NN INC
Form 10-Q
August 09, 2018
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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, 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 000-23486

NN, Inc.
(Exact name of registrant as specified in its charter)

| Delaware | 62-1096725 |
|---|---|
| (State or other jurisdiction of incorporation or organization) | (I.R.S. Employer Identification Number) |

6210 Ardrey Kell Road
Charlotte, North Carolina 28277
(Address of principal executive offices, including zip code)
(980) 264-4300
(Registrant’s telephone number, including area code)
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 (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes 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 definitions of “large accelerated filer,” “accelerated filer,” “smaller reporting company” and “emerging growth company” in Rule 12b-2 of the Exchange Act. (Check one):

| | | |
|---|---|---|
| Large accelerated filer | | Accelerated filer |
| Non-accelerated filer | (Do not check if a smaller reporting company) | 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 2, 2018, there were 27,729,375 shares of the registrant's common stock, par value $0.01 per share, outstanding.

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PART I. FINANCIAL INFORMATION

Item 1. Financial Statements
NN, Inc.
Condensed Consolidated Statements of Operations and Comprehensive Income (Loss)
(Unaudited)
Amounts in thousands of dollars, except per share data

| | Three Months Ended June 30, | | Six Months Ended June 30, | |
|---|---|---|---|---|
| | 2018 | 2017 | 2018 | 2017 |
| Net sales | $196,349 | $157,947 | $365,497 | $315,502 |
| Cost of sales (exclusive of depreciation and amortization shown separately below) | 148,640 | 114,514 | 275,084 | 228,994 |
| Selling, general and administrative expense | 26,641 | 18,004 | 48,818 | 34,645 |
| Acquisition related costs excluded from selling, general and administrative expense | 3,437 | — | 5,213 | — |
| Depreciation and amortization | 16,258 | 13,051 | 30,539 | 25,622 |
| Other operating expense (income) | 74 | (270) | 96 | (270) |
| Restructuring and integration expense | 1,591 | 6 | 2,346 | 17 |
| Income (loss) from operations | (292) | 12,642 | 3,401 | 26,494 |
| Interest expense | 15,988 | 12,338 | 27,984 | 27,177 |
| Loss on extinguishment of debt and write-off of debt issuance costs | 12,938 | 39,639 | 12,938 | 39,639 |
| Derivative loss on change in interest rate swap fair value | — | 101 | — | 13 |
| Other (income) expense, net | 1,887 | 285 | 1,574 | (437) |
| Loss from continuing operations before benefit for income taxes and share of net income from joint venture | (31,105) | (39,721) | (39,095) | (39,898) |
| Benefit for income taxes | 5,947 | 12,103 | 7,123 | 12,480 |
| Share of net income from joint venture | 647 | 1,244 | 1,478 | 2,937 |
| Loss from continuing operations | (24,511) | (26,374) | (30,494) | (24,481) |
| Income from discontinued operations, net of tax (Note 2) | — | 5,236 | — | 10,754 |
| Net loss | $(24,511) | $(21,138) | $(30,494) | $(13,727) |
| Other comprehensive income (loss): | | | | |
| Foreign currency translation gain (loss) | $(15,781) | $9,511 | $(10,316) | $14,616 |
| Other comprehensive income (loss) | $(15,781) | $9,511 | $(10,316) | $14,616 |
| Comprehensive income (loss) | $(40,292) | $(11,627) | $(40,810) | $889 |
| Basic net loss per share: | | | | |
| Loss from continuing operations per share | $(0.89) | $(0.96) | $(1.10) | $(0.89) |
| Income from discontinued operations per share | — | 0.19 | — | 0.39 |
| Net loss per share | $(0.89) | $(0.77) | $(1.10) | $(0.50) |
| Weighted average shares outstanding | 27,696 | 27,468 | 27,632 | 27,358 |
| Diluted net loss per share: | | | | |
| Loss from continuing operations per share | $(0.89) | $(0.96) | $(1.10) | $(0.89) |
| Income from discontinued operations per share | — | 0.19 | — | 0.39 |
| Net loss per share | $(0.89) | $(0.77) | $(1.10) | $(0.50) |
| Weighted average shares outstanding | 27,696 | 27,468 | 27,632 | 27,358 |
| Cash dividends per common share | $0.07 | $0.07 | $0.14 | $0.14 |

The accompanying notes are an integral part of the Condensed Consolidated Financial Statements.

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NN, Inc.
Condensed Consolidated Balance Sheets
(Unaudited)
Amounts in thousands of dollars

| | June 30, 2018 | December 31, 2017 |
|---|---|---|
| Assets | | |
| Current assets: | | |
| Cash and cash equivalents | $23,207 | $224,446 |
| Accounts receivable, net | 147,449 | 108,446 |
| Inventories | 116,136 | 82,617 |
| Income tax receivable | 51,682 | 43,253 |
| Other current assets | 24,494 | 18,518 |
| Total current assets | 362,968 | 477,280 |
| Property, plant and equipment, net | 334,021 | 259,280 |
| Goodwill | 617,814 | 454,612 |
| Intangible assets, net | 394,664 | 237,702 |
| Investment in joint venture | 40,515 | 39,822 |
| Other non-current assets | 11,102 | 6,307 |
| Total assets | $1,761,084 | $1,475,003 |
| Liabilities and Stockholders' Equity | | |
| Current liabilities: | | |
| Accounts payable | $55,066 | $52,990 |
| Accrued salaries, wages and benefits | 28,429 | 21,145 |
| Current maturities of long-term debt | 29,809 | 17,283 |
| Other current liabilities | 25,129 | 17,003 |
| Total current liabilities | 138,433 | 108,421 |
| Deferred tax liabilities | 117,781 | 71,564 |
| Non-current income tax payable | 5,327 | 5,593 |
| Long-term debt, net of current portion | 1,040,434 | 790,805 |
| Other non-current liabilities | 15,795 | 12,516 |
| Total liabilities | 1,317,770 | 988,899 |
| Commitments and contingencies (Note 12) | | |
| Total stockholders' equity | 443,314 | 486,104 |
| Total liabilities and stockholders' equity | $1,761,084 | $1,475,003 |

The accompanying notes are an integral part of the Condensed Consolidated Financial Statements.

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NN, Inc.
Condensed Consolidated Statement of Changes in Stockholders' Equity
(Unaudited)
Amounts in thousands of dollars and shares

| | Number of shares | Par value | Additional paid in capital | Retained earnings | Accumulated other comprehensive loss | Total |
|---|---|---|---|---|---|---|
| Balance, December 31, 2017 | 27,572 | $275 | $292,494 | $211,080 | $ (17,745) | $486,104 |
| Net loss | — | — | — | (30,494) | — | (30,494) |
| Dividends declared | — | — | — | (3,884) | — | (3,884) |
| Share-based compensation expense | 165 | 2 | 2,332 | — | — | 2,334 |
| Shares issued for option exercises | 27 | — | 274 | — | — | 274 |
| Restricted shares and performance shares forgiven for taxes and forfeited | (35) | — | (720) | — | — | (720) |
| Foreign currency translation gain (loss) | — | — | — | — | (10,316) | (10,316) |
| Adoption of new accounting standard (Note 1) | — | — | — | 16 | — | 16 |
| Balance, June 30, 2018 | 27,729 | $277 | $294,380 | $176,718 | $ (28,061) | $443,314 |

The accompanying notes are an integral part of the Condensed Consolidated Financial Statements.

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NN, Inc.
Condensed Consolidated Statements of Cash Flows
(Unaudited)
Amounts in thousands of dollars

| | Six Months Ended June 30, | | |
|---|---|---|---|
| | 2018 | 2017 | |
| Cash flows from operating activities | | | |
| Net loss | $(30,494) | $(13,727) | |
| Adjustments to reconcile net loss to net cash provided by (used by) operating activities: | | | |
| Depreciation and amortization of continuing operations | 30,539 | 25,622 | |
| Depreciation and amortization of discontinued operations | — | 6,111 | |
| Amortization of debt issuance costs | 2,313 | 2,153 | |
| Loss on extinguishment of debt and write-off of debt issuance costs | 12,938 | 39,639 | |
| Share of net income from joint venture, net of cash dividends received | (1,478) | (2,937) | |
| Compensation expense from issuance of share-based awards | 2,334 | 2,218 | |
| Other | 180 | 102 | |
| Changes in operating assets and liabilities, net of acquisitions: | | | |
| Accounts receivable | (17,256) | (20,062) | |
| Inventories | (10,742) | (5,945) | |
| Accounts payable | (4,653) | 1,339 | |
| Income taxes receivable | (8,695) | (10,612) | |
| Other | 5,589 | (8,136) | |
| Net cash provided by (used by) operating activities | (19,425) | 15,765 | |
| Cash flows from investing activities | | | |
| Acquisition of property, plant and equipment | (28,888) | (20,658) | |
| Cash paid to acquire businesses, net of cash received | (393,481) | — | |
| Other | 625 | 624 | |
| Net cash provided by (used by) investing activities | (421,744) | (20,034) | |
| Cash flows from financing activities | | | |
| Cash paid for debt issuance or prepayment costs | (16,703) | (38,130) | |
| Dividends paid | (3,854) | (3,838) | |
| Proceeds from long-term debt | 270,000 | 317,000 | |
| Repayment of long-term debt | (16,000) | (266,874) | |
| Proceeds from (repayments of) short-term debt, net | 9,703 | (101) | |
| Other | (2,410) | 120 | |
| Net cash provided by (used by) financing activities | 240,736 | 8,177 | |
| Effect of exchange rate changes on cash flows | (806) | 853 | |
| Net change in cash and cash equivalents | (201,239) | 4,761 | |
| Cash and cash equivalents at beginning of period | 224,446 | 14,405 | (1) |
| Cash and cash equivalents at end of period | $23,207 | $19,166 | (2) |

(1) Cash and cash equivalents as of December 31, 2016, includes $8.1 million of cash and cash equivalents that were included in current assets of discontinued operations.

(2) Cash and cash equivalents as of June 30, 2017, includes $12.1 million of cash and cash equivalents that were included in current assets of discontinued operations.

The accompanying notes are an integral part of the Condensed Consolidated Financial Statements.

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NN, Inc.
Notes to Condensed Consolidated Financial Statements
June 30, 2018
(Unaudited)
Amounts in thousands of dollars and shares, except per share data

## Note 1. Interim Financial Statements

### Nature of Business

NN, Inc., is a global diversified industrial company that combines advanced engineering and production capabilities with in-depth materials science expertise to design and manufacture high-precision components and assemblies for the medical, aerospace and defense, electrical, automotive and general industrial markets. As used in this Quarterly Report on Form 10-Q, the terms "NN," the "Company," "we," "our," or "us" refer to NN, Inc., and its subsidiaries. As of June 30, 2018, we had 51 facilities in North America, Europe, South America and China.

In January 2018, we implemented a new enterprise and management structure designed to accelerate growth and further balance our portfolio by aligning our strategic assets and businesses. Our businesses were reorganized into the Mobile Solutions, Power Solutions, and Life Sciences groups and are based principally on the end markets they serve. The Autocam Precision Components Group reported in our historical financial statements was renamed as Mobile Solutions. The Mobile Solutions group is focused on growth in the general industrial and automotive end markets. The Precision Engineered Products Group reported in our historical financial statements was bifurcated into two new groups – Power Solutions and Life Sciences. The Power Solutions group is focused on growth in the electrical and aerospace and defense end markets. The Life Sciences group is focused on growth in the medical end market.

### Basis of Presentation

The accompanying condensed consolidated financial statements have not been audited, except that the Condensed Consolidated Balance Sheet as of December 31, 2017, was derived from the audited consolidated financial statements included in our Annual Report on Form 10-K for the year ended December 31, 2017 (the "2017 Annual Report"), which we filed with the U.S. Securities and Exchange Commission (the "SEC"), on April 2, 2018. Certain prior period amounts have been reclassified to conform to the current period's presentation. Historical periods presented reflect reclassifications to reflect discontinued operations (see Note 2). Historical periods also reflect revisions that we disclosed in our 2017 Annual Report (see Note 17). In management's opinion, the accompanying unaudited condensed consolidated financial statements reflect all adjustments necessary to fairly state our results of operations for the three months and six months ended June 30, 2018 and 2017; financial position as of June 30, 2018, and December 31, 2017; and cash flows for the three months and six months ended June 30, 2018 and 2017, on a basis consistent with our audited consolidated financial statements other than the adoption of new accounting standards, such as revenue recognition. These adjustments are of a normal recurring nature and are, in the opinion of management, necessary to present fairly the Company's financial position and operating results for the interim periods.

Certain information and footnote disclosures normally included in the consolidated financial statements prepared in accordance with U.S. generally accepted accounting principles ("U.S. GAAP") have been condensed or omitted from the interim financial statements presented in this Quarterly Report on Form 10-Q. These unaudited condensed consolidated financial statements should be read in conjunction with our audited consolidated financial statements and accompanying notes included in the 2017 Annual Report. The results for the three months and six months ended June 30, 2018, are not necessarily indicative of results for the year ending December 31, 2018, or any other future periods.

Except for per share data or as otherwise indicated, all dollar amounts presented in the tables in these Notes to Condensed Consolidated Financial Statements are in thousands.

### Prior Periods' Financial Statement Revision

As disclosed in our 2017 Annual Report, we identified various misstatements in our previously issued 2016 and 2015 annual financial statements and interim periods in 2016 and 2017. These prior period errors related primarily to (i) accounting for income and franchise taxes, (ii) accounting for the gain on the disposition of a business, (iii) accounting for indemnification assets related to a prior acquisition, (iv) accounting for foreign currency transactions, (v) accounting for the translation of foreign subsidiary assets and joint venture, and (vi) other immaterial

errors, including errors that had previously been adjusted for as out of period corrections in the periods identified. We assessed the materiality of the misstatements on prior periods' financial statements in accordance with SEC Staff Accounting Bulletin ("SAB") Topic 1.M, Materiality, codified in Accounting

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Standards Codification ("ASC") Topic 250, Accounting Changes and Error Corrections, ("ASC 250") and concluded that the misstatements were not material to any prior annual or interim periods.

In accordance with ASC 250 (SAB Topic 1.N, Considering the Effects of Prior Year Misstatements when Quantifying Misstatements in Current Year Financial Statements), we revised our previously issued 2016 and 2015 annual financial statements in our 2017 Annual Report. Accordingly, in connection with this Quarterly Report, we are revising our Condensed Consolidated Statements of Operations and Comprehensive Income (Loss) and our Condensed Consolidated Statement of Cash Flows, the related notes, and other financial information for the three months and six months ended June 30, 2017, to correct for those misstatements that impacted such period. We will revise the remaining 2017 previously issued quarterly financial statements in connection with future 2018 filings on our Form 10-Q. Refer to Note 17 for reconciliations between as originally reported and as revised quarterly amounts.

Accounting Standards Recently Adopted

Revenue Recognition. On January 1, 2018, we adopted ASC Topic 606, Revenue from Contracts with Customers, ("ASC 606"). We adopted ASC 606 utilizing the modified retrospective transition method. Under this transition method, we recognized the cumulative effect of initially applying the new standard as an adjustment to the opening balance of retained earnings as of January 1, 2018, and applied the new standard beginning with the most current period presented to contracts that were not completed at the date of initial application. The adoption adjustment, which was less than $0.1 million, represents the net profit on certain contracts that were accounted for on a consignment basis under ASC Topic 605, Revenue Recognition, ("ASC 605") Under ASC 605, a sale was not recognized under these consignment contracts until the inventory was used by our customers. Under the new standard, revenue is recognized earlier since the transfer of control to our customers occurs upon shipment from our facilities as our customers have obtained the ability to direct the use of, and obtain substantially all of the remaining benefits from, the asset. Comparative information has not been restated and continues to be reported under the accounting standards in effect for those periods. We expect the impact of the adoption of the new standard to be immaterial to our results of operations on an ongoing basis. See Note 13 for the required disclosures related to the impact of adopting ASC 606 and a discussion of our updated policies related to revenue recognition and accounting for costs to obtain and fulfill a customer contract.

Definition of a Business. In January 2017, the Financial Accounting Standards Board ("FASB") issued ASU 2017-01, Business Combinations (Topic 805): Clarifying the Definition of a Business, which changes the definition of a business. The new guidance requires an entity to first evaluate whether substantially all of the fair value of the gross assets acquired is concentrated in a single identifiable asset or a group of similar identifiable assets. If that threshold is met, the set of assets and activities is not a business. If the threshold is not met, the entity evaluates whether the set meets the definition of a business. The new definition requires a business to include at least one substantive process and narrows the definition of outputs by more closely aligning it with how outputs are described in the new revenue recognition guidance. The new guidance was effective for us beginning on January 1, 2018. We have applied the new definition of a business prospectively to any transactions occurring in 2018 or later. The new guidance will have no effect on our historical financial statements.

Statement of Cash Flows. In August 2016, the FASB issued ASU 2016-15, Statement of Cash Flows (Topic 230): Classification of Certain Cash Receipts and Cash Payments (a consensus of the Emerging Issues Task Force). This guidance provides clarification on how certain cash receipts and cash payments are presented and classified on the statement of cash flows, with focus on eight specific areas in which cash flows have, in practice, been presented inconsistently. The guidance was effective for NN beginning January 1, 2018, and is required to be adopted using a retrospective approach if practicable.

The new cash flow guidance requires that cash payments for debt prepayment costs be classified as cash outflows for financing activities. We paid $31.6 million for debt prepayment costs in April 2017. These debt prepayment costs were previously classified as cash used by operating activities in 2017. Under the new guidance, these costs are reclassified to cash used by financing activities when these comparable periods are presented in future filings.

The new guidance also requires entities to make an accounting policy election regarding classification of distributions received from equity method investees. Existing guidance does not currently address how an entity should determine which distributions represent returns on versus returns of investment. The lack of specific guidance has resulted in

diversity in practice. The two allowable approaches are the “cumulative earnings” approach and the “nature of the distribution” approach, as defined by ASU 2016-15. Upon adoption of the new guidance on January 1, 2018, we utilized the cumulative earnings approach for classifying distributions received from our joint venture investment (see Note 8). This policy election is consistent with our historical accounting.

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Accounting Standards Not Yet Adopted

Leases. In February 2016, the FASB issued ASU 2016-02, Leases. ASU 2016-02 creates Topic 842, Leases, in the ASC and supersedes ASC 840, Leases. Entities that hold numerous equipment and real estate leases, in particular those with numerous operating leases, will be most affected by the new guidance. The lease accounting standard is effective for NN beginning January 1, 2019, with modified retrospective adoption required and early adoption permitted. The amendments in ASU 2016-02 are expected to impact our balance sheet by adding lease-related assets and liabilities. This may affect compliance with contractual agreements and loan covenants, if not addressed within the credit facility. We have performed inquiries within group locations and compiled information on operating and capital leases. We are using the results of these inquiries and compiled information to evaluate the impacts of the lease accounting standard on our financial position, results of operations, and related disclosures. Upon adoption, we expect to recognize a right-of-use asset and a lease liability for nearly all of our leases that are currently classified as operating leases and are therefore not recorded on the balance sheet. We are in the process of gathering information that will enable us to estimate the amounts of those assets and liabilities.

Goodwill. In January 2017, the FASB issued ASU 2017-04, Intangibles – Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment, that eliminates the requirement to calculate the implied fair value of goodwill (i.e., Step 2 of the current goodwill impairment test) to measure a goodwill impairment charge. Instead, entities will record an impairment charge based on the excess of a reporting unit's carrying amount over its fair value (i.e., measure the charge based on the current Step 1 test). The standard is effective for us beginning with impairment tests performed on or after January 1, 2020, with early adoption permitted. We are currently evaluating the impact this new guidance is expected to have on our financial position or results of operations and related disclosures.

Effects of Tax Reform in Other Comprehensive Income. In February 2018, the FASB issued guidance related to the impacts of the Tax Cuts and Jobs Act of 2017 ("Tax Act"). Under existing U.S. GAAP, the effects of changes in tax rates and laws on deferred tax balances are recorded as a component of income tax expense in the period in which the law was enacted. When deferred tax balances related to items originally recorded in accumulated other comprehensive income ("AOCI") are adjusted, certain tax effects become stranded in AOCI. The FASB issued ASU 2018-02, Income Statement – Reporting Comprehensive Income (Topic 220): Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income, that permits reclassification of certain income tax effects of the Act from AOCI to retained earnings. The guidance also requires certain disclosures about stranded tax effects. ASU 2018-02 is effective for us on January 1, 2019, with early adoption in any period permitted. Entities may adopt the guidance using either at the beginning of the period of adoption or retrospectively to each period in which the effect of the change in the U.S. federal corporate income tax rate in the Tax Act is recognized. We are in the process of evaluating adoption method and the effects of this new guidance on our financial statements.

Note 2. Discontinued Operations

On August 17, 2017, we completed the sale of our global precision bearing components business (the "PBC Business"). The PBC Business included all our facilities that were engaged in the production of precision steel balls, steel rollers, and metal retainers and automotive specialty products used primarily in the bearing industry. The sale of the PBC Business furthers management's long-term strategy to build a diversified industrial business with a comprehensive geographic footprint in attractive high-growth market segments. The PBC Business represented all of the Precision Bearing Components Group reportable segment disclosed in our historical financial statements.

In accordance with ASC 205-20, Presentation of Financial Statements – Discontinued Operations, the operating results of the PBC Business for the six months ended June 30, 2017, are classified as discontinued operations. The presentation of discontinued operations includes revenues and expenses of the discontinued operations, net of tax, as one line item on the Condensed Consolidated Statements of Operations and Comprehensive Income (Loss). All historical Condensed Consolidated Statements of Operations and Comprehensive Income (Loss) presented have been revised to reflect this presentation. Accordingly, results of the PBC Business have been excluded from continuing operations and group results for all periods presented in the condensed consolidated financial statements and the accompanying notes unless otherwise stated. The Condensed Consolidated Statement of Cash Flows for the six months ended June 30, 2017, includes cash flows of the PBC Business in each line item unless otherwise stated.

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The following table summarizes the major line items included in the results of operations of the discontinued operations.

| | Three Months Ended June 30, 2017 | Six Months Ended June 30, 2017 |
|---|---|---|
| Net sales | $ 67,928 | $ 136,687 |
| Cost of sales (exclusive of depreciation and amortization shown separately below) | 51,526 | 104,485 |
| Selling, general and administrative expense | 4,768 | 9,121 |
| Depreciation and amortization | 3,102 | 6,111 |
| Restructuring and integration expense | 300 | 429 |
| Income from operations | 8,232 | 16,541 |
| Interest expense (income) | 71 | 188 |
| Other expense (income), net | 20 | 18 |
| Income from discontinued operations before provision for income taxes | 8,141 | 16,335 |
| Provision for income taxes | 2,905 | 5,581 |
| Income from discontinued operations, net of tax | $ 5,236 | $ 10,754 |

The following table presents the significant noncash items and cash paid for capital expenditures of discontinued operations.

| | Six Months Ended June 30, 2017 |
|---|---|
| Depreciation and amortization | $ 6,111 |
| Acquisition of property, plant and equipment | $ 5,208 |

Note 3. Acquisitions

Bridgemedica, LLC

On February 22, 2018, we completed the acquisition of 100% of the assets of Bridgemedica, LLC (“Bridgemedica”). For accounting purposes, Bridgemedica meets the definition of a business and has been accounted for as a business combination. Bridgemedica is a medical device company that provides concept to supply solutions through design,

development engineering and manufacturing. Operating results of Bridgemedica are reported prospectively in our Life Sciences group after the acquisition date. We have finalized certain working capital adjustments and are in the process of completing the integration of the Bridgemedica business into our operations. Amounts recorded for preliminary goodwill and intangible assets are disclosed in Note 6 and Note 7, respectively, and are subject to completion of our integration procedures.

Paragon Medical, Inc.

On May 7, 2018, we acquired 100% of the stock of PMG Intermediate Holding Corporation, the parent company of Paragon Medical, Inc. (“Paragon Medical”) for a base purchase price of $375.0 million in cash, subject to certain adjustments. After estimated working capital and other closing adjustments, the cash purchase price was approximately $391.0 million which included $13.4 million in cash acquired. We paid cash of $392.2 million and recorded a receivable of approximately $1.3 million in other current assets for the balance. For accounting purposes, Paragon Medical meets the definition of a business and has been accounted for as a business combination. Paragon Medical is a medical device manufacturer which focuses on the orthopedic, case and tray, implant and instrument markets. This acquisition continues our strategic focus to expand our Life Sciences portfolio as well as create a balanced business by diversifying our products and finished device offerings. Operating results of Paragon Medical are reported prospectively from the date of acquisition in our Life Sciences group. We have performed a preliminary assessment of the opening balance sheet and purchase price allocation which is subject to completion of working capital adjustments and fair value estimates. Opening balance sheet deferred taxes have been recorded based on estimates made as of the acquisition date as well as information currently available to management. As estimates are refined and additional information is received throughout the measurement period, adjustments to opening deferred taxes will be recorded with an offsetting adjustment to goodwill. We incurred new debt in connection with the Paragon Medical acquisition as described in Note 10.

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The following table summarizes the preliminary purchase price allocation for the Paragon Medical acquisition.

| Fair value of assets acquired and liabilities assumed | May 7, 2018 |
|---|---|
| Cash and cash equivalents | $13,418 |
| Accounts receivable | 22,853 |
| Inventories | 23,606 |
| Other current assets | 937 |
| Property, plant and equipment | 69,322 |
| Intangible assets subject to amortization | 164,200 |
| Other non-current assets | 3,304 |
| Goodwill | 157,421 |
| Total assets acquired | $455,061 |
| Current liabilities | $16,767 |
| Deferred tax liability | 46,713 |
| Other non-current liabilities | 620 |
| Total liabilities assumed | $64,100 |
| Net assets acquired | $390,961 |

A combination of income, market, and cost approaches were used for the valuation where appropriate, depending on the asset or liability being valued. Valuation inputs in these models and analyses gave consideration to market participant assumptions. Acquired intangible assets are primarily customer relationships. As of June 30, 2018, intangible assets in connection with Paragon Medical were $163.3 million after post-acquisition amortization.

In connection with the Paragon Medical acquisition, we recorded goodwill, which represents the excess of the purchase price over the estimated fair value of tangible and intangible assets acquired, net of liabilities assumed. As of June 30, 2018, goodwill in connection with Paragon Medical was approximately $155.6 million after post-acquisition currency impacts. The goodwill is attributed primarily to Paragon Medical as a going concern, the assembled workforce, and the fair value of expected cost synergies, and revenue growth from combining the NN and Paragon Medical life sciences businesses. The going concern element represents the ability to earn a higher return on the combined assembled collection of assets and businesses of Paragon Medical than if those assets and businesses were to be acquired and managed separately. Approximately $2.8 million of the goodwill relates to prior asset acquisitions by Paragon Medical and is expected to be deducted for tax purposes.

Property, plant and equipment acquired primarily included machinery and equipment for use in manufacturing operations. Additionally, manufacturing sites and related facilities, including leasehold improvements, were acquired. We have performed a preliminary assessment of the fair value of property, plant and equipment using both the cost approach and the market approach. The preliminary assessment was supported where available by observable market data which includes consideration of obsolescence. We have performed a preliminary assessment of the fair value of intangible assets using the income approach, supported by market data, by using the relief from royalty and multi-period excess earnings methods.

We incurred approximately $4.9 million in acquisition related costs with respect to Paragon Medical during the six months ended June 30, 2018. Transaction costs were expensed as incurred and are included in the “Acquisition related costs excluded from selling, general and administrative expense” line item in the Condensed Consolidated Statements of Operations and Comprehensive Income (Loss). We expensed $12.9 million of financing costs related to the Paragon Medical acquisition during the six months ended June 30, 2018, which are included in the "Loss on extinguishment of debt and write-off of debt issuance costs" line item in the Condensed Consolidated Statements of Operations and Comprehensive Income (Loss). As required by the acquisition method of accounting, acquired inventories were recorded at their estimated fair value. Beginning May 7, 2018, our consolidated results of operations include the results of Paragon Medical. Since the date of the acquisition, net sales of $27.1 million and income from operations of $1.7 million has been included in our condensed consolidated financial statements.

The unaudited pro forma financial results shown in the table below for the three and six months ended June 30, 2018 and 2017, combine the consolidated results of NN and Paragon Medical giving effect to the Paragon Medical

acquisition as if it had been completed on January 1, 2017, the beginning of the comparable prior annual reporting period presented. The unaudited pro forma financial results do not give effect to any of our other acquisitions that occurred after January 1, 2017, and do not include any anticipated synergies or other assumed benefits of the Paragon Medical acquisition. This unaudited pro forma financial

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information is presented for informational purposes only and is not indicative of future operations or results had the Paragon Medical acquisition been completed as of January 1, 2017.

The unaudited pro forma financial results include certain adjustments for additional depreciation and amortization expense based upon the fair value step-up and estimated useful lives of Paragon Medical depreciable fixed assets and definite-life amortizable assets acquired. The provision for income taxes has also been adjusted for all periods, based upon the foregoing adjustments to historical results. The impact of adopting ASC 606 has been included based on an adoption date of January 1, 2018.

| | Three Months Ended June 30, | | Six Months Ended June 30, | |
|---|---|---|---|---|
| | 2018 | 2017 | 2018 | 2017 |
| Pro forma net sales | $210,902 | $193,578 | $420,731 | $384,846 |
| Pro forma income (loss) from continuing operations | $(12,017) | $(29,092) | $(20,078) | $(44,238) |
| Pro forma net income (loss) | $(12,017) | $(23,856) | $(20,078) | $(33,484) |
| Basic income (loss) from continuing operations per share | $(0.43) | $(1.06) | $(0.73) | $(1.62) |
| Diluted income (loss) from continuing operations per share | $(0.43) | $(1.06) | $(0.73) | $(1.62) |

Unaudited pro forma results for the six months ended June 30, 2017, include $14.8 million of inventory fair value adjustments, financing, integration, and transaction costs, net of tax, directly attributable to the acquisition which will not have an ongoing impact. No such costs are present in the unaudited pro forma results for the three months ended June 30, 2017.

Note 4. Segment Information

We determined our reportable segments under the provisions of U.S. GAAP related to disclosures about segments of an enterprise. Management has concluded that Mobile Solutions, Power Solutions, and Life Sciences each constitutes an operating segment as each engages in business activities for which it earns revenues and incurs expenses for which separate financial information is available, and this is the level at which the Chief Operating Decision Maker (“CODM”) reviews discrete financial information for purposes of allocating resources and assessing performance. In making this determination, management considered the form and content of the financial information that is regularly reviewed by the CODM. As described in Note 1, in January 2018, we implemented a new enterprise and management structure and reorganized our businesses into the Mobile Solutions, Power Solutions and Life Sciences groups based principally on the end markets they serve. In the first quarter of 2018, we began reporting our financial results based on these new reportable segments. Prior year amounts have been restated to conform to the current year presentation.

Mobile Solutions

Mobile Solutions is focused on growth in the general industrial and automotive end markets. We have developed an expertise in manufacturing highly complex, system critical components for fuel systems, engines and transmissions, power steering systems and electromechanical motors on a high-volume basis. This expertise has been gained through investment in technical capabilities, processes and systems, and skilled program management and product launch capabilities.

Power Solutions

Power Solutions is focused on growth in the electrical, and aerospace and defense end markets. Within this group we combine materials science expertise with advanced engineering and production capabilities to design and manufacture a broad range of high-precision metal and plastic components, assemblies and finished devices used in applications ranging from power control to flight control and for military devices.

We manufacture a variety of products including electrical contacts, connectors, contact assemblies and precision stampings for the electrical end market and high precision products for the aerospace and defense end markets utilizing our extensive process technologies for optical grade plastics, thermally conductive plastics, titanium, Inconel, magnesium and electroplating.

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Life Sciences

Life Sciences is focused on growth in the medical end market. Within this group we combine advanced engineering and production capabilities to design and manufacture a broad range of high-precision metal and plastic components, assemblies and finished devices.

We manufacture a variety of components, assemblies and instruments, such as surgical knives, bioresorbable implants, surgical staples, cases and trays, orthopedic implants and tools, laparoscopic devices, and drug delivery devices for the medical and life sciences end market.

Segment Results

The following table presents results of continuing operations for each reportable segment.

| | Mobile Solutions | Power Solutions | Life Sciences | Corporate and Consolidations | | Total Continuing Operations |
|---|---|---|---|---|---|---|
| Three Months Ended June 30, 2018 | | | | | | |
| Net sales | $88,079 | $49,820 | $59,153 | $ (703) | (a) | $196,349 |
| Income (loss) from operations | $7,380 | $6,000 | $2,041 | $ (15,713) | | $(292) |
| Interest expense | | | | | | (15,988) |
| Other | | | | | | (14,825) |
| Loss from continuing operations before benefit for income taxes and share of net income from joint venture | | | | | | $(31,105) |
| Six Months Ended June 30, 2018 | | | | | | |
| Net sales | $177,873 | $98,502 | $90,353 | $ (1,231) | (a) | $365,497 |
| Income (loss) from operations | $17,165 | $11,233 | $6,245 | $ (31,242) | | $3,401 |
| Interest expense | | | | | | (27,984) |
| Other | | | | | | (14,512) |
| Loss from continuing operations before benefit for income taxes and share of net income from joint venture | | | | | | $(39,095) |
| Three Months Ended June 30, 2017 | | | | | | |
| Net sales | $86,658 | $48,734 | $23,114 | $ (559) | | $157,947 |
| Income (loss) from operations | $10,688 | $6,819 | $3,798 | $ (8,663) | | $12,642 |
| Interest expense | | | | | | (12,338) |
| Other | | | | | | (40,025) |
| Loss from continuing operations before benefit for income taxes and share of net income from joint venture | | | | | | $(39,721) |
| Six Months Ended June 30, 2017 | | | | | | |
| Net sales | $173,104 | $97,158 | $46,243 | $ (1,003) | | $315,502 |
| Income (loss) from operations | $21,289 | $13,614 | $7,420 | $ (15,829) | | $26,494 |
| Interest expense | | | | | | (27,177) |
| Other | | | | | | (39,215) |
| Loss from continuing operations before benefit for income taxes and share of net income from joint venture | | | | | | $(39,898) |

(a) Includes eliminations of intersegment transactions occurring during the ordinary course of business.

| | Total Assets as of | |
|---|---|---|
| | June 30, 2018 | December 31, 2017 |
| Mobile Solutions | $446,111 | $428,321 |
| Power Solutions | 390,656 | 383,063 |
| Life Sciences | 811,299 | 355,703 |

| | | |
|---|---|---|
| Corporate and Consolidations | 113,018 | 307,916 |
| Total Continuing Operations | $1,761,084 | $1,475,003 |

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The Paragon Medical business acquired on May 7, 2018, contributed $27.1 million to net sales and $1.7 million to income from operations in the Life Sciences group after the acquisition date through June 30, 2018. The Bridgemedica business acquired on February 22, 2018, contributed $3.6 million to net sales and less than $0.1 million to income from operations in the Life Sciences group after the acquisition date through June 30, 2018.

Note 5. Inventories

Inventories are comprised of the following amounts:

| | June 30, 2018 | December 31, 2017 |
|---|---|---|
| Raw materials | $48,895 | $ 37,337 |
| Work in process | 42,311 | 27,669 |
| Finished goods | 24,930 | 17,611 |
| Inventories | $116,136 | $ 82,617 |

Note 6. Goodwill

The following table shows changes in the carrying amount of goodwill.

| | Mobile Solutions | Power Solutions | Life Sciences | Total |
|---|---|---|---|---|
| Balance as of December 31, 2017 | $74,147 | $201,881 | $178,584 | $454,612 |
| Currency impacts | (439) | (384) | (1,847) | (2,670) |
| Goodwill acquired in acquisitions | — | — | 165,454 | 165,454 |
| Adjustments to goodwill | — | — | 418 | 418 |
| Balance as of June 30, 2018 | $73,708 | $201,497 | $342,609 | $617,814 |

The goodwill acquired in 2018 is related to the Paragon Medical and Bridgemedica acquisitions as described in Note 3 and is derived from the value of the businesses acquired. We recorded $157.4 million of goodwill related to the Paragon Medical acquisition and $8.0 million of goodwill related to the Bridgemedica acquisition during the six months ended June 30, 2018. We are in the process of analyzing the opening balance sheets and purchase price allocations for these acquisitions. The preliminary fair value of the businesses acquired was based on management business plans and future performance estimates which are subject to a high degree of management judgment and complexity. Actual results may differ from these projections and the differences may be material, leading to measurement period adjustments of this goodwill.

In the first quarter of 2018, as a result of the changes in our organizational and management structure, goodwill was reassigned to operating segments using a relative fair value allocation. For further information on the organizational changes, see Note 1.

Note 7. Intangible Assets, Net

The following table shows changes in the carrying amount of intangible assets, net.

| | Mobile Solutions | Power Solutions | Life Sciences | Total |
|---|---|---|---|---|
| Balance as of December 31, 2017 | $39,446 | $105,030 | $93,226 | $237,702 |
| Amortization | (1,770) | (5,725) | (5,490) | (12,985) |
| Currency impacts | (18) | 52 | — | 34 |
| Intangible assets acquired in acquisitions | — | — | 169,913 | 169,913 |
| Balance as of June 30, 2018 | $37,658 | $99,357 | $257,649 | $394,664 |

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The following table shows the nature and preliminary weighted average estimated useful lives of intangible assets acquired during the six months ended June 30, 2018. Actual results may differ from these projections and the differences may be material, leading to measurement period adjustments of these intangible assets.

| | Gross Carrying Value as of Acquisition Date | Weighted Average Estimated Useful Life in Years |
|---|---|---|
| Customer relationships | $ 144,900 | 20 |
| Trademark and trade name | 15,400 | 29 |
| Other | 9,613 | 1 |
| Total intangible assets acquired in current year | $ 169,913 | 19 |

As of January 1, 2018, as a result of the changes in our organizational and management structure, intangible assets were reassigned to operating segments using a relative fair value allocation. For further information on the organizational changes, see Note 1.

Note 8. Investment in Joint Venture

We own a 49% investment in a joint venture located in Wuxi, China, called Wuxi Weifu Autocam Precision Machinery Company, Ltd. (the “JV”). The JV is jointly controlled and managed, and we account for it under the equity method.

The following table summarizes activity related to our investment in the JV.

| | |
|---|---|
| Balance as of December 31, 2017 | $39,822 |
| Share of cumulative earnings | 1,718 |
| Accretion of basis difference from purchase accounting | (240) |
| Foreign currency translation loss | (785) |
| Balance as of June 30, 2018 | $40,515 |

We recognized sales to the JV of $0.2 million and approximately $0.1 million during the six months ended June 30, 2018 and 2017, respectively.

The following tables show selected financial data of the JV.

| | June 30, 2018 | December 31, 2017 |
|---|---|---|
| Current assets | $52,856 | $ 47,600 |
| Non-current assets | 33,985 | 24,763 |
| Total assets | $86,841 | $ 72,363 |
| Current liabilities | $38,109 | $ 26,165 |
| Total liabilities | $38,109 | $ 26,165 |

| | Three Months Ended June 30, | | Six Months Ended June 30, | |
|---|---|---|---|---|
| | 2018 | 2017 | 2018 | 2017 |
| Net sales | $18,111 | $17,473 | $36,114 | $36,584 |
| Cost of sales | $15,537 | $13,724 | $30,684 | $28,160 |
| Income from operations | $2,157 | $3,385 | $4,665 | $7,796 |
| Net income | $1,552 | $2,770 | $3,504 | $6,459 |

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Note 9. Income Taxes

On December 22, 2017, the U. S. government enacted comprehensive tax legislation. The Tax Act reduces the maximum U.S. federal corporate income tax rate from 35% to 21% and creates new taxes on certain foreign sourced earnings. In response to the Tax Act, the Securities and Exchange Commission issued Staff Accounting Bulletin No. 118 ("SAB 118") which allows issuers to recognize provisional estimates of the impact of the Tax Act in their financial statements, or in circumstances where estimates cannot be made, to disclose and recognize at a later date. For the year ended December 31, 2017, we included in our financial statements provisional charges for the revaluation of our net domestic deferred tax assets and a one-time charge for the deemed repatriation of historic unremitted earnings. During the six months ended June 30, 2018, there were no additional changes to the provisional amounts recorded as of December 31, 2017. The accounting is expected to be completed and disclosed within the one-year measurement period as allowed by SAB 118.

Our effective tax rate from continuing operations was 19.1% and 18.2% for the three months and six months ended June 30, 2018, respectively, and 30.5% and 31.3% for the three months and six months ended June 30, 2017, respectively. Our 2018 effective tax rates differ from the U.S. federal statutory tax rate of 21% due to permanent differences including certain provisions of the Tax Act, specifically the base-broadening provision which imposed a new minimum tax on global intangible low-tax income ("GILTI"). Our 2017 effective tax rates differ from the U.S. federal statutory tax rate of 34% due primarily to earnings outside the U.S. which were taxed at rates lower than the U.S. federal statutory rate.

During the six months ended June 30, 2018, we finalized our accounting policy decision with respect to the new GILTI tax rules and have concluded that GILTI will be treated as a periodic charge in the year in which it arises. Therefore, we will not record deferred taxes for the basis associated with GILTI earnings.

During the third quarter of 2017, the Internal Revenue Service commenced an examination of the federal tax return for the pre-acquisition period of January 1, 2015, through October 19, 2015, for Precision Engineered Products Holdings, LLC, our wholly-owned subsidiary. The examination is ongoing as of June 30, 2018.

Note 10. Debt

The following table presents debt balances as of June 30, 2018, and December 31, 2017.

| | June 30, 2018 | December 31, 2017 |
|---|---|---|
| $545.0 million Senior Secured Term Loan B ("Senior Secured Term Loan") bearing interest at the greater of 0.75% or one-month LIBOR (2.09% at June 30, 2018), plus an applicable margin of 3.75% at June 30, 2018, expiring October 19, 2022 | $534,250 | $534,250 |
| $300.0 million Incremental Term Loan ("Incremental Term Loan") bearing interest at one-month LIBOR (2.09% at June 30, 2018), plus an applicable margin of 3.25% at June 30, 2018, expiring April 3, 2021 | 285,000 | 291,000 |
| $143.0 million Senior Secured Revolver ("Senior Secured Revolver") bearing interest at one-month LIBOR (2.09% at June 30, 2018) plus an applicable margin of 3.5% at June 30, 2018, expiring October 19, 2020 | 67,962 | — |
| $200.0 million Second Lien Facility ("Second Lien") bearing interest at one-month LIBOR (2.09% at June 30, 2018), plus an applicable margin of 8.0% at June 30, 2018, expiring April 19, 2023 | 200,000 | — |
| International lines of credit and other loans | 4,962 | 3,315 |
| Total | 1,092,174 | 828,565 |
| Less current maturities of long-term debt | 29,809 | 17,283 |
| Principal, net of current portion | 1,062,365 | 811,282 |
| Less unamortized debt issuance costs | 21,931 | 20,477 |
| Long-term debt, net of current portion | $1,040,434 | $790,805 |

We capitalized interest costs amounting to $0.3 million and $0.3 million in the three months ended June 30, 2018 and 2017, and $0.5 million and $0.6 million in the six months ended June 30, 2018 and 2017, related to construction in progress.

Collectively, our Senior Secured Term Loan, Incremental Term Loan, and Senior Secured Revolver comprise our credit facility. Our credit facility is subject to certain financial covenants based on a consolidated net leverage ratio, as defined in the credit

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facility agreement. The financial covenants are effective when we have outstanding amounts drawn on our Senior Secured Revolver on the last day of any fiscal quarter and become more restrictive over time. We had $68.0 million outstanding balance on the Senior Secured Revolver as of June 30, 2018, and were in compliance with all covenants under our credit facility and expect to be in compliance with all covenants through June 30, 2019.

Second Lien Credit Agreement

In connection with the Paragon Medical acquisition, we, certain of our subsidiaries named therein, SunTrust Bank, as Administrative Agent, SunTrust Robinson Humphrey, Inc. as Lead Arranger and Bookrunner, and the lenders named therein entered into a Second Lien Credit Agreement (the “Second Lien Credit Agreement”) pursuant to which SunTrust and the other lenders extended to us a $200.0 million secured second lien term loan facility (the “Second Lien Facility”). We utilized the net proceeds from the Second Lien Facility, together with cash on hand, to pay the Paragon Medical purchase price and fees and expenses related to the acquisition. The Second Lien Facility is collateralized by all of our assets. The Second Lien Facility matures on April 19, 2023, and bears interest at either (i) a base rate, plus an applicable margin, or (ii) the greater of the London Interbank Offered Rate (“LIBOR”) or 1.00%, plus an applicable margin. The initial applicable margin for all borrowings under the Second Lien Facility is 7.00% per annum with respect to base rate borrowings and 8.00% per annum with respect to LIBOR borrowings. We may voluntarily prepay outstanding loans under the Second Lien Facility, in whole or in part without premium or penalty at any time on or after May 7, 2020. We are subject to a prepayment penalty of 2% of the amount of such loans that we prepay before May 7, 2019. If we prepay any outstanding loans after May 7, 2019, but prior to May 7, 2020, we are subject to a prepayment penalty of 1% of the amount prepaid. The Second Lien Credit Agreement requires us to prepay outstanding loans, subject to certain exceptions, with: (i) a variable percentage of excess cash flow; (ii) 100% of the net cash proceeds of non-ordinary course asset sales or other dispositions of property, and 100% of the net cash proceeds from certain insurance and condemnation events with respect to our assets, subject to customary thresholds and reinvestment rights; and (iii) 100% of the net cash proceeds from the issuance or incurrence of debt obligations for borrowed money not permitted by the Second Lien Credit Agreement.

Amendment to Credit Facility

On May 7, 2018, we entered into an amendment to our existing credit facility to permit the Paragon Medical acquisition, to permit the Second Lien Credit Agreement, and to amend certain covenants. We paid $16.7 million of debt issuance costs related to the amendment. A total of $12.9 million is included in the "Loss on extinguishment of debt and write-off of debt issuance costs" line on the Condensed Consolidated Statements of Operations and Comprehensive Income (Loss). The remaining $3.8 million is capitalized as a reduction of long-term debt.

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Note 11. Restructuring and Integration

The following table summarizes restructuring and integration charges incurred for the three months and six months ended June 30, 2018 and 2017.

| | Three Months Ended June 30, 2018 | | | | |
|---|---|---|---|---|---|
| | Mobile Solutions | Power Solutions | Life Sciences | Corporate and Consolidations | Total |
| Severance and other employee costs | $— | $— | $ 1,596 | $ — | $1,596 |
| Other | (5) | — | — | — | (5) |
| Total | $(5) | $— | $ 1,596 | $ — | $1,591 |

| | Six Months Ended June 30, 2018 | | | | |
|---|---|---|---|---|---|
| | Mobile Solutions | Power Solutions | Life Sciences | Corporate and Consolidations | Total |
| Severance and other employee costs | $— | $— | $ 1,596 | $ 728 | $2,324 |
| Other | 22 | — | — | — | 22 |
| Total | $22 | $— | $ 1,596 | $ 728 | $2,346 |

| | Three Months Ended June 30, 2017 | | | | |
|---|---|---|---|---|---|
| | Mobile Solutions | Power Solutions | Life Sciences | Corporate and Consolidations | Total |
| Severance and other employee costs | $6 | $— | $ — | $ — | $6 |
| Total | $6 | $— | $ — | $ — | $6 |

| | Six Months Ended June 30, 2017 | | | | |
|---|---|---|---|---|---|
| | Mobile Solutions | Power Solutions | Life Sciences | Corporate and Consolidations | Total |
| Severance and other employee costs | $17 | $— | $ — | $ — | $17 |
| Total | $17 | $— | $ — | $ — | $17 |

The following table summarizes restructuring and integration reserve activity for the six months ended June 30, 2018.

| | Reserve Balance as of December 31, 2017 | Charges | Non-cash Adjustments | Cash Reductions | Reserve Balance as of June 30, 2018 |
|---|---|---|---|---|---|
| Severance and other employee costs | $ — | $ 2,324 | $ — | $ (252) | $ 2,072 |
| Site closure and other associated costs | 1,099 | 22 | (61) | (740) | 320 |
| Total | $ 1,099 | $ 2,346 | $ (61) | $ (992) | $ 2,392 |

We recognized severance costs of $0.7 million in the six months ended June 30, 2018, at corporate headquarters related to the restructuring of our former Precision Engineered Products Group to form the Power Solutions and Life Sciences groups effective January 2, 2018.

We recognized severance costs of $1.6 million in the six months ended June 30, 2018, in our Life Sciences group related to the integration of Paragon Medical into our existing business after the acquisition.

The amount accrued for restructuring and integration costs represents what we expect to pay over the next 2.7 years. We expect to pay $1.1 million within the next twelve months.

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Note 12. Commitments and Contingencies

Brazil ICMS Tax Matter

Prior to the acquisition of Autocam Corporation in 2014 ("Autocam"), Autocam's Brazilian subsidiary received notification from the Brazilian tax authorities regarding ICMS (state value added tax or VAT) tax credits claimed on intermediary materials (tooling and perishable items) used in the manufacturing process. The Brazilian tax authority notification disallowed state ICMS credits claimed on intermediary materials based on the argument that these items are not intrinsically related to the manufacturing processes. Autocam Brazil filed an administrative defense with the Brazilian tax authority arguing, among other matters, that it should qualify for an ICMS tax credit, contending that the intermediary materials are directly related to the manufacturing process.

We believe that we have substantial legal and factual defenses, and we plan to defend our interests in this matter vigorously. While we believe a loss is not probable, we estimate the range of possible losses related to this assessment is from $0 to $6.0 million. No amount was accrued at June 30, 2018, for this matter. There was no material change in the status of this matter from December 31, 2017, to June 30, 2018.

We are entitled to indemnification from the former shareholders of Autocam, subject to the limitations and procedures set forth in the agreement and plan of merger relating to the Autocam acquisition. Management believes the indemnification would include amounts owed for the tax, interest and penalties related to this matter.

All Other Legal Matters

All other legal proceedings are of an ordinary and routine nature and are incidental to our operations. Management believes that such proceedings should not, individually or in the aggregate, have a material adverse effect on our business, financial condition, results of operations or cash flows. In making that determination, we analyze the facts and circumstances of each case at least quarterly in consultation with our attorneys and determine a range of reasonably possible outcomes.

Note 13. Revenue from Contracts with Customers

We adopted ASC 606 on January 1, 2018, using the modified retrospective transition method for all contracts not completed as of the date of adoption. The reported results for 2018 reflect the application of ASC 606 while the reported results for 2017 were prepared under the guidance of ASC 605. The adoption of ASC 606 represents a change in accounting principle that will more closely align revenue recognition with the delivery of our goods and will provide financial statement readers with enhanced disclosures. In accordance with ASC 606, revenue is recognized when a customer obtains control of promised goods in an amount that reflects the consideration we expect to be entitled to receive in exchange for those goods. To the extent that transaction price includes variable consideration, we estimate the amount of variable consideration that should be included in the transaction price utilizing the expected value method or the most likely amount method depending on the nature of the variable consideration. Variable consideration is included in the transaction price if, in management's judgment, it is probable that a significant future reversal of cumulative revenue under the contract will not occur.

Revenue is recognized when control of the good or service is transferred to the customer either at a point in time or, in limited circumstances, as our services are rendered over time. Revenue is measured as the amount of consideration we expect to receive in exchange for transferring goods or services.

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The following tables summarize sales to external customers by major source.

| | Six Months Ended June 30, 2018 | | | | |
|---|---|---|---|---|---|
| | Mobile Solutions | Power Solutions | Life Sciences | Intersegment Sales Eliminations | Total |
| United States | $97,797 | $82,052 | $78,994 | $ (1,231 ) | $257,612 |
| China | 23,162 | 2,444 | 1,438 | — | 27,044 |
| Mexico | | 340 | 52,811 | | |
| Total share-based cost | $ 104,097 | $ 192,854 | | | |

To compute compensation expense in 2009 and 2008 the Company estimated the fair value of each option award on the date of grant using the Black-Scholes model. The Company based the expected volatility assumption on a volatility index of peer companies as the Company did not have a sufficient number of years of historical volatility of its common stock for the application of Statement 123 (R). The expected term of options granted represents the period of time that options are expected to be outstanding. The Company estimated the expected term of stock options by the simplified method as prescribed in Staff Accounting Bulletin Nos. 107 and 110. The expected forfeiture rates are based on the historical employee forfeiture experiences. To determine the risk-free interest rate, the Company utilized the U.S. Treasury yield curve in effect at the time of grant with a term consistent with the expected term of the Company’s awards. The Company has not declared a dividend on its common stock since its inception and has no intentions of declaring a dividend in the foreseeable future and therefore used a dividend yield of zero.

MANHATTAN PHARMACEUTICALS, INC
(A Development Stage Company)
NOTES TO CONDENSED FINANCIAL STATEMENTS

The following table shows the weighted average assumptions the Company used to develop the fair value estimates for the determination of the compensation charges in 2009 and 2008:

| | Three months ended March 31, | |
|---|---|---|
| | 2009 | 2008 |
| Expected volatility | 94% | 93% |
| Dividend yield | - | - |
| Expected term (in years) | 6 | 6 |
| Risk-free interest rate | 1.88% | 2.81 |

The Company has shareholder-approved incentive stock option plans for employees under which it has granted non-qualified and incentive stock options. In December 2003, the Company established the 2003 Stock Option Plan (the "2003 Plan"), which provided for the granting of up to 5,400,000 options to officers, directors, employees and consultants for the purchase of stock. In August 2005, the Company increased the number of shares of common stock reserved for issuance under the 2003 Plan by 2,000,000 shares. In May 2007, the Company increased the number of shares of common stock reserved for issuance under the 2003 Plan by 3,000,000 shares. At March 31, 2009, 10,400,000 shares were authorized for issuance. The options have a maximum term of 10 years and vest over a period determined by the Company's Board of Directors (generally 3 years) and are issued at an exercise price equal to or greater than the fair market value of the shares at the date of grant. The 2003 Plan expires on December 10, 2013 or when all options have been granted, whichever is sooner. At March 31, 2009, options to purchase 9,496,596 shares were outstanding, 27,776 shares of common stock were issued and there were 875,628 shares reserved for future grants under the 2003 Plan.

In July 1995, the Company established the 1995 Stock Option Plan (the"1995 Plan"), which provided for the granting of options to purchase up to 130,000 shares of the Company's common stock to officers, directors, employees and consultants. The 1995 Plan was amended several times to increase the number of shares reserved for stock option grants. In June 2005 the 1995 Plan expired and no further options can be granted. At March 31, 2009 options to purchase 1,137,240 shares were outstanding and no shares were reserved for future stock option grants under the 1995 Plan.

MANHATTAN PHARMACEUTICALS, INC
(A Development Stage Company)
NOTES TO CONDENSED FINANCIAL STATEMENTS

A summary of the status of the Company's stock options as of March 31, 2009 and changes during the period then ended is presented below:

| | Shares | Weighted average exercise price | Weighted Average Remaining Contractual Term (years) | Aggregate Intrinsic Value |
|---|---|---|---|---|
| Outstanding at December 31, 2008 | 10,633,836 | $ 0.938 | | |
| Granted | - | | | |
| Exercised | - | | | |
| Cancelled | - | | | |
| Outstanding at March 31, 2009 | 10,633,836 | $ 0.938 | 6.690 | $ - |
| | | | | |
| Exercisable at March 31, 2009 | 9,108,010 | $ 1.022 | 6.370 | $ - |
| | | | | |
| Weighted-average fair value of options granted during the three month period ended March 31, 2009 | None issued | | | |

As of March 31, 2009, the total compensation cost related to nonvested option awards not yet recognized is $321,569. The weighted average period over which it is expected to be recognized is approximately 1 year.

5. COMMITMENTS AND CONTINGENCIES

Swiss Pharma

The Company has been involved in an arbitration proceeding in Switzerland with Swiss Pharma Contract LTD ("Swiss Pharma"), a clinical site that the Company used in one of its obesity trials. On September 5, 2008, the sole arbitrator in Switzerland rendered an award in favor of Swiss Pharma, awarding to Swiss Pharma a total of approximately $646,000 which amount includes a contract penalty of approximately $323,000, a final services invoice of approximately $48,000, reimbursement of certain of Swiss Pharma's legal and other expenses incurred in the arbitration process of approximately $245,000, reimbursement of arbitration costs of approximately $13,000 and interest through September 5, 2008 of approximately $17,000. Further, the arbitrator ruled that the Company must pay interest of 5% per annum on approximately $371,000, the sum of the contract penalty of approximately $323,000 and the final services invoice of approximately $48,000, from October 12, 2007 until paid.

The Company had previously recognized a liability to Swiss Pharma in the amount of approximately $104,000 for the final services invoice. The remainder of the award, approximately $542,000, was expensed in September 2008. The Company will continue to accrue interest at 5% per annum on the approximate $371,000 until such amount has been settled.

The Company does not have sufficient cash or other current assets to satisfy the arbitrator's award.

On January 22, 2009, the Company received notice that Swiss Pharma submitted a petition to the Supreme Court of New York State, County of New York seeking to confirm and to enter a judgment on the arbitration award. On February 17, 2009, the Company filed an answer to that complaint. A hearing has not yet been scheduled.

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Employment Agreement

The Company has an employment agreement with one employee for the payment of an annual base salary of $300,000 as well as performance based bonuses. This agreement has a remaining term of three months and a remaining obligation of $83,000 as of March 31, 2009. As per the terms of the Secured 12% Notes sold in the fourth quarter of 2008 and the first quarter of 2009 management, comprised of the two employees, including one under contract, has agreed to reduce their salaries effective as of October 1, 2008. If the Company sells at least $1.5 million but less than $2 million of Secured 12% Notes then their salaries shall be reduced by 20%. The Company sold $1.725 million of Secured 12% Notes, management therefore was paid 80% of their salaries during the fourth quarter of 2008. Also as per the terms of the Secured 12% Notes the reduction in management's salaries shall be reduced to 10% if the Company realizes gross proceeds of $500,000 or more from other sources and there will be no reduction if the Company realizes gross proceeds of $1,000,000 or more from other sources. In February 2009 the Company received a $500,000 milestone payment from the Hedrin JV; therefore management's salaries are currently reduced by 10%.

6. JOINT VENTURE

In February 2008, the Company and Nordic Biotech Advisors ApS through its investment fund Nordic Biotech Venture Fund II K/S ("Nordic") entered into a 50/50 joint venture agreement (the "Hedrin JV Agreement") to develop and commercialize the Company's North American rights (under license) to its Hedrin product.

Pursuant to the Hedrin JV Agreement, Nordic formed a new Danish limited partnership, Hedrin Pharmaceuticals K/S, (the "Hedrin JV") and provided it with initial funding of $2.5 million and the Company assigned and transferred its North American rights in Hedrin to the Hedrin JV in return for a $2.0 million cash payment from the Hedrin JV and equity in the Hedrin JV representing 50% of the nominal equity interests in the Hedrin JV. At closing the Company recognized an investment in the Hedrin JV of $250,000 and an exchange obligation of $2,054,630. The exchange obligation represents the Company's obligation to Nordic to issue the Company's common stock in exchange for all or a portion of Nordic's equity interest in the Hedrin JV upon the exercise by Nordic of the put issued to Nordic in the Hedrin JV Agreement transaction. The put is described below.

The original terms of the Hedrin JV Agreement also provided that should the Hedrin JV be successful in achieving a payment milestone, namely that by September 30, 2008, the FDA determines to treat Hedrin as a medical device, Nordic will purchase an additional $2.5 million of equity in the Hedrin JV, whereupon the Hedrin JV will pay the Company an additional $1.5 million in cash and issue additional equity in the JV valued at $2.5 million, thereby maintaining the Company's 50% ownership interest in the Hedrin JV. These terms have been amended as described below.

In June 2008, the Hedrin JV Agreement was amended (the "Hedrin JV Amended Agreement"). Under the amended terms Nordic invested an additional $1.0 million, for a total of $3.5 million, in the Hedrin JV and made an advance of $250,000 to the Hedrin JV and the Hedrin JV made an additional $1.0 million payment, for a total of $3.0 million, to the Company. The Hedrin JV also distributed additional ownership equity sufficient for each of the Company and Nordic to maintain their ownership interest at 50%. The FDA classified Hedrin as a Class III medical device in February 2009. Under the amended terms, upon attaining this classification of Hedrin by the FDA, Nordic invested an additional $1.25 million, for a total investment of $5 million, into the Hedrin JV, the Hedrin JV paid an additional $0.5 million, for a total of $3.5 million, to the Company and the $250,000 that Nordic advanced to the Hedrin JV in June became an equity investment in the Hedrin JV by Nordic. The Hedrin JV is now obligated to issue to the

Company and Nordic additional ownership interest in the Hedrin JV, thereby maintaining each of the Company's and Nordic's 50% ownership interest in the Hedrin JV.

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In February 2009, the Company's exchange obligation increased by $1,000,000 and the Company's investment in the Hedrin JV increased by $500,000 as a result of the investment by Nordic of an additional $1.25 million into the Hedrin JV, the reclassification of the advance made by Nordic in June 2008 to the Hedrin JV of $250,000 into an equity interest and the payment of $500,000 by the Hedrin JV to the Company. At March 31, 2009, the Company's exchange obligation is $3,949,176.

During the three month periods ended March 31, 2009 and 2008, the Company recognized $135,786 and $19,873, respectively, of equity in the losses of the Hedrin JV. This reduced the carrying value of its investment in the Hedrin JV to $364,214 at March 31, 2009. As of March 31, 2009, the Hedrin JV had cumulative losses since inception of $771,572, the Company's share of the losses is $385,786, equity in losses of Hedrin JV previous recognized was $250,000 leaving a $135,786 share of the cumulative losses of the Hedrin JV to be recognized by the Company at March 31, 2009.

Nordic has an option to put all or a portion of its equity interest in the Hedrin JV to the Company in exchange for the Company's common stock. The shares of the Company's common stock to be issued upon exercise of the put will be calculated by multiplying the percentage of Nordic's equity in the Hedrin JV that Nordic decides to put to the Company multiplied by the dollar amount of Nordic's investment in Limited Partnership divided by $0.09, as adjusted from time to time. The put option is exercisable immediately and expires at the earlier of ten years or when Nordic's distributions from the Limited Hedrin JV exceed five times the amount Nordic invested in the Hedrin JV.

The Company has an option to call all or a portion of Nordic's equity interest in the Hedrin JV in exchange for the Company's common stock. The Company cannot begin to exercise its call until the price of the Company's common stock has closed at or above $1.40 per share for 30 consecutive trading days. During the first 30 consecutive trading day period in which the Company's common stock closes at or above $1.40 per share the Company can exercise up to 25% of its call option. During the second 30 consecutive trading day period in which the Company's common stock closes at or above $1.40 per share the Company can exercise up to 50% of its call option on a cumulative basis. During the third 30 consecutive trading day period in which the Company's common stock closes at or above $1.40 per share the Company can exercise up to 75% of its call option on a cumulative basis. During the fourth 30 consecutive trading day period in which the Company's common stock closes at or above $1.40 per share the Company can exercise up to 100% of its call option on a cumulative basis. The shares of the Company's common stock to be issued upon exercise of the call will be calculated by multiplying the percentage of Nordic's equity in the Limited Partnership that the Company calls, as described above, multiplied by the dollar amount of Nordic's investment in the Hedrin JV divided by $0.09. Nordic can refuse the Company's call by either paying the Company up to $1.5 million or forfeiting all or a portion of their put, calculated on a pro rata basis for the percentage of the Nordic equity interest called by the Company.

The Hedrin JV is responsible for the development and commercialization of Hedrin for the North American market and all associated costs including clinical trials, if required, regulatory costs, patent costs, and future milestone payments owed to T&R, the licensor of Hedrin.

The Hedrin JV has engaged the Company to provide management services to the Limited Partnership in exchange for a management fee. For the three month periods ended March 31, 2009 and 2008, the Company has recognized $108,845 and $51,496, respectively, of other income from management fees earned from the Hedrin JV which is included in the Company's condensed statements of operations for the three month periods ended March 31, 2009 and 2008 as a component of interest and other income.

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Nordic paid to the Company a non-refundable fee of $150,000 at the closing for the right to receive a warrant covering 11.1 million shares of the Company's common stock, as adjusted due to the 12% Notes Transaction, see note 11, exercisable for $0.09 per share, as adjusted due to the 12% Notes Transaction, see note 11. The warrant is issuable 90 days from closing, provided Nordic has not exercised all or a part of its put, as described below. The Company issued the warrant to Nordic on April 30, 2008. The per share exercise price of the warrant was initially based on the volume weighted average price of the Company's common stock for the period prior to the signing of the Hedrin JV Agreement and has been subsequently adjusted due to the 12% Notes Transaction, see Note 8.

The Hedrin JV's Board consists of 4 members, 2 appointed by the Company and 2 appointed by Nordic. Nordic has the right to appoint one of the directors as chairman of the Board. The chairman has certain tie breaking powers.

Nordic has the right to nominate a person to serve on the Company's Board of Directors. Nordic has nominated a person, however, that person has declined to stand for appointment to the Company's Board of Directors.

The Company granted Nordic registration rights for the shares to be issued upon exercise of the warrant, the put or the call. The Company filed an initial registration statement on May 1, 2008. The registration statement was declared effective on October 15, 2008. The Company is required to file additional registration statements, if required, within 45 days of the date the Company first knows that such additional registration statement was required. The Company is required to use commercially reasonable efforts to cause the additional registration statements to be declared effective by the Securities and Exchange Commission ("SEC") within 105 calendar days from the filing date (the "Effective Date"). If the Company fails to file a registration statement on time or if a registration statement is not declared effective by the SEC within 105 days of filing the Company will be required to pay to Nordic, or its assigns, an amount in cash, as partial liquidated damages, equal to 0.5% per month of the amount invested in the Hedrin JV by Nordic until the registration statement is declared effective by the SEC. In no event shall the aggregate amount payable by the Company exceed 9% of the amount invested in the Hedrin JV by Nordic.

The Company was required to file an additional registration statement with 45 days of Nordic's investment of an additional $1.25 million in the Hedrin JV in February 2009. The Company did not meet this requirement as it had our registration statements pending. The Company has requested a waiver until May 31, 2009 of Nordic's registration rights in order to meet this obligation. Nordic has verbally agreed to the waiver.

The profits of the Hedrin JV will be shared by the Company and Nordic in accordance with their respective equity interests in the Limited Partnership, which are currently 50% to each, except that Nordic will get a minimum distribution from the Hedrin JV equal to 5% on Hedrin sales, as adjusted for any change in Nordic's equity interest in the Limited Partnership. If the Hedrin JV realizes a profit equal to or greater than a 10% royalty on Hedrin sales, then profits will be shared by the Company and Nordic in accordance with their respective equity interests in the Limited Partnership. However, in the event of a liquidation of the Limited Partnership, Nordic's distribution in liquidation will be at least equal to the amount Nordic invested in the Hedrin JV ($5 million) plus 10% per year, less the cumulative distributions received by Nordic from the Hedrin JV. Further, in no event shall Nordic's distribution in liquidation be greater than assets available for distribution in liquidation.

7. SECURED 10% NOTES PAYABLE

In September 2008, Manhattan entered into a series of Secured 10% Notes (the "Secured 10% Notes") with certain of our directors, officers and an employee (the "Secured 10% Note Holders") for aggregate of $70,000. Principal and

interest on the Secured 10% Notes shall be paid in cash on March 10, 2009 unless paid earlier by us. Pursuant to the Secured 10% Notes, we also issued to the Secured 10% Note Holders 5-year warrants to purchase an aggregate of 140,000 shares of our common stock at an exercise price of $0.20 per share. Manhattan granted to the Secured 10% Note Holders a continuing security interest in certain specific refunds, deposits and repayments due Manhattan and expected to be repaid to Manhattan in the next several months. At December 31, 2008 accrued and unpaid interest on the Secured 10% Notes amounted to $1,764 and is reflected in the accompanying balance sheet as of December 31, 2008 as a component of accrued expenses. The Secured 10% Notes plus interest were repaid on February 4, 2009.

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8. SECURED 12% NOTES PAYABLE

On November 19, 2008, December 23, 2008 and February 3, 2009, the Company completed the first, second and final closings on a financing transaction (the "12% Notes Transaction"). The Company sold $1,725,000 of 12% senior secured notes (the "Secured 12% Notes") and issued warrants to the investors to purchase 57.5 million shares of the Company's common stock at $0.09 per share. The warrants expire on December 31, 2013. Net proceeds of $1.4 million were realized from the three closings. In addition, $78,000 of issuance costs were paid outside of the closings. Per the terms of the 12% Notes Transaction the net proceeds were paid into a deposit account (the "Deposit Account") and are to be paid out to the Company in monthly installments of $113,300 retroactive to October 1, 2008 and a one-time payment of $200,000. Per the terms of the 12% Notes Transaction the monthly installments are to be used exclusively to fund the current operating expenses of the Company and the one-time payment was to be used for trade payables incurred prior to October 1, 2008. The Company received $362,000 of such monthly installments and the one –time payment of $200,000 during the three month period ended March 31, 2009. The remaining balance in the Deposit Account at March 31, 2009 of approximately $515,000 is reflected in the accompanying balance sheets as of March 31, 2009 as restricted cash.

National Securities Corporation ("National") was the placement agent for the 12% Notes Transaction. National's compensation for acting as placement agent is a cash fee of 10% of the gross proceeds received, a non-accountable expense allowance of 1.5% of the gross proceeds, reimbursement of certain expenses and a warrant to purchase such number of shares of the Company's common stock equal to 15% of the shares underlying the warrants issued to the investors. The Company paid National a total of $202,000 in placement agent fees, a non-accountable expense allowance and reimbursement of certain expenses, of which $47,000 was paid during the three month period ended March 31, 2009. In addition, the Company issued warrants to purchase 8.6 million shares of the Company's common stock at $0.09 per share. These warrants were valued at $29,110 and are a component of Secured 12% notes payable issue costs. The warrants expire on December 31, 2013.

The Secured 12% Notes mature two years after issuance. Interest on the Secured 12% Notes is compounded quarterly and payable at maturity. At March 31, 2009, accrued and unpaid interest on the Secured 12% Notes amounted to approximately $63,000 and is reflected in the accompanying balance sheet at March 31, 2009 as interest payable on secured 12% notes payable. The Secured 12% Notes are secured by a pledge of all of the Company's assets except for its investment in the Hedrin JV. The asset pledge includes the cash balance in the Deposit Account. In addition, to provide additional security for the Company's obligations under the notes, the Company entered into a default agreement, which provides that upon an event of default under the notes, the Company shall, at the request of the holders of the notes, use reasonable commercial efforts to either (i) sell a part or all of the Company's interests in the Hedrin joint venture or (ii) transfer all or part of the Company's interest in the Hedrin JV to the holders of the notes, as necessary, in order to fulfill the Company's obligations under the notes, to the extent required and to the extent permitted by the applicable Hedrin joint venture agreements.

In connection with the private placement, the Company, the placement agent and the investors entered into a registration rights agreement. Pursuant to the registration rights agreement, we agreed to file a registration statement to register the resale of the shares of our common stock issuable upon exercise of the warrants issued to the investors in the private placement, within 20 days of the final closing date and to cause the registration statement to be declared effective within 90 days (or 120 days upon full review by the Securities and Exchange Commission). During the three month period ended March 31, 2009 we filed the registration statement, received a comment letter from the SEC and responded to the comment letter from the SEC. The registration statement was declared effective on April 17, 2009.

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The issuance to the investors of warrants to purchase shares of the Company's common stock at $0.09 per share changes the number of shares represented by the Nordic Put and the number of shares and exercise price of the Nordic Warrant. The Nordic Put and Nordic Warrant were issued at a value of $0.14 per share and were issued with anti-dilution rights. The issuance of any securities at a value of less than $0.14 per share activates Nordic's anti-dilution rights. The Nordic Put and the Nordic Warrant are now exercisable at a price of $0.09 per share. The following table shows the effect of Nordic's anti-dilution rights.

| | Shares Issuable Upon Exercise of Nordic's Put | Additional Shares Issuable Upon Exercise of Nordic's Put, if Certain Conditions Are Met | Shares Issuable Upon Exercise of Nordic's Warrant | Total Shares Issuable Upon Exercise of Nordic's Put and Warrant |
|---|---|---|---|---|
| Before the 12% Notes Transaction | 26,785,714 | 8,928,572 | 7,142,857 | 42,857,143 |
| Antidilution shares | 14,880,953 | 4,960,317 | 3,968,254 | 23,809,524 |
| After the 12% Notes Transaction | 41,666,667 | 13,888,889 | 11,111,111 | 66,666,667 |

The conditions for the additional shares becoming issuable upon the exercise of Nordic's Put were met during the three month period ended March 31, 2009

The Company incurred a total of approximately $424,000 of costs in the issuance of the $1,725,000 of Secured 12% Notes sold in 2008. These costs were capitalized and are being amortized over the life of the Secured 12% Notes into interest expense. During the three month period ended March 31, 2009, the amount amortized into interest expense was approximately $50,000. The remaining unamortized balance of approximately $358,000 is reflected in the accompanying balance sheet as of March 31, 2009 as a non-current asset, secured 12% notes payable issue costs.

The Company recognized an original issue discount (the "OID") of approximately $194,000 on the issuance of the Secured 12% Notes sold for the value of the warrants issued to the investors. The OID is being amortized over the life of the Secured 12% Notes into interest expense. During the three month period ended March 31, 2009 the amount amortized into interest expense was approximately $22,000. The remaining unamortized balance of approximately $165,000 has been netted against the face amount of the Secured 12% Notes in the accompanying balance sheet as of March 31, 2009. As per the terms of the 12% Notes Transaction the Company's officers agreed to certain modifications of their employment agreements (see Note 5).

9. LICENSE AGREEMENTS

Altoderm License Agreement

On April 3, 2007, the Company entered into a license agreement for "Altoderm" (the "Altoderm Agreement") with T&R. Pursuant to the Altoderm Agreement, the Company acquired an exclusive North American license to certain patent rights and other intellectual property relating to Altoderm, a topical skin lotion product candidate using sodium cromoglicate for the treatment of atopic dermatitis.

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In February 2009, the Company terminated the Altoderm Agreement for convenience. The Company has no further financial liability or commitment to T&R under the Altoderm Agreement.

Altolyn License Agreement

On April 3, 2007, the Company and T&R also entered into a license agreement for “Altolyn” (the “Altolyn Agreement”). Pursuant to the Altolyn Agreement, the Company acquired an exclusive North American license to certain patent rights and other intellectual property relating to Altolyn, an oral formulation product candidate using sodium cromoglicate for the treatment of mastocytosis, food allergies, and inflammatory bowel disorder..

In February 2009, the Company terminated the Altolyn Agreement for convenience. The Company has no further financial liability or commitment to T&R under the Altolyn Agreement.

10. DERIVATIVE LIABILITY

In April 2008, the Financial Accounting Standards Board (“FASB”) issued EITF 07-05, Determining whether an Instrument (or Embedded Feature) Is Indexed to an Entity’s Own Stock, (“EITF 07-05”). EITF 07-05 provides guidance on determining what types of instruments or embedded features in an instrument held by a reporting entity can be considered indexed to its own stock for the purpose of evaluating the first criteria of the scope exception in paragraph 11(a) of SFAS 133. EITF 07-05 is effective for financial statements issued for fiscal years beginning after December 15, 2008. The adoption of EITF 07-5’s requirements can affect the accounting for warrants and many convertible instruments with provisions that protect holders from a decline in the stock price (or “down-round” provisions). For example, warrants with such provisions will no longer be recorded in equity. Down-round provisions reduce the exercise price of a warrant or convertible instrument if a company either issues equity shares for a price that is lower than the exercise price of those instruments or issues new warrants or convertible instruments that have a lower exercise price. We evaluated whether warrants to acquire stock of the Company contain provisions that protect holders from declines in the stock price or otherwise could result in modification of the exercise price under the respective warrant agreements. We determined that the warrant issued to Nordic in April 2008 contained such provisions, thereby concluding they were not indexed to the Company’s own stock and were reclassified from equity to derivative liabilities.

In accordance with EITF 07-5, the Company, estimated the fair value of these warrants as of January 1, 2009 to be $22,222 by recording a reduction in paid in capital of $150,000 and a decrease in deficit accumulated during the development stage of $127,778. The effect of this adjustment is recorded as a cumulative effect of change in accounting principles in our condensed statements of stockholder’s equity (deficiency). As of March 31, 2009 the fair value of this derivative was $92,222. The change of $70,000 in fair value during the three month period ended March 31, 2009 is reported as a non-cash charge in our condensed statement of operations as a component of other (income) expense.

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

You should read the following discussion of our results of operations and financial condition in conjunction with our Annual Report on Form 10-K for the year ended December 31, 2008 (the "Annual Report") and our financial statements for the three month period ended March 31, 2009 included elsewhere in this report.

We were incorporated in Delaware in 1993 under the name "Atlantic Pharmaceuticals, Inc." and, in March 2000, we changed our name to "Atlantic Technology Ventures, Inc." In 2003, we completed a "reverse acquisition" of privately held "Manhattan Research Development, Inc". In connection with this transaction, we also changed our name to "Manhattan Pharmaceuticals, Inc." From an accounting perspective, the accounting acquirer is considered to be Manhattan Research Development, Inc. and accordingly, the historical financial statements are those of Manhattan Research Development, Inc.

During 2005 we merged with Tarpan Therapeutics, Inc. ("Tarpan"). Tarpan was a privately held New York based biopharmaceutical company developing dermatological therapeutics. Through the merger, we acquired Tarpan's primary product candidate, Topical PTH (1-34) for the treatment of psoriasis. In consideration for their shares of Tarpan's capital stock, the stockholders of Tarpan received an aggregate of approximately 10,731,000 shares of our common stock, representing approximately 20% of our then outstanding common shares. This transaction was accounted for as a purchase of Tarpan by the Company.

We are a specialty healthcare product company focused on developing and commercializing pharmaceutical treatments for underserved patient populations. We aim to acquire rights to these technologies by licensing or otherwise acquiring an ownership interest, funding their research and development and eventually either bringing the technologies to market or out-licensing. In the short term we are focusing our efforts on the commercialization of the two product candidates we currently have in development: HedrinTM, through the Hedrin JV, a novel, non-insecticide treatment of pediculitis (head lice) and a topical product for the treatment of psoriasis. Longer term we intend to acquire and commercialize low risk, quick to market products, specifically products that could be marketed over-the-counter ("OTC"), treat everyday maladies, are simple to manufacture, and/or could be classified as medical devices by the FDA.

This discussion includes "forward-looking" statements that reflect our current views with respect to future events and financial performance. We use words such as we "expect," "anticipate," "believe," and "intend" and similar expressions to identify forward-looking statements. Investors should be aware that actual results may differ materially from our expressed expectations because of risks and uncertainties inherent in future events, particularly those risks identified under the heading "Risk Factors" following Item 1 in the Annual Report, and should not unduly rely on these forward looking statements.

Results Of Operations

Three-month Period ended March 31, 2009 vs 2008

| | Quarters ended March 31, 2009 | 2008 | Increase (decrease) | % Increase (decrease) |
|---|---|---|---|---|
| Costs and expenses: | | | | |
| Research and development: | | | | |
| Share-based compensation | $ - | $ 53,000 | $ (53,000) | -100.00% |
| Other research and development expenses | 45,000 | 747,000 | (702,000) | -93.98% |
| Total research and development expenses | 45,000 | 800,000 | (755,000) | -94.38% |
| General and administrative: | | | | |
| Share-based compensation | 104,000 | 140,000 | (36,000) | -25.71% |
| Other general and administrative expenses | 408,000 | 674,000 | (266,000) | -39.47% |
| Total general and administrative expenses | 512,000 | 814,000 | (302,000) | -37.10% |
| Other income/(expense) | (205,000) | 35,000 | (240,000) | -685.71% |
| Net loss | $ 762,000 | $ 1,579,000 | $ (817,000) | -51.74% |

During each of the three month periods ended March 31, 2009 and 2008, we did not recognize any revenues. We are considered a development stage company and do not expect to have revenues relating to our products candidates prior to March 31, 2010, if at all.

For the quarter ended March 31, 2009 research and development expense was $45,000 as compared to $800,000 for the quarter ended March 31, 2008. This decrease of $755,000, or 94%, is primarily due to there being no active product development projects during the 2009 period, as the Hedrin product is being developed by the Hedrin JV and as we have ceased development of all other products due to lack of funds and other factors.

For the quarter ended March 31, 2009 general and administrative expense was $512,000 as compared to $814,000 for the quarter ended March 31, 2008. This decrease of $302,000, or 37%, is primarily comprised of a decrease in share-based compensation of $36,000 and a decrease in other general and administrative expenses of $266,000.

For the quarter ended March 31, 2009 other income/(expense) was $(205,000) as compared to $35,000 for the quarter ended March 31, 2008. This change of $(240,000), or 686%, is primarily due to increases in equity in losses of from the Hedrin JV of $116,000, a change in fair value of a derivative of $70,000 and interest expense of $125,000 offset by an increase in interest and other income of $72,000.

Net loss for the quarter ended March 31, 2009 was $762,000 as compared to $1,579,000 for the quarter ended March 31, 2008. This decrease of $817,000, or 52%, is primarily due to decreases in research and development expenses of $755,000 and in general and administrative expenses of $302,000 offset by a change in other income/(expense) of $(240,000).

Liquidity and Capital Resources

From inception to March 31, 2009, we incurred a deficit during the development stage of $59,902,000 primarily as a result of our net losses, and we expect to continue to incur additional losses through at least March 31, 2010 and for the foreseeable future. These losses have been incurred through a combination of research and development activities related to the various technologies under our control and expenses supporting those activities.

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We have financed our operations since inception primarily through equity and debt financings and a joint venture transaction. During the quarter ended March 31, 2009, we had a net increase in cash and cash equivalents of $124,000. This increase resulted largely from net cash provided by financing activities of $770,000 partially offset by net cash used in operating activities of $646,000. Total liquid resources as of March 31, 2009 were $230,000 compared to $106,000 at December 31, 2008.

Our current liabilities as of March 31, 2009 were $993,000 compared to $1,486,000 at December 31, 2008, a decrease of $493,000. As of March 31, 2009, we had working capital deficit of $195,000 compared to working capital deficit of $612,000 at December 31, 2008.

The Company received net proceeds of approximately $340,000 in February 2009 from the final closing of the sale of the 12% Secured Notes and approximately $500,000 in February 2009 from a joint venture agreement. The Company also repaid $70,000 in Secured 10% Notes in February 2009.

Our available working capital and capital requirements will depend upon numerous factors, including progress of our research and development programs, our progress in and the cost of ongoing and planned nonclinical and clinical testing, the timing and cost of obtaining regulatory approvals, the cost of filing, prosecuting, defending, and enforcing patent claims and other intellectual property rights, in-licensing activities, competing technological and market developments, changes in our existing collaborative and licensing relationships, the resources that we devote to developing manufacturing and commercializing capabilities, the status of our competitors, our ability to establish collaborative arrangements with other organizations and our need to purchase additional capital equipment.

Our continued operations will depend on whether we are able to raise additional funds through various potential sources, such as equity and debt financing, other collaborative agreements, strategic alliances, and our ability to realize the full potential of our technology in development. Such additional funds may not become available on acceptable terms and there can be no assurance that any additional funding that we do obtain will be sufficient to meet our needs in the long term. Through March 31, 2009, a significant portion of our financing has been through private placements of common stock and warrants. Unless our operations generate significant revenues and cash flows from operating activities, we will continue to fund operations from cash on hand and through the similar sources of capital previously described. We can give no assurances that any additional capital that we are able to obtain will be sufficient to meet our needs. We believe that we will continue to incur net losses and negative cash flows from operating activities for the foreseeable future.

Based on the resources of the Company available at March 31, 2009, management believes that the Company has sufficient capital to fund its operations through 2009. Management believes that the Company will need additional equity or debt financing or will need to generate positive cash flow from the Hedrin joint venture, or generate revenues through licensing of its products or entering into strategic alliances to be able to sustain its operations into 2010. Furthermore, the Company will need additional financing thereafter to complete development and commercialization of its products. There can be no assurances that we can successfully complete development and commercialization of our products.

These matters raise substantial doubt about the Company’s ability to continue as a going concern. The accompanying financial statements do not include any adjustments that might result from the outcome of this uncertainty.

We have reported net losses of $762,000 and $1,579,000 for the three month periods ended March 31, 2009 and 2008, respectively. The net loss attributable to common shares from date of inception, including preferred stock dividends, August 6, 2001 to March 31, 2009, amounts to $59,902,000. Management believes that we will continue to incur net losses through at least March 31, 2010.

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Joint Venture Agreement

We and Nordic Biotech Venture Fund II K/S, or Nordic, entered into a joint venture agreement on January 31, 2008, which was amended on February 18, 2008 and on June 9, 2008. Pursuant to the joint venture agreement, in February 2008, (i) Nordic contributed cash in the amount of $2.5 million to H Pharmaceuticals K/S (formerly Hedrin Pharmaceuticals K/S), a newly formed Danish limited partnership, or the Hedrin JV, in exchange for 50% of the equity interests in the Hedrin JV, and (ii) we contributed certain assets to North American rights (under license) to our Hedrin product to the Hedrin JV in exchange for $2.0 million in cash and 50% of the equity interests in the Hedrin JV. On or around June 30, 2008, in accordance with the terms of the joint venture agreement, Nordic contributed an additional $1.25 million in cash to the Hedrin JV, $1.0 million of which was distributed to us and equity in the Hedrin JV was distributed to each of us and Nordic sufficient to maintain our respective ownership interests at 50%.

Pursuant to the joint venture agreement, upon the classification by the U.S. Food and Drug Administration, or the FDA, of Hedrin as a Class II or Class III medical device, Nordic was required to contribute to the Hedrin JV an additional $1.25 million in cash, $0.5 million of which was to be distributed to us and equity in the Hedrin JV was to be distributed to each of us and Nordic sufficient to maintain our respective ownership interests at 50%. The FDA notified the Hedrin JV that Hedrin has been classified as a Class III medical device and in February 2009, Nordic made the $1.25 million investment in the Hedrin JV, the Hedrin JV made the $0.5 million milestone payment to us and equity in the Hedrin JV was distributed to us and Nordic sufficient to maintain our respective ownership interests at 50%.

The Hedrin JV is responsible for the development and commercialization of Hedrin for the North American market and all associated costs including clinical trials, if required, regulatory costs, patent costs, and future milestone payments owed to Thornton & Ross Ltd., or T&R, the licensor of Hedrin. The Hedrin JV has engaged us to provide management services to the Hedrin JV in exchange for an annualized management fee, which for the three month periods ended March 31, 2009 and 2008 was approximately $109,000 and $51,000, respectively.

The profits of the Hedrin JV will be shared by us and Nordic in accordance with our respective equity interests in the Hedrin JV, of which we each currently hold 50%, except that Nordic is entitled to receive a minimum return each year from the Hedrin JV equal to 6% on Hedrin sales, as adjusted for any change in Nordic’s equity interest in the Hedrin JV, before any distribution is made to us. If the Hedrin JV realizes a profit in excess of the Nordic minimum return in any year, then such excess shall first be distributed to us until our distribution and the Nordic minimum return are in the same ratio as our respective equity interests in the Hedrin JV and then the remainder, if any, is distributed to Nordic and us in the same ratio as our respective equity interests. However, in the event of a liquidation of the Hedrin JV, Nordic’s distribution in liquidation must equal the amount Nordic invested in the Hedrin JV ($5 million) plus 10% per year, less the cumulative distributions received by Nordic from the Hedrin JV before any distribution is made to us. If the Hedrin JV’s assets in liquidation exceed the Nordic liquidation preference amount, then any excess shall first be distributed to us until our distribution and the Nordic liquidation preference amount are in the same ratio as our respective equity interests in the Hedrin JV and then the remainder, if any, is distributed to Nordic and us in the same ratio as our respective equity interests. Further, in no event shall Nordic’s distribution in liquidation be greater than assets available for distribution in liquidation.

Pursuant to the terms of the joint venture agreement, Nordic has the right to nominate one person for election or appointment to our board of directors. The Hedrin JV's board of directors consists of four members, two members appointed by us and two members appointed by Nordic. Nordic has the right to appoint one of the directors as chairman of the board. The chairman has certain tie breaking powers.

Pursuant to the joint venture agreement, Nordic has the right to put all or a portion of its interest in the Hedrin JV in exchange for such number of shares of our common stock equal to the amount of Nordic's investment in the Hedrin JV divided by $0.09, as adjusted for the sale of the Secured 12% Notes in the fourth quarter of 2008, and as further adjusted from time to time for stock splits and other specified events, multiplied by a conversion factor, which is (i) 1.00 for so long as Nordic's distributions from the Hedrin JV are less than the amount of its investment, (ii) 1.25 for so long as Nordic's distributions from the Hedrin JV are less than two times the amount of its investment but greater than or equal to the amount of its investment amount, (iii) 1.50 for so long as Nordic's distributions from the Hedrin JV are less than three times the amount of its investment but greater than or equal to two times the amount of its investment amount, (iv) 2.00 for so long as Nordic's distributions from the Hedrin JV are less than four times the amount of its investment but greater than or equal to three times the amount of its investment amount and (v) 3.00 for so long as Nordic's distributions from Hedrin JV are greater than or equal to four times the amount of its investment. The put right expires upon the earlier to occur of (i) February 25, 2018 and (ii) 30 days after the date when Nordic's distributions from the Hedrin JV exceed five times the amount Nordic has invested in the Hedrin JV (or 10 days after such date if we have provided Nordic notice thereof).

Pursuant to the joint venture agreement, we have the right to call all or a portion of Nordic's equity interest in the Hedrin JV in exchange for such number of shares of our common stock equal to the portion of Nordic's investment in the Hedrin JV that we call by the dollar amount of Nordic's investment as of such date in the Hedrin JV, divided by $0.09, as adjusted for the sale of the Secured 12% Notes in the fourth quarter of 2008, and as further adjusted from time to time for stock splits and other specified events. The call right is only exercisable by us if the price of our common stock has closed at or above $1.40 per share for 30 consecutive trading days. During the first 30 consecutive trading days in which our common stock closes at or above $1.40 per share, we may exercise up to 25% of the call right. During the second 30 consecutive trading days in which our common stock closes at or above $1.40 per share, we may exercise up to 50% of the call right on a cumulative basis. During the third consecutive 30 trading days in which our common stock closes at or above $1.40 per share, we may exercise up to 75% of the call right on a cumulative basis. During the fourth consecutive 30 days in which our common stock closes at or above $1.40 per share, we may exercise up to 100% of the call right on a cumulative basis. Nordic may refuse the call, either by paying $1.5 million multiplied by the percentage of Nordic's investment being called or forfeiting an equivalent portion of the put right, calculated on a pro rata basis for the percentage of the Nordic equity interest called by us. The call right expires on February 25, 2013. For purposes of Nordic's right to put, and our right to call, all or a portion of Nordic's equity interest in the Hedrin JV, the amount of Nordic's investment is currently $5,000,000.

In connection with our joint venture agreement, on February 25, 2008, Nordic paid us a non-refundable fee of $150,000 in exchange for the right to receive a warrant to purchase up to 11,111,111 shares of our common stock at $0.09 per share, as adjusted for the sale of the Secured 12% Notes in the fourth quarter of 2008, and as further adjusted from time to time for stock splits and other specified events, if Nordic did not exercise all or part of its put right on or before April 30, 3008. As of April 30, 2008, Nordic had not exercised all or any portion of its put right and we issued the warrant to Nordic.

In connection with the joint venture agreement, we and Nordic entered into a registration rights agreement, on February 25, 2008, as modified pursuant to a letter agreement, dated September 17, 2008, pursuant to which we agreed to file with the Securities and Exchange Commission, or the SEC, by no later than 10 calendar days following the date on which our Annual Report on Form 10-K for the year ended December 31, 2007 is required to be filed with the SEC, which was subsequently waived by Nordic until May 1, 2008, an initial registration statement registering the resale by Nordic of any shares of our common stock issuable to Nordic through the exercise of the warrant or the put right. We filed an initial registration statement on May 1, 2008, which was declared effective on October 15, 2008.

We also have agreed to file with the SEC any additional registration statements which may be required no later than 45 days after the date we first know such additional registration statement is required; provided, however, that (i) in the case of the classification by the FDA of Hedrin as a Class II or Class III medical device described above and the payment in full by Nordic of the related final milestone payment of $1.25 million, the registration statement with respect to the additional shares of our common stock relating to such additional investment must be filed within 45 days after achievement of such classification; and (ii) in the event we provide Nordic with notice of exercise of our right to call all or a portion of Nordic's equity interest in the Hedrin JV, a registration statement with respect to the shares of our common stock payable to Nordic in connection with such call right (after giving effect to any reduction in the number of such shares resulting from Nordic's refusal of all or a portion of such call in accordance with the terms of our joint venture agreement) must be filed within 16 days after delivery of such notice to Nordic. If we fail to file a registration statement on time or if a registration statement is not declared effective by the SEC within 105 days of the required filing date, or otherwise fail to diligently pursue registration with the SEC in accordance with the terms of the registration rights agreement, we will be required to pay as partial liquidated damages and not as a penalty, to Nordic or its assigns, an amount equal to 0.5% of the amount invested in the Hedrin JV by Nordic pursuant to the joint venture agreement per month until the registration rights agreement is declared effective by the SEC; provided, however, that in no event shall the aggregate amount payable by us exceed 9% of the amount invested in the Hedrin JV by Nordic under the joint venture agreement.

The Company was required to file an additional registration statement with 45 days of Nordic’s investment of an additional $1.25 million in the Hedrin JV in February 2009. The Company did not meet this requirement as it had our registration statements pending. The Company has requested a waiver until May 31, 2009 of Nordic’s registration rights in order to meet this obligation. Nordic has verbally agreed to the waiver.

Secured 10% Notes Payable

On September 11, 2008, we issued secured 10% promissory notes to certain of our directors and officers and an employee for aggregate principal amount of $70,000. Principal and interest on the notes are payable in cash on March 10, 2009 unless paid earlier by the Company. In connection with the issuance of the notes, the Company issued to the noteholders 5-year warrants to purchase an aggregate of 140,000 shares of our common stock at an exercise price of $0.20 per share. We granted to the noteholders a continuing security interest in certain specific refunds, deposits and repayments due to us and expected to be repaid to us in the next several months. The secured 10% notes were repaid in February 2009 along with interest thereon.

Secured 12% Notes Payable

On February 3, 2009, we completed a private placement of 345 units, with each unit consisting of Secured 12% Notes in the principal amount of $5,000 and a warrant to purchase up to 166,667 shares of our common stock at an exercise price of $.09 per share which expires on December 31, 2013, for aggregate gross proceeds of $1,725,000. The private placement was completed in three closings which occurred on November 19, 2008 with respect to 207 units, December 23, 2008 with respect to 56 units and February 3, 2009 with respect to 82 units.

To secure our obligations under the notes, we entered into a security agreement and a default agreement with the investors. The security agreement provides that the notes will be secured by a pledge of our assets other than (i) our interest in the Hedrin joint venture, including, without limitation, our interest in H Pharmaceuticals K/S and H Pharmaceuticals General Partner ApS, (ii) our rent deposit for our former office space, (iii) our refund of a prepayment and (iv) our tax refund for the 2007 fiscal year from the State of New York and City of New York. In addition, to provide additional security for our obligations under the notes, we entered into a default agreement, which provides that upon an event of default under the notes, we shall, at the request of the holders of the notes, use our reasonable commercial efforts to either (i) sell a part or all of our interests in the Hedrin joint venture or (ii) transfer all

or part of our interest in the Hedrin JV to the holders of the notes, as necessary, in order to fulfill our obligations under the notes, to the extent required and to the extent permitted by the applicable Hedrin joint venture agreements.

In connection with the private placement, we, the placement agent and the investors entered into a registration rights agreement. Pursuant to the registration rights agreement, we agreed to file a registration statement to register the resale of the shares of our common stock issuable upon exercise of the warrants issued to the investors in the private placement, within 20 days of the final closing date and to cause the registration statement to be declared effective within 90 days (or 120 days upon full review by the SEC). During the three month period ended March 31, 2009, we filed the registration statement, received a comment letter from the SEC, responded to the SEC comment letter and re-filed the registration statement. The registration statement was declared effective by the SEC on April 17, 2009.

Commitments

General

We often contract with third parties to facilitate, coordinate and perform agreed upon research and development of our product candidates. To ensure that research and development costs are expensed as incurred, we record monthly accruals for clinical trials and nonclinical testing costs based on the work performed under the contracts.

These contracts typically call for the payment of fees for services at the initiation of the contract and/or upon the achievement of certain milestones. This method of payment often does not match the related expense recognition resulting in either a prepayment, when the amounts paid are greater than the related research and development costs recognized, or an accrued liability, when the amounts paid are less than the related research and development costs recognized.

Swiss Pharma Contract LTD, or Swiss Pharma, a clinical site that we used in one of our obesity trials, gave notice to us that Swiss Pharma believed it was entitled to receive an additional payment of $322,776 for services in connection with that clinical trial. The contract between us and Swiss Pharma provided for arbitration in the event of a dispute, such as this claim for an additional payment. On March 10, 2008, Swiss Pharma filed for arbitration with the Swiss Chamber of Commerce. As we did not believe that Swiss Pharma was entitled to additional payments, we defended our position in arbitration. On April 2, 2008, we filed our statement of defense and counterclaim for recovery of costs incurred by us as a result of Swiss Pharma’s failure to meet agreed upon deadlines under our contract. On June 3, 2008, a hearing was held before the arbitrator. On September 5, 2008, the arbitrator rendered an award in favor of Swiss Pharma, awarding to Swiss Pharma a total of approximately $646,000 which amount includes a contract penalty of approximately $323,000, a final services invoice of approximately $48,000, reimbursement of certain of Swiss Pharma’s legal and other expenses incurred in the arbitration process of approximately $245,000, reimbursement of arbitration costs of approximately $13,000 and interest through September 5, 2008 of approximately $17,000. Further, the arbitrator ruled that we must pay interest at the rate of 5% per annum on approximately $371,000, the sum of the contract penalty of approximately $323,000 and the final services invoice of approximately $48,000, from October 12, 2007 until paid. We had previously recognized a liability to Swiss Pharma in the amount of $104,000 for the final services invoice. The remainder of the award was expensed in 2008. On January 22, 2009, we received notice that Swiss Pharma submitted a petition to the Supreme Court of the State of New York, County of New York seeking to confirm and to enter a judgment on the Arbitration Award. On February 17, 2009, we filed an answer to Swiss Pharma's petition. A hearing has not yet been scheduled. We will continue to accrue interest at the rate of 5% per annum on the approximate $371,000 amount until such amount has been settled. We do not have sufficient cash or other current available assets to satisfy the arbitrator's award.

Development Commitments

At present the Company has no development commitments.

Research and Development Projects

Hedrin

In collaboration with Nordic and through the Hedrin JV we are developing Hedrin for the treatment of pediculosis (head lice). To date, Hedrin has been clinically studied in 326 subjects and is currently marketed as a device in Western Europe and as a pharmaceutical in the United Kingdom (U.K.).

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In a randomized, controlled, equivalence clinical study conducted in Europe by T&R, Hedrin was administered to 253 adult and child subjects with head louse infestation. The study results, published in the British Medical Journal in June 2005, demonstrated Hedrin's equivalence when compared to the insecticide treatment, phenothrin, the most widely used pediculicide in the U.K. In addition, according to the same study, the Hedrin-treated subjects experienced significantly less irritation (2%) than those treated with phenothrin (9%).

An additional clinical study published in the November 2007 issue of PLoS One, an international, peer-reviewed journal published by the Public Library of Science (PLoS), demonstrated Hedrin's superior efficacy compared to a U.K. formulation of malathion, a widely used insecticide treatment in both Europe and North America. In this randomized, controlled, assessor blinded, parallel group clinical trial, 73 adult and child subjects with head lice infestations were treated with Hedrin or malathion liquid. Using intent-to-treat analysis, Hedrin achieved a statistically significant cure rate of 70% compared to 33% with malathion liquid. Using the per-protocol analysis Hedrin achieved a highly statistically significant cure rate of 77% compared to 35% with malathion. In Europe it has been widely documented that head lice had become resistant to European formulations of malathion, and we believe this resistance had influenced these study results. To date, there have been no reports of resistance to U.S. formulations of malathion. Additionally, Hedrin treated subjects experienced no irritant reactions, and Hedrin showed clinical equivalence to malathion in its ability to inhibit egg hatching. Overall, investigators and study subjects rated Hedrin as less odorous, easier to apply, and easier to wash out, and 97% of Hedrin treated subjects stated they were significantly more inclined to use the product again versus 31% of those using malathion.

Two new, unpublished Hedrin studies were completed by T&R in 2008. In the first, Hedrin achieved a 100% kill rate in vitro, including in malathion resistant head lice. In the other, a clinical field study conducted in Manisa province, a rural area of Western Turkey, Hedrin was administered to 36 adult and child subjects with confirmed head lice infestations. Using per protocol analysis, Hedrin achieved a 97% cure rate. Using intent-to-treat analysis, Hedrin achieved a 92% cure rate since 2 subjects were eliminated due to protocol violations. No subjects reported any adverse events.

In the U.S., Manhattan Pharmaceuticals, through the Hedrin JV, is pursuing the development of Hedrin as a medical device. In January 2009, the U.S. Food and Drug Administration ("FDA") Center for Devices and Radiological Health ("CDRH") notified H Pharmaceuticals that Hedrin had been classified as a Class III medical device. A Class III designation means that a Premarket Approval ("PMA") Application will need to be obtained before Hedrin can be marketed in the U.S. The Company expects to be required to complete at least one clinical trial as part of that PMA Application.

To date, we have incurred $1,084,000 of project costs for the development of Hedrin. None of these costs were incurred during the three month period ended March 31, 2009. We do not expect to incur any future costs as the Hedrin JV is now responsible for all costs associated with Hedrin.

Topical PTH (1-34).

As a result of our merger with Tarpan Therapeutics in 2005, we hold an exclusive, worldwide license to develop and commercialize Topical PTH (1-34) for the treatment of psoriasis. Tarpan acquired the exclusive, worldwide rights pursuant to a 2004 license agreement with IGI, Inc ("IGI").

In April 2006, we encountered a stability issue with the original topical PTH (1-34) product which utilized IGI's Novosome® formulation technology. In order to resolve that stability issue we created a new topical gel version of PTH (1-34) and filed new patent applications in the U.S. for this new proprietary formulation.

In September 2007, the U.S. FDA accepted our Investigational New Drug ("IND") application for this new gel formulation of Topical PTH (1-34), and in October 2007, we initiated and began dosing subjects in a Phase 2a clinical study of Topical PTH (1-34) for the treatment of psoriasis. This U.S., multi-center, randomized, double-blind, vehicle-controlled, parallel group study was designed to evaluate safety and preliminary efficacy of Topical PTH (1-34) in patients with mild to moderate psoriasis. Approximately 54 subjects were enrolled and randomized to receive one of two dose levels of Topical PTH (1-34), or the gel vehicle (placebo), for an 8 week treatment period. In this study the vehicle was the topical gel ("GEL") without the active ingredient, PTH (1-34). In July 2008, we announced the results of the Phase 2a study where Topical PTH (1-34) failed to demonstrate a statistically significant or clinically meaningful improvement in psoriasis.

In July 2008 we announced the results of a Phase 2a clinical study where PTH (1-34) failed to show statistically or clinically meaningful improvements in psoriasis as compared to the vehicle (placebo). The Company has conducted no further clinical activities with PTH (1-34) and intends to return the project to IGI under the terms of the license agreement.

The gel vehicle (placebo) used in the above-mentioned study is the Company's proprietary topical GEL and it unexpectedly showed evidence of psoriasis improving properties. At the end of week 2, 15% of study subjects treated with the GEL achieved a clear or almost clear state. At the end of week 4, 20% of subjects treated with the GEL had achieved a clear or almost clear state, and at the end of week 8, 25% of subjects had achieved a clear or almost clear state. The Company owns worldwide rights to this topical GEL and is exploring the possibility of developing it as an OTC product for mild psoriasis.

To date, we have incurred $6,504,000 of project costs related to our development of Topical PTH (1-34). These project costs have been incurred since April 1, 2005, the date of the Tarpan Therapeutics acquisition. None of these costs were incurred during the three month period ended March 31, 2009.

Summary of Contractual Commitments

Employment Agreement

The Company has an employment agreement with one employee for the payment of an annual base salary of $300,000 as well as performance based bonuses. This agreement has a remaining term of three months and a remaining obligation of $83,000 as of March 31, 2009. As per the terms of the Secured 12% Notes sold in the fourth quarter of 2008 and the first quarter of 2009 management, comprised of the two employees, including one under contract, has agreed to reduce their salaries effective as of October 1, 2008. If the Company sells at least $1.5 million but less than $2 million of Secured 12% Notes then their salaries shall be reduced by 20%. The Company sold $1.725 million of Secured 12% Notes, management therefore was paid 80% of their salaries during the fourth quarter of 2008. Also as per the terms of the Secured 12% Notes the reduction in management's salaries shall be reduced to 10% if the Company realizes gross proceeds of $500,000 or more from other sources and there will be no reduction if the Company realizes gross proceeds of $1,000,000 or more from other sources. In February 2009 the Company received a $500,000 milestone payment from the Hedrin JV; therefore management's salaries are currently reduced by 10%.

Off-Balance Sheet Arrangements

We have not entered into any off-balance sheet arrangements.

Critical Accounting Policies

In December 2001, the SEC requested that all registrants discuss their most "critical accounting policies" in management's discussion and analysis of financial condition and results of operations. The SEC indicated that a "critical accounting policy" is one which is both important to the portrayal of the company's financial condition and results and requires management's most difficult, subjective or complex judgments, often as a result of the need to make estimates about the effect of matters that are inherently uncertain.

Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect certain reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the

reported amounts of expenses during the reporting period. Actual results could differ from those estimates.

Research and Development Expenses

All research and development costs are expensed as incurred and include costs of consultants who conduct research and development on behalf of the Company and its subsidiaries. Costs related to the acquisition of technology rights and patents for which development work is still in process are expensed as incurred and considered a component of research and development costs.

The Company often contracts with third parties to facilitate, coordinate and perform agreed upon research and development of a new drug. To ensure that research and development costs are expensed as incurred, the Company records monthly accruals for clinical trials and preclinical testing costs based on the work performed under the contracts.

These contracts typically call for the payment of fees for services at the initiation of the contract and/or upon the achievement of certain milestones. This method of payment often does not match the related expense recognition resulting in either a prepayment, when the amounts paid are greater than the related research and development costs expensed, or an accrued liability, when the amounts paid are less than the related research and development costs expensed.

Share-Based Compensation

We have stockholder-approved stock incentive plans for employees, directors, officers and consultants. Prior to January 1, 2006, we accounted for the employee, director and officer plans using the intrinsic value method under the recognition and measurement provisions of Accounting Principles Board (“APB”) Opinion No. 25, “Accounting for Stock Issued to Employees” and related interpretations, as permitted by Statement of Financial Accounting Standards (“SFAS” or “Statement”) No. 123, “Accounting for Stock-Based Compensation.”

Effective January 1, 2006, the Company adopted SFAS No. 123(R), “Share-Based Payment,” (“Statement 123(R)”) for employee options using the modified prospective transition method. Statement 123(R) revised Statement 123 to eliminate the option to use the intrinsic value method and required the Company to expense the fair value of all employee options over the vesting period. Under the modified prospective transition method, the Company recognizes compensation cost for the three month periods ended March 31, 2009 and 2008 which includes a) period compensation cost related to share-based payments granted prior to, but not yet vested, as of January 1, 2006, based on the grant date fair value estimated in accordance with the original provisions of Statement 123; and b) period compensation cost related to share-based payments granted on or after January 1, 2006, based on the grant date fair value estimated in accordance with Statement 123(R). In accordance with the modified prospective method, the Company has not restated prior period results.

New Accounting Pronouncements

In December 2007, the FASB issued Statement of Financial Accounting Standards (“SFAS”) No. 160, “Noncontrolling interest in Consolidated Financial Statements” (“SFAS 160”). SFAS 160 requires all entities to report noncontrolling (minority) interests in subsidiaries as equity in the consolidated financial statements. SFAS 160 establishes a single method of accounting for changes in a parent's ownership interest in a subsidiary that do not result in deconsolidation and expands disclosures in the consolidated financial statements. SFAS 160 is effective for fiscal years beginning after December 15, 2008 and interim periods within those fiscal years. The adoption of SFAS 160 did not have any impact on our financial statements.

In February 2008, the FASB issued two Staff Positions on SFAS 157: (1) FASB Staff Position No. FAS 157-1 (“FAS 157-1”), “Application of FASB Statement No. 157 to FASB Statement No. 13 and Other Accounting Pronouncements That Address Fair Value Measurements for Purposes of Lease Classification or Measurement Under Statement 13,” and (2) FASB Staff Position No. FAS 157-2 (“FAS 157-2”), “Effective Date of FASB Statement No 157.” FAS 157-1 excludes SFAS 13, “Accounting for Leases”, as well as other accounting pronouncements that address fair value measurements on lease classification or measurement under SFAS 13, from SFAS 157’s scope. FAS157-2 partially defers SFAS 157’s effective date. The adoption of FAS 157-1 and FAS 157-2 did not have a material impact on our financial statements.

In October 2008, the FASB issued FASB Staff Position No. FAS 157-3 "Determining the Fair Value of a Financial Asset When the Market for That Asset is Not Active" ("FAS 157-3"), which is effective upon issuance for all financial statements that have not been issued. FAS 157-3 clarifies the application of SFAS 157, in a market that is not active. FAS 157-3 did not have any impact on our financial statements.

In March 2008, the FASB issued SFAS No. 161 "Disclosures About Derivative Instruments and Hedging Activities - an amendment of FASB Statement No. 133" ("SFAS 161"). SFAS 161 amends SFAS 133 by requiring expanded disclosures about an entity's derivative instruments and hedging activities. SFAS 161 requires qualitative disclosures about objectives and strategies for using derivatives, quantitative disclosures about fair value amounts of and gains and losses on derivative instruments, and disclosures about credit-risk-related contingent features in derivative instruments. SFAS 161 is effective for the Company as of January 1, 2009. The adoption of SFAS 161 did not have any impact on our financial statements.

In December 2007, the FASB issued SFAS No. 141(R), a revised version of SFAS No. 141, “Business Combinations” (“SFAS 141R”). The revision is intended to simplify existing guidance and converge rulemaking under U.S. generally accepted accounting principles with international accounting standards. SFAS 141R applies prospectively to business combinations where the acquisition date is on or after the beginning of the first annual reporting period beginning on or after December 15, 2008. An entity may not apply it before that date. The adoption of SFAS 141(R) did not have any impact on our financial statements.

In June 2008, the FASB ratified EITF Issue No. 07-5, "Determining Whether an Instrument (or an Embedded Feature) Is Indexed to an Entity's Own Stock" (“EITF 07-5”). EITF 07-5 provides that an entity should use a two step approach to evaluate whether an equity-linked financial instrument (or embedded feature) is indexed to its own stock, including evaluating the instrument's contingent exercise and settlement provisions. It also clarifies the impact of foreign currency denominated strike prices and market-based employee stock option valuation instruments on the evaluation. EITF 07-5 is effective for fiscal years beginning after December 15, 2008. The adoption of EITF 07-5 had an impact on our financial statements (see Note 10 to our financial statements for the period ended March 31, 2009).

In April 2009, the FASB issued Staff Position (“FSP”) No. 157-4, “Determining Fair Value When the Volume and Level of Activity for the Asset or Liability Have Significantly Decreased and Identifying Transactions That Are Not Orderly,” (“FSP FAS 157-4”) which provides guidance on determining when there has been a significant decrease in the volume and level of activity for an asset or liability, when a transaction is not orderly, and how that information must be incorporated into a fair value measurement. FSP SFAS 157-4 also requires expanded disclosures on valuation techniques and inputs and specifies the level of aggregation required for all quantitative disclosures. The provisions of FSP SFAS 157-4 are effective for the Company’s quarter ending June 30, 2009. We do not expect this FSP to have a material impact on our financial statements.

In April 2009, the FASB issued Staff Position (“FSP”) No. 115-2 and No. 124-2, (“FSP FAS 155-2” and “FSP FAS 124-2”)“Recognition and Presentation of Other-Than-Temporary Impairments,” which makes the guidance on other-than-temporary impairments of debt securities more operational and requires additional disclosures when a

company records an other-than-temporary impairment. FSP FAS 115-2 and FAS 124-2 are effective for interim and annual reporting periods ending after June 15, 2009. We will be required to adopt the principles of FSP FAS 115-2 and FAS 124-2 in the second quarter of 2009. We do not expect the adoption to have a material effect on our financial statements.

Item 3. Quantitative and Qualitative Disclosure About Market Risk

Our exposure to market risk is confined to our cash and cash equivalents. We have attempted to minimize risk by investing in high-quality financial instruments, primarily money market funds with no security having an effective duration longer than 90 days. If the market interest rate decreases by 100 basis points or 1%, the fair value of our cash and cash equivalents portfolio would have minimal to no impact on the carrying value of our portfolio. We did not hold any derivative instruments as of March 31, 2009, and we have never held such instruments in the past.

Item 4. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

As of March 31, 2009, we carried out an evaluation, under the supervision and with the participation of our Chief Executive Officer and Chief Financial Officer, of the effectiveness of the design and operation of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) of the Securities Exchange Act of 1934, as amended). Based upon that evaluation, our Chief Executive Officer and Chief Financial Officer concluded that our disclosure controls and procedures as of that date were effective to ensure that information required to be disclosed in the reports we file under the Securities and Exchange Act is recorded, processed, summarized and reported on an accurate and timely basis.

The Company’s management, including its Chief Executive Officer and its Chief Financial Officer, does not expect that disclosure controls or internal controls over financial reporting will prevent all errors or all instances of fraud, even as the same are improved to address any deficiencies. The design of any system of controls is based in part upon certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions. A control system, no matter how well designed and operated, can provide only reasonable, not absolute, assurance that the control system’s objectives will be met. Over time, controls may become inadequate because of changes in conditions or deterioration in the degree of compliance with policies or procedures. Further, the design of a control system must reflect the fact that there are resource constraints, and the benefits of controls must be considered relative to their costs. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, within the Company have been detected.

Because of the inherent limitation of a cost-effective control system, misstatements due to error or fraud may occur and not be detected. These inherent limitations include the realities that judgments in decision-making can be faulty, and that breakdowns can occur because of a simple error or mistake. Controls can also be circumvented by the individual acts of some persons, by collusion of two or more people, or by management override of the controls.

Changes in Internal Control

During the quarter ended March 31, 2009, there were no changes in internal controls over financial reporting that have materially affected, or are reasonably likely to materially affect, our internal controls over financial reporting.

Part II

Item 1. Legal Proceedings

Swiss Pharma Contract LTD, or Swiss Pharma, a clinical site that we used in one of our obesity trials, gave notice to us that Swiss Pharma believed it was entitled to receive an additional payment of $322,776 for services in connection with that clinical trial. The contract between us and Swiss Pharma provided for arbitration in the event of a dispute, such as this claim for an additional payment. On March 10, 2008, Swiss Pharma filed for arbitration with the Swiss Chamber of Commerce. As we did not believe that Swiss Pharma was entitled to additional payments, we defended our position in arbitration. On April 2, 2008, we filed our statement of defense and counterclaim for recovery of costs incurred by us as a result of Swiss Pharma's failure to meet agreed upon deadlines under our contract. On June 3, 2008, a hearing was held before the arbitrator under the auspices of the Swiss Chamber of Commerce. On September 5, 2008, the arbitrator rendered an award in favor of Swiss Pharma, awarding to Swiss Pharma a total of $646,000 which amount includes a $323,000 contract penalty, a final services invoice of $48,000, reimbursement of certain of Swiss Pharma's legal and other expenses incurred in the arbitration process of $245,000, reimbursement of arbitration costs of $13,000 and interest through September 5, 2008 of $17,000. Further, the arbitrator ruled that we must pay interest at the rate of 5% per annum on $371,000, the sum of the $323,000 contract penalty and the final services invoice of $48,000, from October 12, 2007 until paid. We had previously recognized a liability to Swiss Pharma in the amount of $104,000 for the final services invoice. The remainder of the award was expensed in 2008. On January 22, 2009, we received notice that Swiss Pharma submitted a petition to the Supreme Court of the State of New York, County of New York seeking to confirm and to enter a judgment on the Arbitration Award. On February 17, 2009, we filed an answer to Swiss Pharma's petition. A hearing has not yet been scheduled. We will continue to accrue interest at the rate of 5% per annum on the $371,000 until such amount has been settled. We do not have sufficient cash or other current available assets to satisfy the arbitrator's award.

Item 1A. Risk Factors

We have not had material changes to our risk factor disclosure in our Annual Report on Form 10-K for the year ended December 31, 2008 under the caption "Risk Factors" following Item 1 of such report.

Item 6. Exhibits

| Exhibit No. | Description |
|---|---|
| 31.1 | Certification of Chief Executive Officer |
| 31.2 | Certification of Chief Financial Officer |
| 32.1 | Certifications of Chief Executive Officer and Chief Financial Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002. |

SIGNATURES

In accordance with the requirements of the Exchange Act of 1934, the registrant caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

MANHATTAN PHARMACEUTICALS, INC.

| | |
|---|---|
| Date: May 15, 2009 | By: /s/ Douglas Abel<br>Douglas Abel<br>President and Chief Executive Officer |
| Date: May 15, 2009 | By: /s/ Michael G. McGuinness<br>Michael G. McGuinness<br>Chief Operating and Financial Officer |

Index to Exhibits Filed with this Report

| Exhibit No. | Description |
|---|---|
| 31.1 | Certification of Principal Executive Officer. |
| 31.2 | Certification of Principal Financial Officer. |
| 32.1 | Certifications pursuant to Section 906 of the Sarbanes-Oxley Act of 2002. |