**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: **June 30, 2023**
or
**? TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the transition period from to _____ 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**

Securities registered pursuant to Section 12(b) of the Act: None

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 August 10, 2023, there were 49,589,204 shares outstanding of common stock, par value $.01, of the registrant.

**NANOPHASE TECHNOLOGIES CORPORATION**

**QUARTER ENDED JUNE 30, 2023**

**INDEX**

## PART I – FINANCIAL INFORMATION

### Item 1. Financial Statements

### NANOPHASE TECHNOLOGIES CORPORATION

### CONSOLIDATED BALANCE SHEETS
### (Unaudited Consolidated Condensed)

| | (in thousands except share and per share data) | |
|---|---|---|
| **ASSETS** | **June 30, 2023** | **December 31, 2022** |
| **Current assets:** | | |
| Cash | $ 2,197 | $ 2,186 |
| Trade accounts receivable, less allowance for doubtful accounts of $324 for June 30, 2023, and $ 139 for December 31, 2022 | 5,718 | 4,734 |
| Inventories, net | 8,412 | 8,839 |
| Prepaid expenses and other current assets | 1,043 | 866 |
| Total current assets | 17,370 | 16,625 |
| | | |
| Equipment and leasehold improvements, net | 8,459 | 7,949 |
| Operating leases, right of use | 8,468 | 8,978 |
| Other assets, net | 5 | 6 |
| Total assets | $ 34,302 | $ 33,558 |
| **LIABILITIES AND SHAREHOLDERS' EQUITY** | | |
| **Current liabilities:** | | |
| Lines of credit, related party | $ 8,592 | $ 7,282 |
| Accounts payable | 4,957 | 6,363 |
| Current portion of long-term debt, related party | 2,338 | — |
| Current portion of deferred revenue | 2,053 | 2,167 |
| Accrued expenses | 1,442 | 1,023 |
| Total current liabilities | 19,382 | 16,835 |
| | | |
| Long-term portion of operating lease obligations | 9,482 | 9,823 |
| Long-term debt, related party | — | 1,000 |
| Long-term portion of deferred revenue | 45 | 21 |
| Asset retirement obligations | 234 | 230 |
| Total long-term liabilities | 9,761 | 11,074 |
| | | |
| **Shareholders' equity:** | | |
| Preferred stock, $.01 par value, 24,088 shares authorized, and no shares issued and outstanding | — | — |
| Common stock, $.01 par value, 60,000,000 shares authorized; 49,589,204 and 49,320,680 shares issued and outstanding on June 30, 2023 and December 31, 2022, respectively | 496 | 493 |
| Additional paid-in capital | 105,762 | 105,226 |
| Accumulated deficit | (101,099) | (100,070) |
| Total Shareholders' equity | 5,159 | 5,649 |
| **Total liabilities and shareholders' equity** | $ 34,302 | $ 33,558 |

*See Notes to Consolidated Condensed Financial Statements*

**NANOPHASE TECHNOLOGIES CORPORATION**

**CONSOLIDATED STATEMENTS OF OPERATIONS**
**(Unaudited Consolidated Condensed)**

**(in thousands except share and per share data)**

| | Three months ended June 30, | | Six months ended June 30, | |
|---|---|---|---|---|
| | **2023** | **2022** | **2023** | **2022** |
| **Revenue:** | | | | |
| Product revenue | $ 11,844 | $ 10,796 | $ 21,180 | $ 18,842 |
| Other revenue | 28 | 426 | 149 | 536 |
| Total revenue | 11,872 | 11,222 | 21,329 | 19,378 |
| **Operating expense:** | | | | |
| Cost of revenue | 8,197 | 8,486 | 15,505 | 14,474 |
| Gross profit | 3,675 | 2,736 | 5,824 | 4,904 |
| Research and development expense | 991 | 797 | 1,994 | 1,463 |
| Selling, general and administrative expense | 2,105 | 1,816 | 4,255 | 3,213 |
| Income (loss) from operations | 579 | 123 | (425) | 228 |
| Interest expense | 246 | 73 | 400 | 116 |
| Income before provision for income taxes | 333 | 50 | (825) | 112 |
| Provision for income taxes | — | — | — | — |
| Net income (loss) | $ 333 | $ 50 | $ (825) | $ 112 |
| Net income (loss) per basic share | $ 0.01 | $ 0.00 | $ (0.02) | $ 0.00 |
| Weighted average number of basic common shares outstanding | 49,567,338 | 49,045,047 | 49,498,755 | 49,014,847 |
| Net income (loss) per diluted share | $ 0.01 | $ 0.00 | $ (0.02) | $ 0.00 |
| Weighted average number of diluted common shares outstanding | 50,136,338 | 51,008,047 | 49,498,755 | 50,990,847 |

*See Notes to Consolidated Condensed Financial Statements*

**NANOPHASE TECHNOLOGIES CORPORATION**

**CONSOLIDATED STATEMENTS OF SHAREHOLDERS' EQUITY**
**(Unaudited Consolidated Condensed)**

| | Preferred Stock | | Common Stock | | Additional Paid-in | Accumulated | |
|---|---|---|---|---|---|---|---|
| **Description** | **Shares** | **Amount** | **Shares** | **Amount** | **Capital** | **Deficit** | **Total** |
| Balance on December 31, 2021 | — | $ — | 48,893,573 | $ 489 | $ 104,423 | $ (97,447) | $ 7,465 |
| Issuance of shares and stock option exercises | — | — | 133,168 | 1 | 72 | — | 73 |
| Stock-based compensation | — | — | — | — | 148 | — | 148 |
| Net income for the three months ended March 31, 2022 | — | — | — | — | — | 62 | 62 |
| Balance on March 31, 2022 | — | $ — | 49,026,741 | $ 490 | $ 104,643 | $ (97,385) | $ 7,748 |
| | | | | | | | |
| Issuance of shares and stock option exercises | — | — | 110,289 | 1 | 33 | — | 34 |
| Stock-based compensation | — | — | — | — | 155 | — | 155 |
| Net income for the three months ended June 30, 2022 | — | — | — | — | — | 50 | 50 |
| Balance on June 30, 2022 | — | $ — | 49,137,030 | $ 491 | $ 104,831 | $ (97,335) | $ 7,987 |
| | | | | | | | |
| Balance on December 31, 2022 | — | $ — | 49,320,680 | $ 493 | $ 105,226 | $ (100,070) | $ 5,649 |
| Issuance of shares and stock option exercises | — | — | 199,891 | 2 | 99 | — | 101 |
| Stock-based compensation | — | — | — | — | 209 | — | 209 |
| Cumulative effect of accounting changes related to expected credit losses | — | — | — | — | — | (203) | (203) |
| Net loss for the three months ended March 31, 2023 | — | — | — | — | — | (1,159) | (1,159) |
| Balance on March 31, 2023 | — | $ — | 49,520,571 | $ 495 | $ 105,534 | $ (101,432) | $ 4,597 |
| | | | | | | | |
| Issuance of shares and stock option exercises | — | — | 68,633 | 1 | 33 | — | 34 |
| Stock-based compensation | — | — | — | — | 195 | — | 195 |
| Net income for the three months ended June 30, 2023 | — | — | — | — | — | 333 | 333 |
| Balance on June 30, 2023 | — | $ — | 49,589,204 | $ 496 | $ 105,762 | $ (101,099) | $ 5,159 |

*See Notes to Consolidated Condensed Financial Statements.*

**NANOPHASE TECHNOLOGIES CORPORATION**

**CONSOLIDATED STATEMENTS OF CASH FLOWS**
**(Unaudited Consolidated Condensed)**

| | Six months ended June 30, | |
|---|---|---|
| | 2023 | 2022 |
| | (in thousands) | |
| **Operating activities:** | | |
| Net (loss) income | $ (825) | $ 112 |
| Adjustments to reconcile net (loss) income to cash used in operating activities: | | |
| Depreciation and amortization | 346 | 271 |
| Share-based compensation | 404 | 303 |
| Changes in assets and liabilities related to operations: | | |
| Trade accounts receivable | (1,187) | (2,600) |
| Inventories | 427 | (2,854) |
| Prepaid expenses and other assets | (177) | (290) |
| Accounts payable | (1,447) | 661 |
| Accrued expenses | 419 | 480 |
| Deferred revenue | (90) | (60) |
| Change in ROU asset and lease liability, net | 169 | 596 |
| Net cash used in operating activities | (1,961) | (3,381) |
| **Investing activities:** | | |
| Acquisition of equipment and leasehold improvements | (811) | (1,128) |
| Net cash used in investing activities | (811) | (1,128) |
| **Financing activities:** | | |
| Principal payments on finance leases | — | (75) |
| Proceeds from line of credit, related party | 17,804 | 18,675 |
| Payments to line of credit, related party | (16,494) | (14,191) |
| Proceeds from term loan, related party | 1,338 | — |
| Proceeds from exercise of stock options | 135 | 107 |
| Net cash provided by financing activities | 2,783 | 4,516 |
| Increase in cash and cash equivalents | 11 | 7 |
| Cash and cash equivalents at beginning of period | 2,186 | 657 |
| Cash and cash equivalents at end of period | $ 2,197 | $ 664 |
| **Supplemental cash flow information:** | | |
| Interest paid | $ 318 | $ 87 |
| **Supplemental non-cash investing and financing activities:** | | |
| Accounts payable incurred for the purchase of equipment and leasehold improvements | $ 39 | $ 141 |
| ROU assets obtained in exchange for lease liabilities | $ 36 | $ — |

*See Notes to Consolidated Condensed Financial Statements.*

**NANOPHASE TECHNOLOGIES CORPORATION**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**
**(Unaudited Consolidated Condensed)**
**(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", "Company", "we", "our", or "us") reflect all adjustments (consisting of normal recurring adjustments) which, in the opinion of management, are necessary for a fair statement of our financial position and operating results for the interim periods presented. All statements include the results from both Nanophase and our wholly-owned subsidiary, Solésence, LLC ("Solésence," or our "Solésence® subsidiary"). Operating results for the six months ended June 30, 2023 are not necessarily indicative of the results that may be expected for the year ending December 31, 2023.

These financial statements should be read in conjunction with our audited financial statements and notes thereto for the year ended December 31, 2022, included in the Company's Annual Report on Form 10-K for the year ended December 31, 2022 as filed with the Securities and Exchange Commission.

**(2) Description of Business**

Nanophase Technologies Corporation ("Nanophase," "Company," "we," "our," or "us") is a science-driven company which, along with its wholly owned subsidiary, Solésence, LLC (our "Solésence beauty science subsidiary"), is focused in various beauty- and life-science markets.? Using consumer health as our end-goal and science and innovation to guide the path, skin health and medical diagnostics combined currently make up the great majority of our business and drive our forward growth strategy.? We offer engineered materials, formulation development and commercial manufacturing through an integrated family of technologies. Our expertise in materials engineering allows us to effectively coat and disperse particles on a nano and "non-nano" scale for use in a variety of skin health markets, including for use in sunscreens as active ingredients and as fully developed prestige skin care and cosmetics products, marketed and sold through our Solésence beauty science subsidiary.? In terms of our life sciences focus, we have seen demand significantly decrease for our medical diagnostics ingredients. Additionally, we continue to sell products in legacy markets, including architectural coatings, industrial coating applications, abrasion-resistant additives, plastics additives, and surface finishing technologies (polishing) applications, all of which, along with medical diagnostics, fall into the advanced materials product category.?

?We target markets, primarily related to skin health products and ingredients, as well as diagnostic life sciences ingredients where we believe our materials and products offer practical and competitive minerals-based solutions. We traditionally work closely with current customers in these target markets to identify their material and performance requirements. We market our materials to various end-use applications manufacturers, and our Solésence® products 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) — now called Active Stress Defense ™ Technology — which became the cornerstone of our new product development in personal care, with first revenue recognized during 2016. Active Stress Defense™ now refers to a suite of three proprietary technologies — Original Active Stress Defense™, Kleair™, and Bloom™ — all three of which either utilize a unique and proprietary, mineral-based technology or work synergistically with one of our unique and proprietary, mineral-based technologies to improve performance and/or aesthetics. Our ongoing innovation efforts include new IP in areas that advance environmental protection, align with market needs, and complement our existing technologies. Through the creation of our Solésence beauty science subsidiary, we utilize our technology suite to manufacture and sell fully developed solutions to targeted customers in the skin care industry, typically in prestige skin care and cosmetics markets, in addition to the ingredients we have traditionally sold in the personal care area.

Although our primary strategic focus has been the North American market, we currently sell materials to customers overseas and have been working to expand our reach within foreign markets. 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 Consolidated Statements of Operations, as it does not represent revenue directly from the sale of our products.

**(3) Revenues**

Revenues are recognized 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. When our ingredients and finished products are shipped, with control being transferred at the shipping point almost universally, is the point in time at which we recognize the related revenue.

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.

Contract balances at June 30, 2023, December 31, 2022, and December 31, 2021 are as follows:

| | Accounts Receivable | Contract Assets | Contract Liabilities |
|---|---|---|---|
| Balance, December 31, 2021 | $ 3,937 | $ 179 | $ 1,444 |
| Balance, December 31, 2022 | 4,734 | — | 2,188 |
| Balance, June 30, 2023 | 5,718 | — | 2,098 |

Revenue recognized in the reporting period that was included in the contract liability balance at the beginning of the period was $726 and $89, for the three months ended June 30, 2023 and 2022, respectively, and $2,024 and $212 for the six months ended June 30, 2023 and 2022, respectively.

Other revenue may include revenue from technology license fees and paid development projects. Technology license fees and paid development projects are recognized over time when the obligations under the agreed upon contractual arrangements are performed on our part. Other revenue recognized over time was $28 and $76, for the three months ended June 30, 2023 and 2022, respectively, and $149 and $186 for the six months ended June 30, 2023 and 2022, respectively. Other revenue recognized at a point in time was $350 for the three months ended June 30, 2022, and $350 for the six months ended June 30, 2022.

**(4) Earnings Per Share**

Options to purchase approximately 569,000 of common stock that were outstanding as of June 30, 2023 were included in the computation of diluted earnings per share for the three months ended June 30, 2023. Options to purchase approximately 726,000 shares of common stock that were outstanding as of June 30, 2023 were not included in the computation of diluted earnings per share for the six months ended June 30, 2023, respectively. The inclusion of these shares for the six months ended June 30, 2023 would have resulted in an anti-dilutive effect and were thus omitted from disclosure. Options to purchase approximately 1,963,000 and 1,976,000 shares of common stock that were outstanding as of June 30, 2022 were included in the computation of earnings per share for the three months and six months ended June 30, 2022, respectively.

Earnings applicable to common stock and common stock shares used in the calculation of basic and diluted earnings per share are as follows:

| | Three months ended June 30, | | Six months ended June 30, | |
|---|---|---|---|---|
| | 2023 | 2022 | 2023 | 2022 |
| Numerator: (in Thousands) | | | | |
| Net (loss) income | $ 333 | $ 50 | $ (825) | $ 112 |
| | | | | |
| Denominator: | | | | |
| Weighted average number of basic shares outstanding | 49,567,338 | 49,045,047 | 49,498,755 | 49,014,847 |
| Weighted average additional shares assuming conversion of in-the-money stock options to common shares and assumed repurchase of common shares by the Company | 569,000 | 1,963,000 | — | 1,976,000 |
| Weighted average number of diluted common shares outstanding | 50,136,338 | 51,008,047 | 49,498,755 | 50,990,847 |
| | | | | |
| Basic earnings per common share: | | | | |
| Net income (loss) per share – basic | $ 0.01 | $ 0.00 | $ (0.02) | $ 0.00 |
| Diluted earnings per common share: | | | | |
| Net income (loss) per share – diluted | $ 0.01 | $ 0.00 | $ (0.02) | $ 0.00 |

**(5) Financial Instruments**

We follow 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, any cash equivalents, accounts receivable, accounts payable and accrued expenses, along with any short-term and long-term borrowings as described in Note 6. The carrying values of cash and cash equivalents, accounts receivable, and accounts payable and accrued expenses are reasonable estimates of their fair value due to the short-term nature of these accounts. The fair value of short-term and long-term debt approximates carrying value based on comparison of terms to similar debt offering in the marketplace.

There were no financial instruments adjusted to fair value on June 30, 2023 and December 31, 2022.

**(6) Notes and Lines of Credit**

Notes and lines of credit consist of the following:

| | | As of June 30, 2023 | | As of December 31, 2022 | |
|---|---|---|---|---|---|
| | Rate | Total Borrowing Capacity | Outstanding Borrowed Balance | Total Borrowing Capacity | Outstanding Borrowed Balance |
| Libertyville Bank & Trust (1) | 9.25% | $ 30 | $ — | $ — | $ — |
| Libertyville Bank & Trust (2) | 9.25% | 500 | — | — | — |
| Strandler, LLC(3) | 9.00% | 1,000 | 1,000 | 1,000 | 1,000 |
| Beachcorp, LLC (4) | 9.00% | 5,958 | 4,592 | 4,392 | 4,282 |
| Beachcorp, LLC (5) | 9.00% | 4,000 | 4,000 | 4,000 | 3,000 |
| Beachcorp, LLC (6) | 9.00% | 1,750 | 1,388 | — | — |

1) Since July 2014, we have maintained a bank-issued letter of credit for up to $30 in borrowings, with interest at the prime rate plus 1%, to support our obligations under our Romeoville, Illinois facility lease agreement. No borrowings have been incurred under this promissory note. It is our intention to renew this note annually. Because there were no amounts outstanding on the note at any time during 2023 or 2022, we have recorded no related liability on our balance sheet.

2) The Company maintains a credit agreement with Libertyville to support our obligations under our newly leased manufacturing and warehouse space in Bolingbrook, Illinois. Interest on drawn balances will be at the prime rate plus 1%. This credit agreement has a maturity of December 22, 2023. We expect to renew this agreement annually, as the lease requires. This credit agreement is secured by all the unencumbered assets of the Company, and has superior collateral rights to those credit facilities with Beachcorp, LLC and Strandler, LLC.

3) On January 28, 2022 the Company entered into an additional Business Loan Agreement (the "New Term Loan Agreement") with Strandler, LLC, which effectively transferred or assigned the previously existing Term Loan to Strandler, LLC from Beachcorp, LLC. Interest on the New Term Loan is at the prime rate plus 0.75%, and it matures on March 31, 2024. Strandler, LLC is also an affiliate of Bradford T. Whitmore.

4) On January 28, 2022 the Company entered into an Amended and Restated Business Loan Agreement (the "A&R Loan Agreement"), which amends and restates the Master Agreement between the Company and Beachcorp, LLC, and a new promissory note in order to evidence the A/R Revolver facility, including an amendment to expand the limit on the A/R Revolver Facility from $6,000 to $8,000, reduce the interest rate to the prime rate plus 0.75%, and extend the maturity of the A/R Revolver Facility to March 31, 2024.

5) On January 28, 2022 the Company entered into the A&R Loan Agreement and a new revolving loan agreement ("Inventory Facility") with Beachcorp, LLC, and a new promissory note in order to evidence the Inventory Facility. The maximum borrowing amount under the Inventory Facility is $4,000, with a borrowing base consisting of up to 50 % of the value of qualified inventory of the Company. The interest rate for the Inventory Revolver is at the prime rate plus 0.75%, and it matures on March 31, 2024.

6) On May 1, 2023 the Company entered into a non-revolving promissory note ("TI Promissory Note") with Beachcorp, LLC. The maximum borrowing amount under the TI Promissory Note is $1,750. The interest rate for the TI Promissory Note is at the prime rate plus 0.75%, and it matures on September 30, 2023. This loan is for work being done at the Bolingbrook facility which is expected to be reimbursed from the landlord as part of the lease agreement. On July 21, 2023, the TI Promissory Note and accrued interest was repaid in full after reimbursement from the landlord for approved tenant improvements.

Beachcorp, LLC and Strandler, LLC are affiliates of Mr. Bradford T. Whitmore, who beneficially owns a majority of the Company's common stock and is the brother of Ms. R. Janet Whitmore, a director of the Company and the chair of the Company's board of directors. The A/R Revolver Facility, the Inventory Facility and the New Term Loan are all secured by all the unencumbered assets of the Company and subordinated to the Company's credit facility with Libertyville Bank & Trust. The Company's loan agreements with Strandler, LLC and Beachcorp. LLC currently are set to expire on March 31, 2024. If we are unable to refinance or extend the maturity dates, it would have a significant impact on the ability of the Company to continue as a going concern.

Related party interest summary:

| | Three months ended June 30, | | Six months ended June 30, | |
|---|---|---|---|---|
| | 2023 | 2022 | 2023 | 2022 |
| Interest expense, related parties | $ 211 | $ 68 | $ 361 | $ 107 |
| Accrued interest expense, related parties | 78 | 29 | 78 | 29 |

**(7) Inventories**

Inventories consist of the following:

| | June 30, 2023 | December 31, 2022 |
|---|---|---|
| Raw materials | $ 5,689 | $ 6,797 |
| Finished goods | 2,723 | 2,041 |
| Total inventories, net | $ 8,412 | $ 8,839 |

The Company had reserves for excess and obsolete inventory of $525 and $500 as of June 30, 2023 and December 31, 2022, respectively.

**(8) Significant Customers and Contingencies**

The portion of total revenue from our significant customers are as follows for the periods ending June 30, 2023, and 2022:

| | | Three months ended June 30, | | Six months ended June 30, | |
|---|---|---|---|---|---|
| Customer # | Product Category | 2023 | 2022 | 2023 | 2022 |
| 1 | Personal Care Ingredients | 26% | 29% | 31% | 29% |
| 2 | Solésence® | 15% | 15% | 13% | 16% |
| 3 | Solésence® | 16% | 14% | 11% | 14% |
| 4 | Solésence® | 11% | 4% | 10% | 6% |
| | Total | 68% | 62% | 65% | 65% |

Accounts receivable balances for these four customers were approximately:

| Customer # | Product Category | June 30, 2023 | June 30, 2022 |
|---|---|---|---|
| 1 | Personal Care Ingredients | $ 824 | $ 1,737 |
| 2 | Solésence® | 643 | 798 |
| 3 | Solésence® | 1,587 | 1,470 |
| 4 | Solésence® | 914 | 3 |
| | Total | $ 3,968 | $ 4,008 |

We currently have exclusive supply agreements with BASF Corporation ("BASF"), our largest customer, that have contingencies outlined which could potentially result in "triggering" 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. 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.

If a triggering event were to occur and BASF elected to proceed with the equipment sale mentioned above, 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.

**(9) Business Segmentation and Geographical Distribution**

Revenue from international sources approximated $752 and $2,187 for the three and six months ended June 30, 2023, respectively, compared to $435 and $490 for the three and six months ended June 30, 2022, respectively. All of 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. We categorize our revenue stream into three main product categories, Personal Care Ingredients, Advanced Materials and Solésence. The revenues, by category, for the three and six months ended June 30, 2023 and 2022 are as follows:

| | Three months ended June 30, | | Six months ended June 30, | |
|---|---|---|---|---|
| **Product Category** | **2023** | **2022** | **2023** | **2022** |
| Solésence | $ 7,779 | $ 7,099 | $ 12,823 | $ 12,659 |
| Personal Care Ingredients | 3,037 | 3,305 | 6,581 | 5,687 |
| Advanced Materials | 1,056 | 818 | 1,925 | 1,032 |
| Total Sales | $ 11,872 | $ 11,222 | $ 21,329 | $ 19,378 |

**(10) Commitments and Contingencies**

On August 9, 2022, BASF filed a complaint against Nanophase in New Jersey state court (the "New Jersey Complaint"), alleging that Nanophase had breached the 1999 Zinc Oxide Supply Agreement (the "Agreement"). BASF alleges several issues, the one having the biggest potential impact on Nanophase being a claim that our sales through Solésence violate the exclusivity provision of the Agreement. BASF seeks an unspecified amount of damages, a permanent injunction enjoining sales to any party (other than BASF) of a broad range of zinc oxide products that BASF contends are within the scope of the exclusivity provision, counsel fees and litigation expenses. On September 7, 2022, Nanophase filed a Complaint for Declaratory Judgement in Illinois state court (the "Illinois Complaint"), asking for a declaration that contrary to BASF's allegation, the exclusivity provision of the Agreement does not apply to all products containing zinc oxide as an ingredient for uses designated under the Agreement, nor does the exclusivity provision prohibit Nanophase's sales of Solésence products containing zinc oxide as an ingredient. Both companies filed Motions to Dismiss (MTD) the other's respective complaint. Nanophase's MTD BASF's New Jersey Complaint was denied on procedural grounds on February 10, 2023, with the New Jersey court superficially noting that it did not consider whether BASF could prove its claims. On February 28, 2023, Nanophase filed its answer to BASF's New Jersey Complaint, denying all wrongdoing and, as mandated by New Jersey procedural requirements, counterclaims including a request for a declaration similar to that Nanophase sought in its Illinois Complaint. On March 16, 2023, the Illinois court granted BASF's MTD Nanophase's Illinois Complaint, finding it duplicative of the New Jersey litigation. Discovery in that litigation is ongoing. Management believes at this time that the allegations of BASF's complaint are without merit and are unsupported by the terms of the Agreement and governing law. Per ASC 450 for the period ending June 30, 2023, an estimated contingent loss was not recorded, and an estimated range of loss is not disclosed as the outcome is not probable at this time and nor is a range of loss estimable.

**(11) Accounting Standards Adopted During 2023**

On January 1, 2023, the Company adopted ASU 2016-13 "*Financial Instruments – Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments*" which updates the manner in which entities assess expected losses from financial instruments exposed to credit risk. While this update has a greater impact on issuers with loans, notes, and credit card receivables, the scope of Topic 326 extends to both financial assets measured at amortized cost as well as available-for-sale debt securities. As such, trade receivables are subject to the Topic's provisions, requiring entities to consider past events, current conditions, and reasonable and supportable forecasts in determining the amount of expected loss over the life of the respective financial instrument. Nanophase uses the loss-rate method in developing its allowance for credit losses, which involves identifying pools of assets with similar risk characteristics, reviewing historical losses within the last three years, and consideration of reasonable and supportable forecasts. Changes in estimates, developing trends, and other new information can have a material impact on future evaluations.

This differs from prior allocation methodologies in that in addition to solely considering an aging schedule for amounts to reserve, management must now also consider current events as well as the future macroeconomic environment when making such loss assessments. On January 1, 2023, the Company applied the accounting change retrospectively with an opening adjustment to retained earnings in the amount of $203.

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

**Overview**

Nanophase is a health-oriented, science-driven company, which, along with its wholly owned subsidiary, Solésence, LLC (our "Solésence beauty science subsidiary"), is focused in various beauty- and life-science markets. Our primary skin health products are fully developed prestige skin care formulations with mineral-based UV protection, marketed and sold through our Solésence beauty science subsidiary, enabled by our proprietary Active Pharmaceutical Ingredients ("APIs") which are also marketed as APIs for sale to manufacturers of other types of skin health products, including sunscreens and daily care products.? ? In terms of our life sciences focus, we have seen demand significantly decrease for our medical diagnostics ingredients.? Additionally, we continue to sell products in legacy markets including architectural coatings, industrial coating applications, abrasion-resistant additives, plastics additives, and surface finishing technologies (polishing) applications— all of which, along with medical diagnostics, currently fall into the advanced materials product category.

Leveraging a platform of integrated patented and proprietary technologies, we create products with unique performance to enhance end-consumers' health and well-being. We offer soup-to-nuts production, from engineered materials, formulation development, and finished product development, to commercial manufacturing and packaging capabilities. Our expertise in materials engineering allows us to effectively coat and disperse materials on a nano and "non-nano" scale for use in a variety of markets in skin health, including for use in sunscreens as APIs and as fully developed prestige skin care products, marketed and sold through our Solésence beauty science subsidiary. We believe that we have developed technological advantages with respect to our APIs sold for use as ingredients, while our Solésence beauty science technologies lead to enhanced efficacy and aesthetics in our finished products, which have received broad acceptance in the marketplace. Due to the enhanced efficacy and aesthetic

qualities offered by our proprietary technology platform, Solésence finished products satisfy growing consumer demands around "clean" and inclusive beauty. Solésence beauty science also benefits from the Company's vertical integration with each product's key active ingredient that delivers its point-of-difference. This vertical integration helps us to improve efficiency and avoid potential major supply chain challenges while also addressing ongoing sustainability efforts.?

Given our technological position, in addition to the historical market acceptance of our APIs for use in skin health products and sunscreens and, rapidly growing sales for our suite of Solésence® finished products, in 2021 we announced that we reoriented our Company strategy. We continue to see unprecedented demand in the beauty science. The market has shown an appetite for what we are producing, and management believes that this growth is happening now due to a confluence of our technology, market conditions that favor what we produce, and our expanded expertise in these areas.?

Nanophase, primarily through Solésence, now partners with brands to develop, manufacture, and market products and ingredients that enhance lives through healthy skin. We are focusing our combined business, ingredient, and product development capabilities on products with unique performance in this area. While we will continue to produce and sell materials to our other advanced materials customers, it is not our strategic focus. We may develop additional technologies or find unique applications outside of our core markets in the future, but to maximize the use of our resources today, we plan on expanding efforts in areas where we have proven we can deliver innovation and growth.

**Results of Operations**

Total revenue increased to $11,872 for the three months ended June 30, 2023, compared to $11,222 for the same period in 2022. Total revenue increased to $21,329 for the six months ended June 30, 2023, compared to $19,378 for the same period in 2022. A substantial majority of our revenue was from our four largest customers for the three- and six-month periods ended June, 2023, and 2022, respectively. This reflects sales of APIs to our largest customer in skin care and sunscreen applications and, our three largest customers for our finished skin health products marketed through our Solésence subsidiary. This is the revenue breakdown, as a percentage of total revenue, from the four customers referenced above:

| | | Three months ended June 30, | | Six months ended June 30, | |
|---|---|---|---|---|---|
| **Customer #** | **Product Category** | **2023** | **2022** | **2023** | **2022** |
| 1 | Personal Care Ingredients | 26% | 29% | 31% | 29% |
| 2 | Solésence® | 15% | 15% | 13% | 16% |
| 3 | Solésence® | 16% | 14% | 11% | 14% |
| 4 | Solésence® | 11% | 4% | 10% | 6% |
| | Total | 68% | 62% | 65% | 65% |

Product revenue, the primary component of our total revenue, increased to $11,844 for the three months ended June 30, 2023, compared to $10,796 during the same period of 2022, and increased to $21,180 for the six months ended June 30, 2023, compared to $18,842 during the same period of 2022. This increase was due to continued growth in the adoption of our Solésence® products, along with an increase in API sales to our largest customer in our personal care ingredients business. We saw little revenue from medical diagnostics materials in 2023 and 2022.

Other revenue decreased to $28 and $149 for the three- and six-month periods ended June 30, 2023, compared to $426 and $536 for the same periods in 2022, respectively. Other revenue is typically comprised primarily of developmental or licensing fees.

Cost of revenue generally includes costs associated with commercial production and customer development arrangements. Cost of revenue decreased to $8,197 for the three months ended June 30, 2023, compared to $8,486 for the same period in 2022, and increased to $15,505 for the six months ended June 30, 2023, compared to $14,474 for the same period in 2022. The decrease for the three months in the cost of revenue was due to better labor utilization compared to the previous year. The increase for the six months in cost of revenue was primarily driven by increased volume and 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.

Our business has a certain cyclicality of demand, often based upon seasonal demands, industry launch cycles, or a confluence of both. Our lack of burst capacity has created strains, in terms of people and costs, when new product launches occur at the same time that we are experiencing demand from previously launched products. Since late 2020, the Company has found itself in a situation where our ability to produce and ship materials has been exceeded by customer demand. It is a key area of focus to increase throughput first, followed quickly by increased cost efficiency once we can achieve greater scale. Our planning has had us adding to our current fixed manufacturing cost structure through 2023 to accommodate additional growth, and to build a better base for further growth beyond that level. The extent to which margins grow, as a percentage of total revenue, will be dependent upon revenue mix, revenue volume, our ability to cut 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, as product revenue volume increases, our fixed manufacturing costs will be more efficiently absorbed, which should lead to increased margins as we grow. While additional production capacity is our most critical operational issue today, 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 significant percentage growth in our gross margins in the remainder of 2023, depending 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 finished product formulations for skin care, new product applications for our skin care ingredients, advancement of our medical diagnostics ingredient knowledge, and the cost of enhancing our manufacturing processes. As an example, we are currently focusing the bulk of our resources on developing new product formulations, and related new technologies, as we expand marketing and sales efforts relating to our Solésence products. This work has led to several new products and additional potential new products. Our efforts in research and development, cosmetic formulating, process engineering and advanced engineering groups are focused in three major areas: 1) application development for our products; 2) creating or obtaining additional core materials technologies and/or materials that have the capability to serve multiple skin health-related markets; and 3) continuing to improve our core technologies to improve manufacturing operations and reduce costs.

Research and development expense increased to $991 for the three months ended June 30, 2023, compared to $797 for the same period in 2022. For the six months ended June 30, 2023 research and development expense increased to $1,994 compared to $1,463 for the same period in 2022. Most of this increase was due to expanded staffing to aid in supporting new product development for current and future customers. Management expects research and development expense to increase at a slower rate during the balance of 2023 to support continued revenue- and customer-expansion.

Selling, general and administrative expense increased to $2,105 for the three months ended June 30, 2023, compared to $1,816 for the same period in 2022. For the six months ended June 30, 2023, selling, general and administrative expense increased to $4,255, compared to $3,213 for the same period in 2022. The increase is due in large part to increased legal costs in 2023 compared to 2022 and increased employee related costs when compared to 2022.

**Inflation**

We believe inflation has had an incremental impact on our costs of operations and financial position to date. However, supplier price increases and wage and benefit inflation, both of which represent a significant component of our costs of operations, could have a material effect on our operations and financial position in 2023 if we are unable to pass through any applicable increases under our present contracts or through to our markets in general. We have begun to increase pricing where possible and continue to adjust our pricing to the extent supported by the markets we are in, and under any contract limitations we may have.

**Liquidity and Capital Resources**

Cash, cash proceeds and use of cash for the six months ended June 30, 2023, 2022, and year ended December 31, 2022 were:

| | Six months ended June 30, 2023 | Six months ended June 30, 2022 | Year ended December 31, 2022 |
|---|---|---|---|
| Total cash | $ 2,197 | $ 664 | $ 2,186 |
| Cash (used in) operating activities | (1,961) | (3,381) | (1,650) |
| Net cash (used in) investing activities | (811) | (1,128) | (2,823) |
| Net cash provided by financing activities | 2,783 | 4,516 | 6,002 |

The net cash used during the six months ended June 30, 2023 was primarily due to net loss for the 1st quarter and increased accounts payables. Net cash used in investing activities was attributable to expenditures on capital equipment for all periods presented above. The Company's loan agreements with Strandler, LLC and Beachcorp. LLC currently are set to expire on March 31, 2024. If we are unable to refinance or extend the maturity dates, it would have a significant impact on the ability of the Company to continue as a going concern.

Our actual future capital requirements in 2023 and beyond will depend on many factors, including customer acceptance of our current and potential finished Solésence products, APIs sold as ingredients in to the skin health markets, medical diagnostics ingredients, and other engineered 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 these products and ingredients. 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, and conditions within the markets supplying labor and materials for capital equipment, we expect that capital spending relating to currently known capital needs for 2023 will be between $1.5 million and $3 million, to be funded by profit from operations, our existing loans and lines of credit, and possible new debt financing. If those projects are delayed or ultimately prove unsuccessful, or if we fail to be able to support the additional cost of funding them in the near term, we expect our capital expenditures may fall below the lower end of the range. Similarly, substantial success in business development projects may cause the actual 2023 capital investment to exceed the top of this range.

**Additional Consideration**

We had federal net operating loss carryforwards for tax purposes of approximately $56 million on December 31, 2022. Because the Company may experience "ownership changes" within the meaning of the U.S. Internal Revenue Code ("IRC") in connection with any future equity offerings, future utilization of this carryforward may be subject to certain limitations as defined by the IRC. If not utilized, $51 million of this loss carryforward will expire between 2023 and 2037. Given changes to the IRC, net operating loss carryforwards generated after January 1, 2018 do not expire, therefore, $5 million in net operating losses generated since January 1, 2018 do not expire. We have Illinois net loss deduction carryforwards for tax purposes of approximately $21 million on December 31, 2022. Due to the provisions of Illinois Public Act 102-0669 signed November 16, 2021, Illinois net loss deductions expire between 2029 and 2039.

**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.

**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 2023 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 Solésence products, and our advanced materials; 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; our ability to maintain an appropriate electronic trading venue for our securities; the impact of any potential new governmental regulations, especially any new governmental regulations focusing on the processing, handling, storage or sale of nanomaterials, that could be difficult to respond to or costly to comply with; business interruptions due to unexpected events or public health crises, including viral pandemics such as COVID-19; and the resolution of litigation or other legal proceedings in which we may become involved. 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 Principal Executive Officer and Principal 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 Principal Executive Officer and Principal 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 (who is also currently acting as both the Company's principal executive officer and the Company's principal financial officer), 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**

On August 31, 2022, counsel for Nanophase Technologies Corporation ("Nanophase") received a letter from lawyers representing BASF Corporation ("BASF") stating that BASF had filed a complaint against Nanophase in the Superior Court of New Jersey ("SCNJ") on August 9, 2022 (the "New Jersey Complaint") and that Nanophase's registered agent for service of process had been served with the New Jersey Complaint on August 11, 2022. The August 31, 2022 letter from BASF's lawyers was Nanophase's first notice of the New Jersey Complaint.

The New Jersey Complaint claims that Nanophase breached the Zinc Oxide Supply Agreement dated as of September 16, 1999 between Nanophase and BASF, as assignee, as amended through January 1, 2019 (the "Agreement"). The New Jersey Complaint specifically alleges that Nanophase breached the exclusivity provision of the Agreement by selling zinc oxide to entities other than BASF, including sales to Nanophase's subsidiary Solésence, LLC ("Solésence"), in markets designated as being in the field of use (the "Field") under the Agreement. The New Jersey Complaint also relatedly alleges that Nanophase breached the capacity and inventory provisions of the Agreement. In addition, the New Jersey Complaint alleges claims for unjust enrichment and violation of the duty of good faith and fair dealing. The New Jersey Complaint seeks an unspecified amount of damages, a permanent injunction, counsel fees, and litigation expenses. The New Jersey Complaint is not seeking termination of the Agreement.

Management believes that the allegations of BASF's New Jersey Complaint are without merit and are unsupported by the terms of the Agreement and governing law. On September 8, 2022, Nanophase filed a Motion to Dismiss ("MTD") the New Jersey Complaint with the SCNJ, arguing that BASF's claims in its New Jersey Complaint are not supported by the terms of the Agreement. Following completion of briefing and a hearing on the MTD, the SCNJ denied Nanophase's MTD on February 10, 2023, finding that under the "liberality" standards of New Jersey procedure, the allegations of BASF's complaint were "sufficient to survive" the MTD. The SCNJ specifically noted that it did not consider whether BASF could prove its claims. Thereafter, on February 28, 2023, Nanophase answered BASF's New Jersey Complaint, denying all wrongdoing and, as mandated by New Jersey procedural requirements, filed certain counterclaims including a request for a declaration that contrary to BASF's views, the exclusivity provision of the Agreement does not apply to all products containing zinc oxide as an ingredient for uses designated under the Agreement nor does the exclusivity provision prohibit Nanophase's sales of Solésence products containing zinc oxide as an ingredient. On September 7, 2022, Nanophase filed a Complaint for Declaratory Judgment against BASF in the Circuit Court of Cook County, Illinois (the "Illinois Complaint"). The Illinois Complaint asked the court for a declaration similar to that subsequently sought in Nansphase's counterclaim in the New Jersey litigation. On November 3, 2022, BASF moved to dismiss Nanophase's Illinois Complaint, arguing that it duplicates the New Jersey litigation. Following briefing and a hearing, the Illinois

court granted BASF's motion on procedural grounds on March 16, 2023. Discovery in the New Jersey litigation is ongoing.

Given our view, we have decided that it is not appropriate to record a contingent liability relating to these actions at this time.

Nanophase intends to continue negotiating with BASF in good faith to resolve these issues. In the event that an acceptable solution is not reached, and litigation proceeds, the ultimate resolution cannot now be determined with certainty.

**Item 1A. Risk Factors**

Not required for a smaller reporting company.

**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 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 Principal 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 Principal 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, 2023, formatted in XBRL (Extensible Business Reporting Language): (1) the Balance Sheets, (2) the Statements of Operations, (3) the Statements of Shareholders Equity, (4) the Statements of Cash Flows, and (5) the Notes to Unaudited Consolidated Condensed 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: August 10, 2023

By: /s/ JESS A. JANKOWSKI

Jess A. Jankowski
President and Chief Executive Officer
(principal executive officer, and principal financial officer)