NANOPHASE TECHNOLOGIES Corp
Form 10-Q
May 15, 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: **March 31, 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 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 during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, 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 May 15, 2018, there were 33,847,793 shares outstanding of common stock, par value $.01, of the registrant.

NANOPHASE TECHNOLOGIES CORPORATION

QUARTER ENDED MARCH 31, 2018

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PART I - FINANCIAL INFORMATION

Item 1. Financial Statements

NANOPHASE TECHNOLOGIES CORPORATION

BALANCE SHEETS

(in thousands except share and per share data)

(Unaudited)

	March 31, 2018	**December 31, 2017**
ASSETS		
Current assets:		
Cash and cash equivalents	$1,190	$ 1,955
Trade accounts receivable, less allowance for doubtful accounts of $5 on March 31, 2018 and December 31, 2017	1,377	1,115
Inventories, net.	1,220	1,385
Prepaid expenses and other current assets	230	169
Total current assets	4,017	4,624
Equipment and leasehold improvements, net	1,577	1,624
Other assets, net	17	18
	$5,611	$ 6,266
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Line of credit	$200	$ 300
Current portion of capital lease obligations	140	143
Accounts payable	1,210	1,038
Accrued expenses	753	543
Total current liabilities	2,303	2,024
Long-term portion of capital lease obligations	377	416
Long-term deferred rent	394	410
Asset retirement obligations	186	184
Total long-term liabilities	957	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; 33,847,793 shares issued and outstanding on March 31, 2018 and December 31, 2017	338	338
Additional paid-in capital	98,606	98,563
Accumulated deficit	(96,593)	(95,669)
Total stockholders’ equity	2,351	3,232
	$5,611	$6,266

See Notes to Financial Statements.

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NANOPHASE TECHNOLOGIES CORPORATION

STATEMENTS OF OPERATIONS

(in thousands except share and per share data)

(Unaudited)

	Three months ended March 31, 2018			2017		
Revenue:						
Product revenue	$	2,867		$	3,466	
Other revenue		31			19	
Total revenue		2,898			3,485	
Operating expense:						
Cost of revenue		2,488			2,281	
Gross profit		410			1,204	
Research and development expense		558			384	
Selling, general and administrative expense		765			764	
(Loss) Income from operations		(913	)		57	
Interest expense		(11	)		(10	)
(Loss) Income before provision for income taxes		(924	)		46	
Provisions for income taxes		—			—	
Net (loss) Income	$	(924	)	$	46	
Net (loss) Income per share – basic and diluted	$	(0.03	)	$	0.00	
Weighted average number of basic and diluted common shares outstanding		33,847,793			31,230,092	

See Notes to Financial Statements.

NANOPHASE TECHNOLOGIES CORPORATION

STATEMENTS OF CASH FLOWS

(in thousands except share and per share data)

(Unaudited)

	Three months ended March 31,	
	2018	2017
Operating activities:		
Net (loss) Income	$(924)	$46
Adjustment to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	85	96
Stock compensation expense	43	48
Changes in assets and liabilities related to operations:		
Trade accounts receivable	(262)	(836)
Inventories	165	32
Prepaid expenses and other assets	(61)	104
Accounts payable	142	267
Accrued expenses	194	85
Net cash used in operating activities	(618)	(158)
Investing activities:		
Proceeds from disposal of equipment	—	30
Acquisition of equipment and leasehold improvements	(5)	(55)
Net cash used in investing activities	(5)	(25)
Financing activities:		
Principal payments on capital leases	(42)	(71)
Proceeds form line of credit	200	—
Payments to the line of credit	(300)	
Proceeds from exercise of stock options	—	2
Net cash used in financing activities	(142)	(69)
Decrease in cash and cash equivalents	(765)	(252)
Cash and cash equivalents at beginning of period	1,955	1,779
Cash and cash equivalents at end of period	$1,190	$1,527
Supplemental cash flow information:		
Interest paid	$11	$10
Supplemental non-cash investing activities:		
Accounts payable incurred for the purchase of equipment and leasehold improvements	$30	$28

Receivable from sale of property and equipment	$—	$70
Proceeds from capital lease	—	175

See Notes to Financial Statements.

NANOPHASE TECHNOLOGIES CORPORATION

NOTES TO FINANCIAL STATEMENTS

(Unaudited)

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

(1) Basis of Presentation

The accompanying unaudited interim financial statements of Nanophase Technologies Corporation (“Nanophase” or the “Company”, including “we”, “our” or “us”) 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 months ended March 31, 2018 are not necessarily indicative of the results that may be expected for the year ending December 31, 2018.

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 an advanced materials and applications developer and commercial manufacturer with an integrated family of materials technologies. We produce engineered nano and “non-nano” materials for use in a variety of diverse markets: personal care including sunscreens as active ingredients and in fully formulated cosmetics of our own design, architectural coatings, industrial coating applications, abrasion-resistant additives, plastics additives, medical diagnostics, energy (including solar control) and a variety of surface finishing technologies (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 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 nanocrystalline materials.

(3) Revenues

On January 1, 2018, the Company 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 which 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 the Company’s historical accounting under Topic 605. Based on the Company’s contract evaluation, the Company determined there was no need to record any changes to the opening retained earnings due to the impact of adoption Topic 606. The adoption of Topic 606 did not have a material impact on the Company’s condensed financial statements.

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 the Company expects to be entitled to in exchange for those goods.

The Company generally expenses 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 the Company’s statement of operations.

The Company does not disclose the value of the unsatisfied performance obligations for contracts with an original expected length of one year or less and contracts for which the Company recognizes revenue which the Company has the right to invoice for goods completed.

(4) Earnings Per Share

Earning(Loss) Per Share is computed using the Treasury Stock Method. Options to purchase approximately 205,000 shares of common stock that were outstanding as of March 31, 2018 were not included in the computation of earnings(loss) per share for the three-month period ended March 31, 2018, as the impact of such shares would be both negligible and anti-dilutive. Options to purchase approximately 862,000 shares of common stock that were outstanding as of March 31, 2017 were not included in the computation of earnings per share for the three-month period ended March 31, 2017, as the impact of such shares would be both negligible and anti-dilutive.

(5) Financial Instruments

We follow the Financial Accounting Standards Board ("FASB") 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 the promissory note with no related borrowings and any borrowings on the working capital line of credit, each described in Note 5. 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 March 31, 2018 or December 31, 2017.

(6) Notes and Line 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 2017 or 2016, we have recorded no related liability on our balance sheet.

We have a Business Loan Agreement (the "Line of Credit Agreement") with Libertyville Bank and Trust Company, a Wintrust Community Bank ("Libertyville"), our primary bank. Under the Line of Credit Agreement, as amended, Libertyville will provide a maximum of $500, or 75% of our eligible accounts receivable, whichever is less, of revolving credit, collateralized by a senior priority lien on our accounts receivable, inventory, equipment, general intangibles and fixtures. Interest on any borrowings would be the prime rate at the time plus 1%. Availability to draw on the line requires us to have at least $1 million in cash, including any amounts borrowed, at Libertyville 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 days of the advance. The Line of Credit Agreement expires in March 2019. We borrowed $200 on March 30, 2018, and repaid it on April 4, 2018. The amount outstanding on the loan was $300 on 12/31/2017.

(7) Inventories

Inventories consist of the following:

	March 31, 2018	December 31, 2017
Raw materials	$677	$ 543
Finished goods	564	863
	1,241	1,406
Allowance for excess inventory quantities	(21)	(21)
	$1,220	$ 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 in the table shown above for the December 31, 2017 balances. The Balance Sheet as of December 31, 2017 has also been updated from Prepaid Expenses to Raw Materials as of December 31, 2017 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 $43 and $48 for each of the three-month periods ended March 31, 2018 and 2017, respectively.

As of March 31, 2018, there was approximately $210 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 1.8 years.

<u>Stock Options and Stock Grants</u>

No stock options were exercised during the three months ended March 31, 2018. During the three months ended March 31, 2017, 4,334 shares of common stock were issued pursuant to stock option exercises for proceeds of $2. During the three months ended March 31, 2018, 36,000 stock options were granted compared to 507,600 stock options granted during the same period in 2017. During the three months ended March 31, 2018, 100,504 stock options expired and no stock options were forfeited compared to 5,068 stock options forfeited and no stock options expiring during the same period in 2017. We had 3,077,000 stock options outstanding at a weighted average exercise price of $0.71 on March 31, 2018, compared to 3,141,000 stock options outstanding at a weighted average exercise price of $0.73 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 three-month periods presented:

	March 31, 2018		**March 31, 2017**	
Weighted-average risk-free interest rates:	2.7	%	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:	$0.36		$0.55	

As of March 31, 2017, we did not have any unvested restricted stock or performance shares outstanding.

(9) Significant Customers and Contingencies

Revenue from three customers constituted approximately 78%, 4% and 4%, respectively, of our total revenue for the three months ended March 31, 2018. Amounts included in accounts receivable on March 31, 2018 relating to these three customers were approximately $1,089, $115 and $47, respectively. Revenue from the top three customers constituted approximately 69%, 7%, and 0% of our total revenue for the three months ended March 31, 2017. Amounts included in accounts receivable on March 31, 2017 relating to these three customers were approximately $588, $129 and $0, 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 Line of Credit Agreement described in Note 5) to operate our business during the remainder of 2018. If a new 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 agreement 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. Given 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.

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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 financing could be dilutive to our stockholders. Such a financing could be necessitated by such things as the loss of one or more significant customers or a significant decline in revenue from those customers, currently unknown capital requirements, new regulatory requirements, the need to meet cash requirements under our BASF agreement to avoid a triggering event, the continuing costs associated with launching Solésence®, or other circumstances not currently anticipated by us. The failure to obtain sufficient capital may impair or curtail our business plans and under such circumstances may raise doubt regarding our ability to continue as a going concern.

(10) Business Segmentation and Geographical Distribution

Revenue from international sources approximated $18 and $347 for the three months ended March 31, 2018 and 2017, respectively. All this revenue was product revenue.

Our operations comprise a single business segment and all of 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. The company reviews new accounting standards as issued. The company is in the process of evaluating the impact this standard will have on the financial statements.

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

Overview

Nanophase is an advanced materials and applications developer and commercial manufacturer with an integrated family of materials technologies. We produce engineered nano and “non-nano” materials for use in a variety of diverse markets: personal care including sunscreens as active ingredients and in fully formulated cosmetics of our own design, architectural coatings, industrial coating applications, abrasion-resistant additives, plastics additives, medical diagnostics, energy (including solar control) and a variety of surface finishing technologies (polishing) applications, including optics. Finally, 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 skills 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 industries 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 the personal care area. During 2015 and 2016 we developed and began to sell solutions in the energy management (particularly solar control) industry. We believe that the products that we have designed for this industry remain valuable to the market, although 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 their 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 while devoting significant assets behind our Solésence® products. These agreements are intended to accomplish both. 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 decreased to $2,898,000 for the three months ended March 31, 2018, compared to $3,485,000 for the same period in 2017. A substantial majority of our revenue for both periods was from our largest customers, in particular, sales to our largest customer in personal care and sunscreen applications. Revenue from our top three customers was approximately 78%, 4% and 4%, respectively, of our total revenue for the three months ended March 31, 2018, compared to 69%, 7% and 0%, respectively, for the same customers during the same period in 2017. Product revenue, the primary component of our total revenue, decreased to $2,867,000 for the three months ended March 31, 2018, compared to $3,466,000 for the same period in 2017. The decrease was primarily due to decreased order flow from several of our larger customers, including our largest customer in personal care and sunscreen applications.

Other revenue increased to $31,000 for the three months ended March 31, 2018, compared to $19,000 for the same period in 2017. Other revenue was comprised primarily of shipping costs paid by customers, and included a one-time fee-based development project completed during the first quarter of 2018.

Cost of revenue generally includes costs associated with commercial production and customer development arrangements. Cost of revenue increased to $2,488,000 for the three months ended March 31, 2018, compared to $2,281,000 for the same period in 2017. The increase in cost of revenue was primarily driven by the higher wages, price inflation on materials and manufacturing inefficiencies related to Solésence® product launches. While we typically pass through costs to our customers, we sometimes cannot 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 nanomaterial development, primarily using our NanoArc® synthesis and dispersion technologies, for targeted applications, new markets, and for our 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. We believe that our current fixed manufacturing cost structure is sufficient to support higher levels of revenue volume. 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 would 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 productiveness of our Solésence® products, as well as to provide our customers with support for a consumer claims set. We are not certain when or if any significant revenue will be generated from the production of the materials described above.

Research and development expense increased to $558,000 for the three months ended March 31, 2018, compared to $384,000 for the same period in 2017. The primary reasons for this increase were increased wages due to personnel added during 2017 and have 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 was flat at $765,000 for the three months ended March 31, 2018, compared to $763,000 for the same period in 2017. Increased costs associated with launching the Solésence® brand were largely offset by the reduction of certain administrative costs including professional service fees. 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 $1,190,000 on March 31, 2018, compared to $1,955,000 on December 31, 2017 and $1,527,000 on March 31, 2017. The net cash used in our operating activities was $618,000 for the three months ended March 31, 2018, compared to $158,000 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 at the end of the period. Net cash used in investing activities decreased to $5,000 during the three months ended March 31, 2018, compared to net cash used in investing activities of $25,000 for the three months ended March 31, 2017. Capital expenditures amounted to $5,000 and $55,000 for the three months ended March 31, 2018 and 2017, respectively. Net cash used in financing activities was $142,000 during the three months ended March 31, 2018, compared to $69,000 for the three months ended March 31, 2017. We paid $42,000 for capital lease obligations during three months ended March 31, 2018 compared to $71,000 in the same period in 2017. We paid the outstanding balance on December 31, 2017 of $300,000 on January 9, 2018 and had borrowings under our line of credit of $200,000 on March 30, 2018, which was subsequently repaid on April 4, 2018. We entered into no new capital leases during the first three months of 2018. We entered into a new capital (financing) lease for $175,000 during the first quarter of 2017, which will be repaid over five years pursuant to its terms.

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 $1.2 million in cash on March 31, 2018, with $200,000 borrowings on our Line of Credit. During March 2018, we entered into a new line of credit, which expires in March 2019. This supply agreement and its covenants are more fully described in Note 8, and our line of credit is more fully described in Note 5, to our Financial Statements in Part I, Item 1 of this Form 10-Q.

We believe that cash from operations and cash on hand, in addition to unused borrowing capacity will be adequate to fund our operating plans through 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 product, 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 $400,000 and $600,000, and we could enter into one or more financing leases to finance these acquisitions, subject to the provisions of our New Line of Credit Agreement. 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 March 31, 2018, we had a net operating loss carryforward of approximately $96 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, 2018 and December 31, 2036. 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 some portion 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 5 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 (the "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 actually occurs, 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

None.

Item 6. Exhibits

Exhibit 10.1	Business Loan Agreement, executed by the Company on March 26, 2018, between the Company and Libertyville Bank and Trust Company, incorporated by reference to Exhibit 10.33 to the Company's Annual Report on Form 10-K for the year ended December 31, 2017.
Exhibit 10.2	Promissory Note, executed by the Company on March 26, 2018, granted by the Company in favor of Libertyville Bank and Trust Company, incorporated by reference to Exhibit 10.34 to the Company's Annual Report on Form 10-K for the year ended December 31, 2017.
Exhibit 10.3	Commercial Security Agreement, executed by the Company on March 26, 2018, between the Company and Libertyville Bank and Trust Company, incorporated by reference to Exhibit 10.35 to the Company's Annual Report on Form 10-K for the year ended December 31, 2017.
Exhibit 10.4	Employment Agreement, executed by the Company on March 16, 2018 and effective as of March 26, 2018, by and between the Company and Jaime Escobar, incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on March 20, 2018.
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 March 31, 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: May 15, 2018	By: /s/ JESS A. JANKOWSKI Jess A. Jankowski President and Chief Executive Officer
Date: May 15, 2018	By: /s/ JAIME ESCOBAR Jaime Escobar Chief Financial Officer