to have materially breached certain other provisions of the supply agreements with BASF. Any such event would also likely result in the loss of many of our key staff and line employees due to economic realities. We believe that our employees are a critical component of our success and it could be difficult to replace them quickly. Upon the occurrence of any such event, we might not be able to hire and retain skilled employees given the stigma relating to such an event and its impact on us. Finally, any shortfall in capital needed to operate the business as management intends, including with respect to avoiding this triggering event as described above, may result in a curtailment of certain activities or anticipated investments.

We expect to expend resources on research, development and product testing, and in expanding current capacity or capability for new business. In addition, we may incur significant costs in preparing, filing, prosecuting, maintaining and enforcing our patents and other proprietary rights. We may need additional financing if we were to lose an existing customer or suffer a significant decrease in revenue from one or more of our customers or because of currently unknown capital requirements, new regulatory requirements or the need to meet the cash requirements discussed above to avoid a triggering event under our BASF agreement. Given our expected growth in our Solésence® business, we may also have temporary working capital demands that we cannot fund with existing capital, while remaining in compliance with the covenants included in our BASF agreement described above. If necessary, we may seek funding through public or private financing and through contracts with governmental entities or other companies. Additional financing may not be available on acceptable terms or at all, and any such additional financing could be dilutive to our shareholders. If we are unable to obtain adequate funds, we may be required to delay, scale-back or eliminate some of our manufacturing and marketing operations or we may need to obtain funds through arrangements on less favorable terms. Such circumstances could raise doubt as to our ability to continue as a going concern. If we obtain funding on unfavorable terms, we may be required to relinquish rights to some of our intellectual property.

(10) Business Segmentation and Geographical Distribution

Revenue from international sources approximated $152 and $335 for the three and nine months ended September 30, 2018, respectively, compared to $276 and $956 for the three and nine months ended September 30, 2017, respectively. All this revenue was product revenue.

Our operations comprise a single business segment and all our long-lived assets are located within the United States.

(11) New Accounting Pronouncements

During February 2016, the FASB issued ASU No. 2016-02 (“ASU 2016-02”), *Leases (Topic 842)*. This standard requires the recognition of assets and liabilities arising from lease transactions on the balance sheet and the disclosure of key information about leasing arrangements. Accordingly, a lessee will recognize a lease asset for its right to use the underlying asset and a lease liability for the corresponding lease obligation. Both the asset and liability will initially be measured at the present value of the future minimum lease payments over the lease term. Subsequent measurement, including the presentation of expenses and cash flows, will depend on the classification of the lease as either a finance or an operating lease. Initial costs directly attributable to negotiating and arranging the lease will be included in the asset. For leases with a term of 12 months or less, a lessee can make an accounting policy election by class of underlying asset to not recognize an asset and corresponding liability. Lessees will also be required to provide additional qualitative and quantitative disclosures regarding the amount, timing and uncertainty of cash flows arising from leases. These disclosures are intended to supplement the amounts recorded in the financial statements and provide additional information about the nature of an organization’s leasing activities. The amendments in this standard are effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2018, which is our first quarter of 2019, with early adoption permitted. We review new accounting standards as issued. We are in the process of evaluating the impact this standard will have on our financial statements.

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

Overview

Nanophase is a leader in advanced materials technologies, with its primary strategic focus being in developing and providing engineered solutions for various applications of micromaterials ("nano" and "non-nano" in scale) for use in protecting human skin from the harmful and damaging effects of the sun. We also produce a variety of materials for use in diverse markets other than those using our materials as active ingredients for sun protection. These other markets include: industrial coatings applications, abrasion-resistant additives, medical diagnostics, and a variety of surface finishing (polishing) applications, including optics. Through our increasing focus on skin care ingredients, and enabled by our own patented and proprietary technologies, we have expanded our offerings beyond active ingredients to include targeted full formulations of skin care products, marketed and sold by our wholly-owned subsidiary, Solésence®, LLC.

We target markets in which we believe practical solutions may be found using our products. We work closely with current and potential customers in these target markets to identify their material and performance requirements and market our materials to various end-use applications manufacturers, and our Solésence® solutions to cosmetics and skin care brands. Recently developed technologies have made certain new products possible and opened potential new markets. For example, we have applied our expertise at producing precisely defined nanomaterials to now create and sell larger, "non-nano" material products. Our focus is on customer need where we believe we have an advantage, as opposed to finding uses for one particular technology. We expect growth in end-user (manufacturing customers, including customers of our customers) adoption in 2018 and beyond. Our initiatives in targeted market areas are progressing at differing rates of speed, but we have been broadly moving through testing and development cycles, and in a number of cases believe we are approaching first revenue or next stage revenue with particular customers in the sun care-related applications referenced above. For example, during 2015 we were granted a patent on a new type of particle surface treatment (coating), which became the cornerstone of our new product development in personal care, with first revenue recognized during 2016. In addition, through the creation of our Solésence®, LLC subsidiary, we use this particle surface treatment to manufacture and sell fully developed solutions to targeted customers in the cosmetics and skin care industry, in addition to the additives we have traditionally sold in to the sun care area. During the second quarter of 2018, Solésence® supported the launch of three fully developed products for its customers. We are currently focusing the greatest part of our business development efforts on building and expanding our Solésence® brand and product suite. We believe that successful introduction of our finished skin care products and materials with manufacturers may lead to follow-on orders for other finished products and materials in these applications. We expect that we will both work more deeply with current customers and attract additional customers, which should help us achieve growth in these markets in 2018 and beyond.

At the same time, we look for opportunities to partner with established entities in order to further our mutual goals. During June 2017, we entered into a series of agreements with Eminess Technologies, Inc. ("ETI"), an entity that is well established in selling materials for surface finishing (polishing) applications. We intend to continue serving this market through supplying materials, while devoting the greatest share of our business- and product-development resources to support our Solésence® brand and expand our suite of sun care-related products. These agreements are intended to accomplish both, by allowing us to maximize existing production assets and technology, while supporting strategic growth in sun care applications. ETI will sell our products, in some cases by making and selling those products themselves under an exclusive license and paying us a royalty, and in other cases through an exclusive supply arrangement with us. ETI purchased equipment from us for $36,000 and paid us a one-time fee of $250,000 for assisting ETI in its development of dispersion technology relevant to polishing solutions.

Results of Operations

Total revenue increased to $4,022,000 for the three months ended September 30, 2018, compared to $2,785,000 for the same period in 2017. Total revenue increased to $11,036,000 for the nine months ended September 30, 2018 from $9,852,000 for same period in 2017. A substantial majority of our revenue for each of the periods was from our largest customers, in particular, sales to our largest customer in personal care and sunscreen applications. Revenue from out top three customers constituted approximately 70%, 12% and 4%, respectively, of our total revenue for the three months ended September 30, 2018, and approximately 74%, 8% and 4%, respectively, of our total revenue for the nine months ended September 30, 2018. Revenue from these three customers constituted approximately 58%, 0% and 3%, respectively, of our total revenue for the three months ended September 30, 2017, and approximately 66%, 0%, and 3% of our total revenue for the nine months ended September 30, 2017. Product revenue, the primary component of our total revenue, increased to $3,998,000 for the three months ended September 30, 2018 compared to $2,524,000 for the three months ended September 30, 2017. Product revenue increased to $10,908,000 for the nine months ended September 30, 2018, compared to $9,525,000 for the same period in 2017. The increase in total revenue and in product revenue for the three months ended September 30, 2018, relative to the three months ended September 30, 2017, reflects the shutdown in July 2017 to install a new product coating blender, which adversely impacted revenue for the three months ended September 30, 2017. Because the shutdown was substantially mitigated by shifting fulfillment of customer orders to before and after the shutdown, however, it had a lesser impact on revenue for the nine months ended September 30, 2017, so that the increase in revenue for the nine months ended September 30, 2018, relative to the nine months ended September 30, 2017, results primarily from our Solésence® products launches in 2018, which represented approximately 9% of our year to date product revenue, and an increase in the demand for minerals-based sunscreen products.

Other revenue decreased to $24,000 for the three months ended September 30, 2018, compared to $261,000 for the same period in 2017. Other revenue decreased to $128,000 for the nine months ended September 30, 2018, compared to $327,000 for the same period in 2017. Other revenue is comprised primarily of shipping costs paid by customers and includes fee-based development projects completed during the first half of 2018. This also applies to the same period in 2017 when we received an intellectual property transfer fee of $250,000 from a customer.

Cost of revenue generally includes costs associated with commercial production and customer development arrangements. Cost of revenue increased to $2,965,000 for the three months ended September 30, 2018, compared to $2,200,000 for the same period in 2017. Cost of revenue increased to $8,164,000 for the first nine months of 2018, compared to $6,862,000 for the same period in 2017. The increases in cost of revenue in 2018 were primarily driven by higher wages, price inflation on materials including zinc metal, and manufacturing inefficiencies related to Solésence® product launches. While we typically pass through costs to our customers, we cannot always pass through 100% of pricing increases on raw materials, and even with pass throughs, our gross margin percentage is negatively impacted by higher material costs. We expect to continue new materials development and finished cosmetics products, primarily using our material synthesis and dispersion technologies for supplying and developing new active ingredients for sun care, as well as applying our expanding formulations expertise in developing fully formulated Solésence® products during 2018 and beyond. At current revenue levels we have generated a positive gross margin, though margins have been impeded by not having enough revenue to efficiently absorb manufacturing overhead that is required to work with current customers and expected future customers. In order to support future revenue projections, we believe we need a $200,000 to $300,000 capital equipment investment before the end of the year. The extent to which margins may grow, as a percentage of total revenue, will be dependent upon revenue mix, revenue volume, our ability to manage costs and pass commodity market-driven raw materials increases on to customers, and the speed and efficiency with which we are able to scale up production for our Solésence® products. We expect that product revenue volume increases will result in our fixed manufacturing costs being more efficiently absorbed, which should lead to increased margins. We expect to continue to focus on reducing controllable variable product manufacturing costs, with potential variability related to the commodity metals markets, but may or may not realize absolute dollar gross margin growth through 2018 and beyond, dependent upon the factors discussed above.

Research and development expense, which includes all expenses relating to the technology and advanced engineering groups, primarily consists of costs associated with the development or acquisition of new product applications and finished product formulations for our Solésence® business. As an example, we have been, and continue to be, engaged in product development work for our new fully-formulated finished skincare products marketed through Solésence®. Much of this work has led to several new products and additional potential new products. We are also engaged in a series of in-vitro, ex-vivo, and in-vivo tests to determine the productivity of our Solésence® products, as well as to provide our customers with support for consumer inquiries.

Research and development expense decreased to $416,000 and increased to $1,513,000 for the three and nine months ended September 30, 2018, respectively, compared to $494,000 and $1,354,000, respectively, for the same periods in 2017. The primary reasons for these increases were increased wages due to personnel added during 2018 and increased outside product testing and evaluation costs related to our Solésence® products. We expect quarterly research and development expense to decline during the remainder of 2018, as we expect the initial effort required to launch the Solésence® solutions to lessen, particularly with respect to external testing and validation costs.

Selling, general and administrative expense increased to $765,000 and $2,299,000 for the three and nine months ended September 30, 2018, respectively, compared to $725,000 and $2,185,000, respectively, for the same periods in 2017. The increased costs were associated with launching the Solésence® brand. We expect selling, general and administrative expense to remain at current levels during the remainder of 2018.

Inflation

We believe inflation has not had a material effect on our operations or financial position. However, supplier price increases and wage and benefit inflation, both of which represent a significant component of our costs of operations, may have a material effect on our operations and financial position in 2018 and beyond if we are unable to pass through any applicable increases under our present contracts or through to our markets in general.

Liquidity and Capital Resources

Our cash and cash equivalents amounted to $1,034,000 on September 30, 2018, compared to $1,955,000 on December 31, 2017. The net cash used in our operating activities was $921,000 for the nine months ended September 30, 2018, compared to $866,000 for the same period in 2017. The net use of cash during both periods was driven primarily by a significant increase in unabsorbed manufacturing costs and an increase in accounts receivable and inventory at the end of the respective period. Net cash used in investing activities was $115,000 during the nine months ended September 30, 2018, compared to net cash provided by investing activities of $15,000 for the nine months ended September 30, 2017. We paid $114,000 for capital lease obligations during the nine months ended September 30, 2018 compared to $122,000 in the same period in 2017. Net cash provided by financing activities was $115,000 during the nine months ended September 31, 2018, compared to net cash provided by financing activities of $142,000 for the nine months ended September 30, 2017. We paid the $300,000 outstanding balance under our line of credit as of December 31, 2017 on January 9, 2018, the $200,000 outstanding balance as of March 31, 2018 on April 4, 2018, the $500,000 outstanding balance as of June 30, 2018 on July 2, 2018 and the $500,000 outstanding balance as of September 30, 2018 on October 1st, 2018. Proceeds for capital leases for the nine months ended September 30, 2018 and 2017 were $248,000 and $307,000 respectively.

On November 19, 2018, we entered into a Business Loan Agreement (the “Master Agreement”) with Beachcorp, LLC. The Master Agreement relates to two loan facilities, each evidenced by a separate promissory note dated as of November 19, 2018: a term loan to the Company of up to $500,000 to be disbursed in a single advance (the “Term Loan”) with a fixed annual interest rate of 8.25%, payable quarterly, accruing from the date of such advance and with principal due on December 31, 2020; and an asset-based revolving loan facility for the Company of up to $2,000,000 (the “Revolver Facility”), with floating interest at prime rate plus 3% (8.25% minimum) per year, with a borrowing base consisting of qualified accounts receivable of the Company, and with all principal and accrued interest due March 31, 2020. The Term Loan and Revolver Facility are secured by all the unencumbered assets of the Company and subordinated to LB&T’s secured interest under the New Line of Credit Agreement. The Master Agreement substantially restricts the Company’s ability to incur additional indebtedness during the terms of both the Term Loan and the Revolver Facility. Management expects to use the funds from the Term Loan and the Revolver Facility to fund capital equipment and working capital. There are no covenants associated with this Business Loan Agreement.

Our supply agreements with our largest customer, BASF, contain certain financial covenants which could potentially impact our liquidity. The most restrictive financial covenants under these agreements require that we maintain a minimum of $1 million in cash, cash equivalents and certain investments, and that we not have the acceleration of any debt maturity having a principal amount of more than $10 million, in order to avoid triggering the customer’s potential right to transfer certain technology and equipment to that customer at a contractually-defined price. We had approximately $1,034,000 in cash on September 30, 2018, with $500,000 in borrowings under our line of credit. This line of credit was entered into during March 2018 and it will expire in March 2019. This supply agreement and its covenants are more fully described in Note 9, and our current credit availability is more fully described in Note 6, to our Financial Statements in Part I, Item 1 of this Form 10-Q.

We believe that cash from operations, available credit and cash on hand will be adequate to fund our operations through the remainder of 2018. Given our expected growth in our Solésence® business, we are monitoring the temporary working capital demands that this could create, with timing being the most critical variable. Our actual future capital requirements in 2018 and beyond will depend on many factors, including customer acceptance of our current and potential advanced materials, applications and products, continued progress in research and development activities and product testing programs, the magnitude of these activities and programs, and the costs necessary to increase and expand our manufacturing capabilities and to market and sell our advanced materials, applications and products. Other important issues that will drive future capital requirements will be the development of new markets and new customers as well as the potential for significant unplanned growth with existing customers. Depending on the success of certain projects, we expect that capital spending relating to currently known capital needs for the remainder of 2018 will be between $200,000 and $300,000, and we could enter into one or more financing leases to finance these acquisitions, subject to the provisions of our various loan agreements. If those projects are delayed or ultimately prove unsuccessful, or if we fail to obtain financing on terms acceptable to us, we would expect our capital spending to be below the lower end of that range. Similarly, substantial success in business development projects may cause the actual capital investment for the remainder of 2018 to exceed the top of this range.

Should events arise that make it appropriate for us to seek additional financing, such additional financing may not be available on acceptable terms or even at all, and any such additional financing could be dilutive to our stockholders. Such financing could be necessitated by such things as the loss of one or more existing customers; a significant decrease in revenue from one or more of our customers; temporary working capital demands resulting from our expected growth in our Solésence® business that we cannot fund with existing capital; currently unknown capital requirements in light of the factors described above; new regulatory requirements that are outside our control; the need to meet previously discussed cash requirements to avoid a triggering event under our BASF agreement, or various other circumstances coming to pass that we currently do not anticipate. The failure to have access to sufficient capital to fund our business plans may result in a curtailment or other change in those plans, and under such circumstances, may raise doubt as to our ability to continue as a going concern.

On September 30, 2018, we had a net operating loss carryforward of approximately $97 million for income tax purposes. Because we may have experienced "ownership changes" within the meaning of the U.S. Internal Revenue Code in connection with our various prior equity offerings, future utilization of this carryforward may be subject to certain limitations as defined by the Internal Revenue Code. If not utilized, the carryforward will expire at various dates between January 1, 2019 and December 31, 2037. As a result of the annual limitation and uncertainty as to the amount of future taxable income that will be earned prior to the expiration of the carryforward, we have concluded that it is likely that a majority of this carryforward will expire before ultimately becoming available to reduce income tax liabilities. Changes in Illinois state law that began in 2011 will impact net loss carryforward duration and utilization on the state tax level.

Off–Balance Sheet Arrangements

We have not created, and are not party to, any special-purpose or off-balance sheet entities for the purposes of raising capital, incurring debt or operating our business. We do not have any off-balance sheet arrangements or relationships with entities that are not consolidated into our financial statements that are reasonably likely to materially affect our liquidity or the availability of capital resources.

As more fully described in Note 6 to our Financial Statements, in Part I, Item I of this Form 10-Q, during 2014 we entered into a letter of credit and promissory note for up to $30,000 supporting our obligations under our facility lease agreement. No borrowings have been incurred under this promissory note.

Safe Harbor Provision

We want to provide investors with more meaningful and useful information. As a result, this Quarterly Report on Form 10-Q contains and incorporates by reference certain "forward-looking statements", as defined in Section 21E of the Securities Exchange Act of 1934, as amended (the “Exchange Act”). These statements reflect our current expectations of the future results of our operations, performance and achievements. Forward-looking statements are covered under the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. We have tried, wherever possible, to identify these statements by using words such as "anticipates", "believes", "estimates", "expects", "plans", "intends" and similar expressions. These statements reflect management's current beliefs and are based on information now available to it. Accordingly, these statements are subject to certain risks, uncertainties and contingencies that could cause our actual results, performance or achievements in 2018 and beyond to differ materially from those expressed in, or implied by, such statements. These risks, uncertainties and factors include, without limitation: our ability to be consistently profitable despite the losses we have incurred since our incorporation; a decision by a customer to cancel a purchase order or supply agreement in light of our dependence on a limited number of key customers; the terms of our supply agreements with BASF, which could trigger a requirement to transfer technology and/or sell equipment to that customer; our potential inability to obtain working capital when needed on acceptable terms or at all; our ability to obtain materials at costs we can pass through to our customers, including Rare Earth elements, specifically cerium oxide, as well as high purity zinc; uncertain demand for, and acceptance of, our nanocrystalline materials and Solésence® products; our manufacturing capacity and product mix flexibility in light of customer demand; our limited marketing experience, including with our suite of Solésence® products; changes in development and distribution relationships; the impact of competitive products and technologies; our dependence on patents and protection of proprietary information; the resolution of litigation or other legal proceedings in which we may become involved; our ability to maintain an appropriate electronic trading venue for our securities; and the impact of any potential new governmental regulations that could be difficult to respond to or costly to comply with. In addition, our forward-looking statements could be affected by general industry and market conditions and growth rates. Readers of this Quarterly Report on Form 10-Q should not place undue reliance on any forward-looking statements. Except as required by federal securities laws, we undertake no obligation to update or revise these forward-looking statements to reflect new events or uncertainties.

Item 3. Quantitative and Qualitative Disclosures About Market Risk

Not required for a smaller reporting company.

Item 4. Controls and Procedures

Disclosure controls

We are responsible for establishing and maintaining disclosure controls and procedures that are designed to ensure that information required to be disclosed by us in the reports filed by us under the Exchange Act is: (a) recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms; and (b) accumulated and communicated to our management, including our principal executive and principal financial officers, to allow timely decisions regarding required disclosures. It should be noted that in designing and evaluating our disclosure controls and procedures, we recognize that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives, and that our management necessarily was required to apply its judgment regarding the design of our disclosure controls and procedures. As of the end of the period covered by this report, we conducted an evaluation, under the supervision (and with the participation) of our management, including our Chief Executive Officer and Chief Financial Officer, of the effectiveness of the design and operation of our disclosure controls and procedures pursuant to Rules 13a-15(e) and 15d-15(e) of the Exchange Act. Based on that evaluation, our Chief Executive Officer and Chief Financial Officer concluded that our disclosure controls and procedures were effective at reaching that level of reasonable assurance.

Internal control over financial reporting

The Company's management, including the CEO and CFO, confirm that there was no change in the Company's internal control over financial reporting during the period covered by this report that has materially affected, or is reasonably likely to materially affect, the Company's internal control over financial reporting.

PART II – OTHER INFORMATION

Item 1. Legal Proceedings

We are not a party to any pending legal proceedings or claims that we believe will result in a material adverse effect on our business, financial condition, or operating results.

Item 1A. Risk Factors

In addition to the information set forth in this Quarterly Report on Form 10-Q and before deciding to invest in, or retain, shares of our common stock, you also should carefully review and consider the information contained in our other reports and periodic filings that we make with the Securities and Exchange Commission, including, without limitation, the information contained under the caption Part I, Item 1A "Risk Factors" in our Annual Report on Form 10-K for the year ended December 31, 2017. Those risk factors could materially affect our business, financial condition and results of operations. Additional risks and uncertainties that we do not currently know about, we currently believe are immaterial or we have not predicted may also harm our business operations or adversely affect us. If any of these risks or uncertainties occur, our business, financial condition, results of operations, cash flows or stock price could be materially adversely affected. There have been no material changes from the risk factors previously disclosed in our Annual Report on Form 10-K for the year ended December 31, 2017.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds

None.

Item 3. Defaults Upon Senior Securities

None.

Item 4. Mine Safety Disclosures

Not applicable.

Item 5. Other Information

Form 8-K Item 1.01 Entry into a Material Definitive Agreement.

On November 19, 2018, we entered into a Business Loan Agreement (the “Master Agreement”) with Beachcorp, LLC. Beachcorp, LLC is a newly formed affiliate of Bradford T. Whitmore. As of [March 14,] 2018, Mr. Whitmore, together with his affiliates, Grace Brothers, Ltd. and Grace Investments, Ltd., beneficially owned approximately [47%] of the outstanding shares of our common stock. In addition, R. Janet Whitmore, one of our directors since 2003 and a stockholder, is the sister of Mr. Whitmore.

The Master Agreement relates to two loan facilities: a term loan to the Company of up to $500,000 to be disbursed in a single advance (the “Term Loan”) with a fixed annual interest rate of 8.25%, payable quarterly, accruing from the date of such advance and with principal due on December 31, 2020; and an asset-based revolving loan facility for the Company of up to $2,000,000 (the “Revolver Facility”), with floating interest at prime rate plus 3% (8.25% minimum) per year, with a borrowing base consisting of qualified accounts receivable of the Company, and with all principal and accrued interest due March 31, 2020. The Term Loan and Revolver Facility are secured by all the unencumbered assets of the Company and subordinated to LB&T’s secured interest under the New Line of Credit Agreement. The Master Agreement substantially restricts the Company’s ability to incur additional indebtedness during the terms of both the Term Loan and the Revolver Facility.

On November 19, 2018 and in order to evidence the Term Loan pursuant to the Master Agreement, the Company made a promissory note in the principal amount of up to $500,000 payable to the order of Beachcorp, LLC, of which the terms are consistent with the Master Agreement.

On November 19, 2018 and in order to evidence the Revolver Facility pursuant to the Master Agreement, the Company made a promissory note in the principal amount of up to $2,000,000 payable to the order of Beachcorp, LLC, of which the terms are consistent with the Master Agreement.

Form 8-K Item 2.03 Creation of a Direct Financial Obligation.

The foregoing disclosures in this Item 5 under the caption “Form 8-K Item 1.01 Entry into a Material Definitive Agreement” are incorporated by reference. As of the date of this filing, the borrowed amounts under both the Term Loan and the Revolver Facility are zero dollars.

Item 6. Exhibits

EXHIBIT INDEX

Exhibit 10.1	Business Loan Agreement, dated November 19, 2018, between the Company and Beachcorp, LLC.
Exhibit 10.2	Promissory Note, dated November 19, 2018, made by the Company and payable to the order of Beachcorp, LLC to evidence a term loan in the original principal amount of up to $500,000.
Exhibit 10.3	Promissory Note, dated November 19, 2018, made by the Company and payable to the order of Beachcorp, LLC to evidence revolving borrowings in a principal amount of up to $2,000,000.
Exhibit 31.1	Certification of Chief Executive Officer pursuant to Rules 13a-14(a) and 15d-14(a) under the Exchange Act.
Exhibit 31.2	Certification of Chief Financial Officer pursuant to Rules 13a-14(a) and 15d-14(a) under the Exchange Act.
Exhibit 32	Certification of the Chief Executive Officer and Chief Financial Officer pursuant to 18 U.S.C. Section 1350.
Exhibit 101	The following materials from Nanophase Technologies Corporation's Quarterly Report on Form 10-Q for the quarter ended June 30, 2018, formatted in XBRL (Extensible Business Reporting Language): (1) the Balance Sheets, (2) the Statements of Operations, (3) the Statements of Cash Flows, and (4) the Notes to Unaudited Financial Statements.

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.

	NANOPHASE TECHNOLOGIES CORPORATION
Date: November 19, 2018	By: /s/ JESS A. JANKOWSKI Jess A. Jankowski President and Chief Executive Officer
Date: November 19, 2018	By: /s/ JAIME ESCOBAR Jaime Escobar Chief Financial Officer