

BioAmber Inc.
Form 10-Q
November 07, 2016
è

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

Form 10-Q

QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF
1934

For the quarterly period ended September 30, 2016

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: 001-35905

BIOAMBER INC.

(Exact name of registrant as specified in its charter)

Delaware 98-0601045
(State or other jurisdiction of (I.R.S. Employer

incorporation or organization) Identification No.)

Jean-François Huc

President and Chief Executive Officer

BioAmber Inc.

Edgar Filing: BioAmber Inc. - Form 10-Q

1250 Rene Levesque West, Suite 4310

Montreal, Quebec, Canada H3B 4W8

Telephone: (514) 844-8000

(Address, Including Zip Code, and Telephone Number, Including Area Code, of Registrant's Principal Executive Offices)

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, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer

Accelerated filer

Non-accelerated filer (Do not check if a smaller reporting company)

Smaller reporting company

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

As of November 7, 2016, there were 28,836,983 shares of the registrant's Common Stock, \$0.01 par value per share, outstanding.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This Quarterly Report on Form 10-Q contains or incorporates by reference statements that are not historical facts and are considered forward-looking within the meaning of Section 27A of the Securities Act and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act. These forward-looking statements may contain projections of our future results of operations or of our financial position or state other forward-looking information. In some cases you can identify these statements by forward-looking words such as “anticipate,” “believe,” “could,” “continue,” “estimate,” “expect,” “intend,” “may,” “should,” “will,” “would,” “plan,” “projected” or the negative of such words or other similar words or phrases. We believe that it is important to communicate our future expectations to our investors. However, there may be events in the future that we are not able to accurately predict or control and that may cause our actual results to differ materially from the expectations we describe in our forward-looking statements. You are cautioned not to unduly rely on forward-looking statements because they involve risks and uncertainties, and actual results may differ materially from those discussed as a result of various factors, including, but not limited to:

- the expected funding sources of our future planned manufacturing facilities and the expected timing of the completion of construction and the start of commercial operations at each of these facilities;
- our joint venture with Mitsui & Co. Ltd., or Mitsui;
- our offtake agreements with Vinmar International Ltd., or Vinmar, related to bio-based 1,4-butanediol, which we refer to as 1,4 BDO or BDO, tetrahydrofuran, which we refer to as THF, and bio-based succinic acid, and with PTTMCC Biochem Company Limited, or PTTMCC Biochem, for bio-succinic acid;
- the expected market applications for our products and the sizes of these addressable markets;
- our ability to gain market acceptance for bio-succinic acid, its derivatives including 1,4 BDO and THF and other building block chemicals;
- our ability to ramp up commercial sales and execute on our commercial expansion plan, including the timing and volume of our future production and sales;
- the expected cost-competitiveness and relative performance attributes of our bio-succinic acid and the products derived from it;
- our ability to cost-effectively produce and commercialize bio-succinic acid, its derivatives and other building block chemicals;
- customer qualification, approval and acceptance of our products;
-

our ability to maintain and advance strategic partnerships and collaborations and the expected benefits and accessible markets related to those partnerships and collaborations;

- the impact of our off-take agreements on our business with our customers, our distributors and our current and future equity partners;
 - our ability to economically obtain feedstock and other inputs;
 - the achievement of advances in our technology platform;
 - our ability to obtain and maintain intellectual property protection for our products and processes and not infringe on others' rights;
 - government regulatory and industry certification approvals for our facilities and products;
 - government policymaking and incentives relating to bio-chemicals; and
 - our ability to maintain an effective system of internal controls and prevent future material weaknesses or significant deficiencies from occurring;
 - our ability to maintain and secure adequate funding for our current business activities;
-

and other risks and uncertainties referenced under “Risk Factors” in our Annual Report on Form 10-K for the fiscal year ended December 31, 2015. You should not place undue reliance on our forward-looking statements. These forward-looking statements speak only as of the date on which the statements were made and are not guarantees of future performance. Except as may be required by applicable law, we do not undertake or intend to update any forward-looking statements after the date of this Quarterly Report on Form 10-Q or the respective dates of documents incorporated by reference herein or therein that include forward-looking statements.

BIOAMBER INC.

Form 10-Q

Table of Contents

| | Page |
|---|------|
| <u>Special Note Regarding Forward-looking Statements</u> | 2 |
| | |
| <u>Part I—Financial Information</u> | |
| | |
| <u>Item 6—Condensed Consolidated Financial Statements (Unaudited)</u> | 5 |
| | |
| <u>Consolidated Statements of Operations (Unaudited)</u> | 5 |
| <u>Consolidated Statements of Comprehensive Loss (Unaudited)</u> | 6 |
| <u>Consolidated Balance Sheets (Unaudited)</u> | 7 |
| <u>Consolidated Statements of Shareholders’ Equity (Unaudited)</u> | 8 |
| <u>Consolidated Statements of Cash Flows (Unaudited)</u> | 9 |
| <u>Notes to Consolidated Financial Statements (Unaudited)</u> | 10 |
| | |
| <u>Item 7—Management’s Discussion and Analysis of Financial Condition and Results of Operations</u> | 26 |
| <u>Item 8—Quantitative and Qualitative Disclosures about Market Risk</u> | 38 |
| <u>Item 9—Controls and Procedures</u> | 38 |
| | |
| <u>Part II—Other Information</u> | |
| | |
| <u>Item 10—Legal Proceedings</u> | 39 |
| <u>Item 11—Risk Factors</u> | 39 |
| <u>Item 12—Use of Proceeds</u> | 39 |
| <u>Item 13—Other Information</u> | 39 |
| <u>Item 14—Exhibits</u> | 41 |
| | |
| <u>Signatures</u> | 42 |

PART I—FINANCIAL INFORMATION

Item 1. Condensed Consolidated Financial Statements
BIOAMBER INC.

Consolidated Statements of Operations

(Unaudited)

| | Three Months Ended September 30, | | Nine Months Ended September 30, | |
|--|-------------------------------------|--------------|------------------------------------|---------------|
| | 2016 | 2015 | 2016 | 2015 |
| | \$ | \$ | \$ | \$ |
| Product sales | 3,661,454 | 351,695 | 7,641,036 | 1,060,844 |
| Cost of goods sold excluding depreciation and amortization | 5,034,580 | 366,854 | 11,577,961 | 1,429,266 |
| Operating expenses | | | | |
| General and administrative | 1,767,342 | 2,220,429 | 7,376,461 | 7,811,701 |
| Research and development, net | 1,773,117 | 5,999,272 | 5,144,760 | 15,567,742 |
| Sales and marketing | 479,382 | 920,705 | 2,219,097 | 3,197,612 |
| Depreciation of property and equipment and amortization of intangible assets | 1,208,444 | 123,490 | 3,600,306 | 288,184 |
| Write-off of intangible assets (Note 5) | — | — | — | 1,141,000 |
| Foreign exchange (gain) loss | (28,912) | 610,086 | 117,067 | 868,219 |
| Operating expenses | 5,199,373 | 9,873,982 | 18,457,691 | 28,874,458 |
| Operating loss | (6,572,499) | (9,889,141) | (22,394,616) | (29,242,880) |
| Amortization of debt discounts | 1,037,600 | 123,370 | 2,478,045 | 281,430 |
| Financial charges (income), net (Note 9) | 3,190,146 | (1,552,042) | (4,660,254) | 2,801,178 |
| Grant income | (4,046,532) | — | (4,046,532) | — |
| Other (income) expense, net | (34,261) | (515) | 137,836 | (21,565) |
| Loss before income taxes | (6,719,452) | (8,459,954) | (16,303,711) | (32,303,923) |
| Income taxes (Note 13) | — | (28,651) | 18,379 | 15,272 |
| Net loss | (6,719,452) | (8,431,303) | (16,322,090) | (32,319,195) |
| Net loss attributable to: | | | | |
| BioAmber Inc. shareholders | (6,158,414) | (7,050,906) | (12,293,434) | (29,428,290) |
| Non-controlling interest | (561,038) | (1,380,397) | (4,028,656) | (2,890,905) |
| | (6,719,452) | (8,431,303) | (16,322,090) | (32,319,195) |
| Net loss per share attributable to BioAmber Inc. shareholders - basic | \$(0.21) | \$(0.27) | \$(0.43) | \$(1.23) |
| Weighted-average of common shares outstanding - basic | 28,811,169 | 25,857,671 | 28,592,360 | 24,007,572 |

The accompanying notes are an integral part of the condensed consolidated financial statements.

BIOAMBER INC.

Consolidated Statements of Comprehensive Loss
(Unaudited)

| | Three Months Ended | | Nine Months Ended | |
|---|--------------------|--------------|-------------------|--------------|
| | September 30, | | September 30, | |
| | 2016 | 2015 | 2016 | 2015 |
| | \$ | \$ | \$ | \$ |
| Net loss | (6,719,452) | (8,431,303) | (16,322,090) | (32,319,195) |
| Foreign currency translation adjustment | (637,801) | (7,032,463) | 6,124,414 | (12,198,824) |
| Total comprehensive loss | (7,357,253) | (15,463,766) | (10,197,676) | (44,518,019) |
| Total comprehensive loss attributable to: | | | | |
| BioAmber Inc. shareholders | (6,535,317) | (11,993,577) | (8,254,388) | (37,913,629) |
| Non-controlling interest | (821,936) | (3,470,189) | (1,943,288) | (6,604,390) |
| | (7,357,253) | (15,463,766) | (10,197,676) | (44,518,019) |

The accompanying notes are an integral part of the condensed consolidated financial statements.

BIOAMBER INC.

Consolidated Balance Sheets

(Unaudited)

| | As of September 30, 2016 \$ | As of December 31, 2015 \$ |
|---|---|-------------------------------------|
| Assets | | |
| Current assets | | |
| Cash and cash equivalents | 15,939,611 | 6,973,591 |
| Accounts receivable | 3,973,067 | 978,634 |
| Inventories (Note 3) | 2,545,253 | 1,749,224 |
| Prepaid expenses and deposits | 525,567 | 579,864 |
| Valued added tax, income taxes and other receivables | 429,879 | 562,800 |
| Total current assets | 23,413,377 | 10,844,113 |
| Property and equipment, net (Note 4) | 125,821,203 | 122,542,688 |
| Investment in equity method and cost investments (Note 2) | 447,035 | 447,035 |
| Intangible assets, net (Note 5) | 6,184,360 | 6,352,091 |
| Goodwill | 625,364 | 625,364 |
| Restricted cash | 572,850 | 540,975 |
| Deferred financing costs | 545,894 | 434,941 |
| Total assets | 157,610,083 | 141,787,207 |
| Liabilities | | |
| Current liabilities | | |
| Accounts payable and accrued liabilities (Note 6) | 5,478,275 | 15,834,274 |
| Income taxes payable | 117,932 | 112,256 |
| Deferred grants (Note 8) | — | 3,437,791 |
| Short-term portion of long-term debt (Note 7) | 23,750,206 | 10,297,542 |
| Total current liabilities | 29,346,413 | 29,681,863 |
| Long-term debt (Note 7) | 30,715,257 | 28,491,549 |
| Warrants financial liability (Note 12) | 4,231,012 | 12,231,906 |
| Other long-term liabilities | 261,999 | 443,135 |
| Total liabilities | 64,554,681 | 70,848,453 |
| Commitments and contingencies (Note 10) | | |
| Redeemable non-controlling interest (Note 11) | 40,366,347 | 24,583,636 |
| Equity | | |
| Share capital | | |
| Common stock: | | |
| \$0.01 par value per share; 250,000,000 authorized, 28,836,983 and 26,181,753 | | |
| issued and outstanding at September 30, 2016 and December 31, 2015, | | |
| respectively | 288,369 | 261,817 |
| Additional paid-in capital | 273,399,458 | 258,792,171 |

Edgar Filing: BioAmber Inc. - Form 10-Q

| | | |
|--|---------------|---------------|
| Warrants (Note 12) | 702,562 | 748,075 |
| Accumulated deficit | (210,583,331) | (198,289,897) |
| Accumulated other comprehensive loss | (11,118,003) | (15,157,048) |
| Total BioAmber Inc. shareholders' equity | 52,689,055 | 46,355,118 |
| Total liabilities and equity | 157,610,083 | 141,787,207 |

The accompanying notes are an integral part of the condensed consolidated financial statements.

BIOAMBER INC.

Consolidated Statements of Shareholders' Equity

(in U.S. dollars, except for shares data)

(Unaudited)

| | Common stock | | Additional paid-in capital | Warrants | | Accumulated deficit | Accumulated other comprehensive loss | Total shareholders' equity |
|---|--------------|--------------------|----------------------------------|----------|--------------------|------------------------|---|----------------------------------|
| | Shares | Par value \$ | \$ | Shares | Par value \$ | \$ | \$ | \$ |
| Balance at December 31, 2015 | 26,181,753 | 261,817 | 258,792,171 | 491,236 | 748,075 | (198,289,897) | (15,157,048) | 46,355,118 |
| Stock-based compensation (Note 12) | — | — | 2,686,065 | — | — | — | — | 2,686,065 |
| Issuance of shares, net of issuance costs | 2,600,000 | 26,000 | 11,917,683 | — | — | — | — | 11,943,683 |
| Warrants exercised/expired /cancelled | 55,230 | 552 | 3,539 | (59,885) | (45,513) | — | — | (41,422) |
| Net loss | — | — | — | — | — | (12,293,434) | — | (12,293,434) |
| Foreign currency translation | — | — | — | — | — | — | 4,039,045 | 4,039,045 |
| Balance at September 30, 2016 | 28,836,983 | 288,369 | 273,399,458 | 431,351 | 702,562 | (210,583,331) | (11,118,003) | 52,689,055 |

The accompanying notes are integral part of the condensed consolidated financial statements.

BIOAMBER INC.

Consolidated Statements of Cash Flows

(Unaudited)

| | Nine Months Ended September 30, | |
|--|------------------------------------|--------------|
| | 2016 | 2015 |
| | \$ | \$ |
| Cash flows from operating activities | | |
| Net loss | (16,322,090) | (32,319,195) |
| Adjustments to reconcile net loss to cash: | | |
| Stock-based compensation | 2,686,065 | 3,854,675 |
| Depreciation of property and equipment | | |
| and amortization of intangible assets | 3,600,306 | 288,184 |
| Write-off intangible assets | — | 1,141,000 |
| Loss on disposals of property and equipment | 133,141 | — |
| Amortization of debt discounts | 2,478,045 | 281,430 |
| Other long-term liabilities | (16,858) | 34,010 |
| Financial charges (income), net (Note 9) | (8,102,915) | 1,040,608 |
| Grant income | (4,046,532) | — |
| Changes in operating assets and liabilities | | |
| Change in accounts receivable | (2,903,292) | (474,027) |
| Change in inventories | (738,843) | 494,392 |
| Change in prepaid expenses and deposits | 108,152 | (145,598) |
| Change in value added tax, income taxes and other receivables | 215,989 | 2,115,019 |
| Change in accounts payable to ARD | — | (983,465) |
| Change in accounts payable and accrued liabilities | (10,191,943) | 2,182,397 |
| Net cash used in operating activities | (33,100,775) | (22,490,570) |
| Cash flows from investing activities | | |
| Acquisition of property and equipment and intangible asset, net of disposals | (540,411) | (62,465,211) |
| Investment in equity method and cost investments (Note 2) | — | (412,433) |
| Net cash used in investing activities | (540,411) | (62,877,644) |
| Cash flows from financing activities | | |
| Deferred financing costs | (1,369,476) | (882,485) |
| Issuance of short-term and long-term debt (Note 7) | 26,929,000 | 21,967,288 |
| Repayment of long-term debt (Note 7) | (14,080,737) | (585,385) |
| Government grants (Note 8) | 1,108,262 | 7,946,840 |
| Net proceeds from issuance of common shares | 11,918,373 | 33,114,136 |
| Proceeds from issuance of shares by a subsidiary (Note 11) | 17,726,000 | 8,896,696 |
| Net cash provided by financing activities | 42,231,422 | 70,457,090 |
| Foreign exchange impact on cash and cash equivalents | 375,784 | (1,926,016) |
| Increase (decrease) in cash and cash equivalents | 8,966,020 | (16,837,140) |
| Cash and cash equivalents, beginning of period | 6,973,591 | 51,042,752 |
| Cash and cash equivalents, end of period | 15,939,611 | 34,205,612 |
| Supplemental cash flow information: | | |
| Non-cash transactions: | | |
| Deferred financing costs related to the second public offering not | — | 60,000 |

| | | |
|--|-----------|-----------|
| yet paid | | |
| Construction in-progress costs and fixed assets not yet paid | — | 9,626,642 |
| Amortization of debt discounts capitalized to fixed assets | — | 1,669,021 |
| Interest paid | 1,716,727 | 2,001,533 |

The accompanying notes are an integral part of the condensed consolidated financial statements.

BIOAMBER INC.

Notes to Condensed Consolidated Financial Statements

(Unaudited)

1. Summary of significant accounting policies

Basis of presentation

The accompanying unaudited condensed consolidated financial statements have been prepared in accordance with Securities and Exchange ("SEC") rules and regulations and using the same accounting policies as described in Note 2 of the audited consolidated financial statements included in BioAmber Inc. (BioAmber or the Company) Annual Report on Form 10-K for the fiscal year ended December 31, 2015, except for the adoption of the Accounting Standard Update 2015-03, as referenced in paragraph Retrospective changes below. Accordingly, these unaudited condensed consolidated financial statements should be read in conjunction with the audited consolidated financial statements and notes included in the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2015.

The preparation of financial statements in conformity with generally accepted accounting principles in the United States of America ("US GAAP") requires management to make estimates and assumptions that affect the amounts reported in the condensed consolidated financial statements and accompanying notes. In the opinion of the Company's management, the condensed consolidated financial statements reflect all adjustments, which are normal and recurring in nature, necessary for fair financial statement presentation. The Company's management bases its estimates on various assumptions and historical experience, which are believed to be reasonable; however, due to the inherent nature of estimates, actual results may differ significantly due to changed conditions or assumptions. The results of operations for the three and nine months ended September 30, 2016 are not necessarily indicative of results to be expected for the fiscal year ending December 31, 2016 or any other future period.

Risk and uncertainties

BioAmber is an industrial biotechnology company producing sustainable chemicals. The Company's activities since inception have consisted principally of raising capital for performing research and development activities, developing markets related to its bio-succinic acid product and derived products, acquiring technology patents, producing and selling bio-succinic acid from a large-scale demonstration facility in Pomacle, France and from its Sarnia facility, and building its Sarnia facility. The attainment of profitable operations is dependent upon future events, including operation of the commercial-scale manufacturing facility in Sarnia, Ontario, further advancing its existing commercial arrangements with strategic partners to generate revenue from the sale of its products that will support the Company's cost structure, gaining market acceptance for its bio-succinic acid, its derivatives and other building block chemicals, obtaining adequate financing to complete its development activities, and attracting and retaining qualified personnel.

Retrospective changes

The Company adopted Accounting Standards Update ("ASU") 2015-03 Simplifying the Presentation of Debt Issuance Costs, on a retrospective basis in the three months ended March 31, 2016. In accordance with the adoption of this guidance, prior year amounts related to deferred debt issuance costs associated with long-term debt have been adjusted

for the retrospective change in accounting principle. As of December 31, 2015, the Company has reclassified \$1.3 million of deferred financing costs associated with long-term debt in the consolidated balance sheet, against the long-term debt. Refer to Note 7 for further information.

Cost of Goods Sold

Cost of goods sold includes costs directly associated with finish goods production, such as direct materials, direct labor, utilities and certain plant overhead. Cost of goods sold also includes abnormal production costs from the Sarnia facility production volume ramp-up.

Net loss per share

The Company computes net loss per share in accordance with FASB ASC 260, Earnings per share, under which basic net loss per share attributable to common shareholders is computed by dividing net loss attributable to common shareholders by the basic weighted-average number of common shares outstanding during the period. Shares issued and reacquired during the period are weighted for the portion of the period that they were outstanding. The computation of diluted earnings per share ("EPS") is similar to the computation of the basic EPS except that the denominator is increased to include the number of additional shares of common stock that would have been outstanding if all of the potentially dilutive shares of common stock had been issued. In addition, in computing the dilutive effect of convertible securities, the numerator is adjusted to add back any convertible preferred dividends and the after-tax amount of interest recognized in the period associated with any convertible debt. The numerator is also adjusted for any other changes in income or loss that would result from the assumed conversion of those potential shares of common stock such as profit-sharing expenses. Common equivalent shares are excluded from the diluted EPS calculation if their effect is anti-dilutive. Losses have been incurred in each period since inception, at the exception of the previous quarter; accordingly, diluted loss per share is not presented.

Recently adopted and recently issued accounting guidance

In May 2014, the FASB issued ASU No. 2014-09, Revenue Recognition - Revenue from Contracts with Customers, which is a comprehensive revenue recognition standard that will supersede nearly all existing revenue recognition guidance under U.S. GAAP. The standard is effective for interim and annual periods beginning after December 15, 2017, and either full retrospective adoption or modified retrospective adoption is permitted. The Company is in the process of evaluating the impact of the standard on its consolidated financial statements.

In August 2014, the FASB issued ASU No. 2014-15 Presentation of Financial Statements - Going Concern (Subtopic 205-40): Disclosure of Uncertainties about an Entity's Ability to Continue as a Going Concern ("ASU 2014-15"). This ASU requires management to assess and evaluate whether conditions or events exist, considered in the aggregate, that raise substantial doubt about the entity's ability to continue as a going concern within one year after the financial statements issue date. The provisions of ASU 2014-15 are effective for reporting periods beginning after December 15, 2016; early adoption is permitted. Based on the outcome of our financial initiatives, additional disclosures may be required upon application of the ASU.

In July 2015, the FASB issued ASU 2015-11, Simplifying the Measurement of Inventory ("ASU-2015-11"). ASU 2015-11 applies to inventory that is measured using first-in, first-out ("FIFO") or average cost. ASU 2015-11 requires inventory to be measured at the lower of cost and net realizable value. Net realizable value is the estimated selling price in the ordinary course of business, less reasonably predictable costs of completion, disposal and transportation. The amendments in ASU 2015-11 more closely align the measurement of inventory in U.S. GAAP with the measurement of inventory in International Financial Reporting Standards ("IFRS"). ASU 2015-11 is effective for fiscal years beginning after December 31, 2016. The Company is in the process of evaluating the impact of the standard on its consolidated financial statements.

In January 2016, the FASB issued ASU No. 2016-01, Recognition and Measurement of Financial Assets and Financial Liabilities, which among other changes in accounting and disclosure requirements, replaces the cost method of accounting for non-marketable equity securities with a model for recognizing impairments and observable price changes, and also eliminates the available-for-sale classification for marketable equity securities. Under the new guidance, other than when the consolidation or equity method of accounting is utilized, changes in the fair value of equity securities are to be recognized in earnings. This guidance will be effective for interim and annual reporting periods beginning after December 15, 2017. The Company is in the process of evaluating the impact of the standard on its consolidated financial statements.

In February 2016, the FASB issued ASU 2016-02, Leases. The new standard establishes a right-of-use ("ROU") model that requires a lessee to record a ROU asset and a lease liability on the balance sheet for all leases with terms longer than 12 months. Leases will be classified as either finance or operating, with classification affecting the pattern of expense recognition in the income statement. The new standard is effective for fiscal years beginning after December 15, 2018, including interim periods within those fiscal years. A modified retrospective transition approach is required for lessees for capital and operating leases existing at, or entered into after, the beginning of the earliest comparative period presented in the financial statements, with certain practical expedients available. The Company is in the process of evaluating the impact of the standard on its consolidated financial statements.

In March 2016, the FASB issued ASU No. 2016-09, Compensation—Stock Compensation (Topic 718). This standard makes several modifications to Topic 718 related to the accounting for forfeitures, employer tax withholding on share-based compensation and the financial statement presentation of excess tax benefits or deficiencies. ASU 2016-09 also clarifies the statement of cash flows presentation for certain components of share-based awards. The standard is effective for interim and annual reporting periods beginning after December 15, 2016, although early adoption is permitted. The Company is in the process of evaluating the impact of the standard on its consolidated financial statements.

In August 2016, the FASB issued ASU 2016-15 “Statement of Cash Flows – Classification of Certain Cash Receipts and Cash Payments” to address diversity in practice on certain specific cash flow issues. The ASU will be effective for the Company for the fiscal years beginning after December 15, 2017, including interim periods within those fiscal years. Early adoption is permitted. The Company is in the process of evaluating the impact of the standard on its consolidated financial statements.

2. Equity and Cost Investments

Sinoven, the Company’s wholly-owned subsidiary and a third-party, NatureWorks LLC, are both 50% holders of the joint venture AmberWorks.

AmberWorks had a net loss of \$nil for the three and nine months ended September 30, 2016 and 2015, respectively. Sinoven’s share of the net loss amounted to \$nil for those periods.

Edgar Filing: BioAmber Inc. - Form 10-Q

AmberWorks had total assets of \$69,202 and total liabilities of \$nil as of September 30, 2016 and December 31, 2015, respectively. Sinoven's share of net assets amounted to \$34,601 as of those periods, respectively.

On February 5, 2015, the Company invested \$412,434 (CAD\$ 500,000) in Comet Biorefining Inc., a start-up private company, which represented a 6.6% ownership interest. This investment is recorded using the cost investment method.

3. Inventories

| | September 30, 2016 \$ | December 31, 2015 \$ |
|--------------------------|--------------------------------|-------------------------------|
| Finished goods | 1,690,504 | 904,846 |
| Work in progress | 77,201 | 94,675 |
| Raw material | 615,807 | 610,773 |
| Supplies and spare parts | 161,741 | 138,930 |
| Total | 2,545,253 | 1,749,224 |

The company recorded an inventory reserve of approximately \$nil and \$300,000 in the three and nine months ended September 30, 2015, respectively, and \$nil in the three and nine months ended September 30, 2016.

4. Property and equipment

| | Estimated Useful Life (years) | September 30, 2016 \$ | December 31, 2015 \$ |
|---|--|--------------------------------|----------------------------|
| Land | | 272,663 | 242,957 |
| Building | 40 | 89,491,026 | 85,597,851 |
| Machinery and equipment | 5 - 20 | 33,461,595 | 31,407,524 |
| Furniture and fixtures | 5 - 8 | 116,432 | 122,285 |
| Computers, office equipment and peripherals | 3 - 7 | 188,583 | 182,720 |
| Leasehold improvement | 10 | 336,675 | 330,283 |
| Construction in-progress | | 6,431,376 | 5,902,054 |
| | | 130,298,350 | 123,785,674 |
| Less: accumulated depreciation | | (4,477,147) | (1,242,986) |
| Property and equipment, net | | 125,821,203 | 122,542,688 |

Depreciation expense is recorded as an operating expense in the consolidated statements of operations and amounted to \$1,155,707 and \$105,411 for the three months ended September 30, 2016 and 2015, respectively and to \$3,441,217 and \$238,329 for the nine months ended September 30, 2016 and 2015 respectively.

During the three months ended September 30, 2016, a portion of the holdback received from Sustainable Development Technology Canada grant for an amount of \$703,793 was reclassified against the property and equipment. Refer to note 8 for details.

5. Intangible assets

| | September 30, 2016 \$ | December 31, 2015 \$ |
|---------------------------------------|--------------------------------|-------------------------------|
| License with indefinite-lived | 3,106,767 | 3,106,767 |
| Acquired licenses with definite-lived | 3,017,550 | 3,017,550 |
| Computer software and licenses | 390,918 | 398,048 |
| Less: accumulated amortization | (330,875) | (170,274) |
| Intangible assets, net | 6,184,360 | 6,352,091 |

Amortization expense is recorded as an operating expense in the consolidated statements of operations and amounted to \$52,737 and \$18,079 for the three months ended September 30, 2016 and 2015, respectively and to \$159,089 and \$49,855 for the nine months ended September 30, 2016 and 2015 respectively.

On April 20, 2015, the Company elected to terminate its license with DuPont for their catalysts following the decision to pursue with the BDO technology licensed from Davy for all future plants, in addition to the planned 100,000 ton per year capacity plant. As a result, the carrying value of the DuPont license of \$1,141,000 was written off during the three months ended September 30, 2015.

6. Accounts payable and accrued liabilities

Accounts payable and accrued liabilities consisted of the following:

| | September 30, 2016 \$ | December 31, 2015 \$ |
|---------------------------|--------------------------------|-------------------------------|
| Trade accounts payable | 3,568,194 | 12,006,592 |
| Accrued payroll and bonus | 867,858 | 1,049,637 |
| Consulting and legal fees | 407,067 | 2,021,858 |
| Accrued interest | 342,836 | 282,506 |
| Other | 292,320 | 473,681 |
| Total | 5,478,275 | 15,834,274 |

7. Short-term and Long-term debt

i) Sustainable Jobs and Investment Fund ("SJIF")

On September 30, 2011, BioAmber Sarnia and the Minister of Economic Development and Trade of Ontario, Canada (Sustainable Jobs Innovation Fund) entered into an agreement pursuant to which a loan in the amount of CAD\$15,000,000, was granted to BioAmber Sarnia, according to the following principal terms:

the loan is interest free during the first five years provided BioAmber Sarnia creates or retains an average of 31 jobs per year, calculated on an annual basis;

- the loan will bear interest from the fifth anniversary date of its disbursement at an annual rate of 3.98% (or 5.98% if BioAmber Sarnia does not fully achieve the cumulative job target for the first five years);

the principal will be repayable in five annual equal installments from the sixth anniversary date of the disbursement of the loan;

the loan is secured by a guarantee from BioAmber and Mitsui & Co., Ltd., the non-controlling shareholder of BioAmber Sarnia (the guarantee being limited to its percentage of ownership held in BioAmber Sarnia); and

the loan is secured by (i) a general security agreement representing a valid charge on BioAmber Sarnia's present and future accounts receivable, inventory, equipment and other personal property and (ii) a valid charge against the leasehold interest on the portion of the real property located in Sarnia Ontario, Canada and leased to BioAmber Sarnia.

As of September 30, 2016, all disbursements were received. The fair value of the loan was calculated using the method of the discounted future cash payments of principal and interest over the term of the loan. The discount rate used was between 12% and 15%, being the interest rates a loan with similar terms and conditions would carry.

The difference between the face value of the loan and the discounted amount of the loan was recorded as a short-term deferred grant and subsequently reclassified to reduce the cost of construction in-progress.

The discounted loan is being accreted to its face value through a charge in the consolidated statement of operations using the effective interest method over the term of the loan.

ii) Sustainable Chemistry Alliance (“SCA”)

In November 2011, BioAmber Sarnia entered into a loan agreement with SCA in the amount of CAD\$500,000. The loan was interest free until November 30, 2013, and the unpaid balance of the loan subsequently bears interest at the rate of 5% per annum compounded monthly. The loan’s principal is repayable in 20 equal quarterly installments of CAD\$25,000 from November 2015 to November 2020. The loan agreement contains various legal and financial covenants including i) third party credit facilities which could not exceed originally CAD\$45 million in the aggregate as long as any principal of the loan remains outstanding, and ii) dividends may not be declared or paid without the consent of the lender. The loan agreement was amended to increase the third party credit facilities from CAD\$45 million to CAD\$60 million in the aggregate in June 2014, and subsequently from CAD\$60 million to CAD\$67.5 million in the aggregate in March 2016. These covenants were met as of September 30, 2016.

The loan was originally recorded at the discounted amount of the future cash payments of principal and interest over the term of the loan. The discount rate used was 15%, being the interest rate a loan with similar terms and conditions would carry.

The difference between the face value of the loan and the discounted amount of the loan was recorded as a deferred grant, and subsequently reclassified against operating expenses during the period ended December 31, 2015.

The discounted loan is being accreted to its face value through a charge in the consolidated statement of operations using the effective interest method over the term of the loan.

iii) Federal Economic Development Agency (“FEDDEV”)

On September 30, 2011, BioAmber Sarnia and FEDDEV entered into a contribution agreement pursuant to which a loan of up to a maximum amount of CAD\$12 million, was granted to BioAmber Sarnia. The loan is non-interest bearing with original repayment of principal from October 2013 to October 2018 in 60 monthly installments. The repayment terms were later modified as described below.

The loan agreement contains various legal and financial covenants ordinarily found in such government agency loan agreements. In addition, the following specific covenants also apply:

(a) the Company will carry appropriate amounts of liability and casualty insurance during the duration of the loan agreement;

(b) the Company will not allow change of control without prior written consent of the Minister.

These covenants were met as of September 30, 2016.

On March 20, 2013, BioAmber Sarnia agreed with FEDDEV to amend the repayment of principal from the period October 2013 to October 2018, to the period October 2014 to October 2019. In May 2014, the repayment of principal was subsequently amended to the period October 2015 to October 2020. The Company recorded the impact of the amendments in accordance with FASB ASC 470-50, Debt Modifications and Extinguishments. Accordingly, the amendments were recorded as a debt extinguishment and the issuance of new debt, with new terms.

As of September 30, 2016, all disbursements were received. The fair value of the loan was calculated using the method of the discounted future cash payments of principal and interest over the term of the loan. The discount rate used was between 12% and 15%, being the interest rates a loan with similar terms and conditions would carry.

iv) Minister of Agriculture and Agri-Food of Canada (“AAFC”)

On March 10, 2014, BioAmber Sarnia entered into a repayable contribution agreement in the form of a non-interest bearing loan with the Minister of Agriculture and Agri-Food of Canada in the amount of CAD\$10 million, for the

AgriInnovation Program. This loan provided progressive disbursements as eligible costs were incurred for building construction, installation of equipment and start-up and commissioning of the Sarnia facility. The loan is repayable in equal, monthly installments beginning March 31, 2016 through March 31, 2026 and it contains various legal and financial covenants ordinarily found in such government agency loan agreements. These covenants were met as of September 30, 2016.

As of September 30, 2016, all disbursements were received. The fair value of the loan was calculated using the method of the discounted future cash payments of principal and interest over the term of the loan. The discount rate used was 12%, being the interest rate a loan with similar terms and conditions would carry.

v) Comerica Bank, Export Development Canada and Farm Credit Canada (“EDC”)

On June 20, 2014, BioAmber Sarnia signed a loan agreement with a financial consortium, comprised of Comerica Bank, Export Development Canada and Farm Credit Canada for a senior secured loan in the principal amount of CAD\$20.0 million, which was disbursed on May 12, 2015. The loan’s principal is repayable in 26 equal, quarterly installments beginning on September 30, 2015, and at floating interest rate per annum based on the greater of (i) the Canadian prime rate and (ii) the Canadian dealer offered rate plus 1%, in either case plus an interest spread of 5%. There was an initial interest-only period from draw down of the term loan until the first payment of principal. The disbursement of the loan, net of a 2.5% upfront loan fee of CAD\$500,000, was recorded as debt discount and is amortized over the estimated term of the loan using the effective interest method. BioAmber Sarnia paid a 1.0% per annum commitment fee on the undrawn amount, until the drawdown.

The loan was originally recorded at the discounted amount of the future cash payments of principal and interest over the term of the loan. The discount rate used was 12%, being the interest rate a loan with similar terms and conditions would carry. The difference between the face value of the loan and the discounted amount of the loan was recorded as a grant applied as reduction of the cost of construction in-progress.

BioAmber Sarnia may prepay all or a portion of the loan outstanding from and after the date of the first principal repayment, without penalty.

BioAmber Sarnia’s obligations under the loan are secured by (i) a security interest on all of BioAmber Sarnia’s assets and (ii) a pledge of all the shares of BioAmber Sarnia. In addition, the Company provides the lenders with a guarantee representing 70% of the secured obligations under the loan, and Mitsui & Co., Ltd. provides a guarantee representing 30% of the secured obligations under the loan that is capped at CAD\$6.0 million plus all accrued interest on the secured obligations and fees and expenses. The proceeds of the loan were used by BioAmber Sarnia to complete the ongoing construction of the Sarnia Plant and fund its startup and commissioning.

The loan agreement contains certain representations and warranties, affirmative covenants, negative covenants and conditions that are customarily required for similar financings, including in connection with the disbursement of the loan. On August 9, 2016, the loan agreement was amended, to adjust the financial covenants to require BioAmber Sarnia to maintain a minimum debt service ratio of 1.75 on a historical basis, at all times, to be certified monthly, during the term of the loan starting September 30, 2017. Financial covenants also include a minimum cash balance requirement of CAD\$4.0 million, and a minimum gross revenue from product sales covenant. The agreement also contains customary events of default (subject, in certain instances, to specified grace periods) including, but not limited to, the failure to make payments of interest or premium, if any, on, or principal under the loan, the failure to comply with certain covenants and agreements specified in the agreement, the occurrence of a material adverse effect, defaults in respect of certain other indebtedness and agreements, and certain events of insolvency. If an event of default occurs, the principal, premium, if any, interest and any other monetary obligations on all the then outstanding amounts under the loan may become due and payable immediately. All applicable covenants as of September 30, 2016 have been met.

vi) Tennenbaum Capital Partners, LLC (“TCP”)

On December 17, 2014, the Company entered into a Loan and Security Agreement (the “Agreement”) with funds managed by TCP. The proceeds received were used to repay in full, the Loan and Security Agreement with Hercules Technology Growth Capital Inc. (“HTGC”) that was entered into on June 27, 2013, and for general corporate purposes.

The senior secured term loan of \$25 million (the “Facility”) was funded on December 18, 2014, net of a 2.0% commitment fee. The term loan is repayable over 36 months after closing at a floating interest rate per annum that is the greater of 9.50% or the 3 month LIBOR rate plus 9.27%, and is subject to an end of term charge of 8.25% based on the \$25 million loaned payable on the date on which the term loan is paid or becomes due and payable in full. There was an initial interest-only period until September 30, 2015. At its option, the Company may prepay some or all of the loan balance, subject to a prepayment fee equal to 3% of the amount prepaid during the term of the Agreement (and a pro rata portion of the end of term charge if the prepayment is less than the full amount of the Facility).

The loan obligations are secured by a security interest on substantially all of the Company’s assets (subject to certain exceptions), including its intellectual property, but excluding certain identified licenses from third parties and its equity interest in its subsidiary, BioAmber Sarnia subject to the conditions specified in the Agreement. The security interest does not apply to any assets owned by BioAmber Sarnia, the entity that owns the Company’s Sarnia facility.

On July 29, 2015, the Company signed an amendment to the TCP loan agreement (the “TCP Amendment”) to increase the permitted investment in BioAmber Sarnia from \$10 million to \$25 million after July 29, 2015. In exchange, the restricted cash balance requirement increased from \$12.5 million to \$15 million from July 29, 2015 to December 31, 2015. Pursuant the TCP Amendment, a fee of \$250,000 was paid during the three months ended September 30, 2015, and during the three months ended March 31, 2016.

On December 16, 2015, the Company signed another amendment to the TCP loan agreement to prepay approximately \$12.5 million of the outstanding principal amount of the loan (the “Early Paydown”), bringing the principal outstanding balance of the loan to \$10.0 million as of that date. Pursuant to the amendment, the requirement that the Company maintain a minimum cash balance was eliminated.

In addition, in connection with the Early Paydown, the Company paid half of the end of term charge of \$514,781, and the prepayment fee of \$374,386 and the remaining other half of the end of term fee associated with the Early Paydown was deferred, interest free, until the closing of the public offering in January 2016. Beginning with the payment due on February 1, 2016, the outstanding principal balance of the loan is payable in equal monthly installments so that all principal and interest accrued thereon shall be repaid on the maturity date, which is December 1, 2017. In addition, pursuant to this amendment, the amount of indebtedness that the Company is permitted to allow BioAmber Sarnia to incur increased to CAD \$72.5 million less the aggregate repayments of principal on such indebtedness.

On September 9, 2016, the Company voluntarily paid off the outstanding balance and terminated the TCP loan agreement. The payoff amount of \$8.0 million included the outstanding principal amount of \$6.7 million, an end of term charge of \$1.0 million, a prepayment fee of \$202,116, accrued interest of \$14,591, and other legal fees. The remaining debt issuance costs of \$392,757 was written off and recorded as financial charges in the Consolidated Statement of Operations. In connection with such repayment, TCP terminated its security interest in the assets of the Company which were subject to the TCP Loan Agreement.

vii) BDC Capital Inc. (“BDC”)

On April 20, 2016, BDC, a wholly owned subsidiary of Business Development Bank of Canada, accepted to enter into a binding Letter of Offer of financing (the “Letter of Offer”) with BioAmber Sarnia. The proceeds will be used to fund the working capital of the BioAmber Sarnia’s facility.

Pursuant to the Letter of Offer, the Lender has agreed to make a secured term loan (“BDC Loan”) of CAD\$10 million to BioAmber Sarnia which will be disbursed to BioAmber Sarnia following the fulfillment of certain customary conditions more fully described in the Letter of Offer. The Loan is repayable in 59 equal, monthly installments of CAD\$165,000 from April 15, 2017 until February 15, 2022, and by way of one balloon payment of CAD\$265,000, payable on March 15, 2022. The Loan will bear interest at a fixed interest rate of 13% per annum, payable monthly on the 15th day of the month commencing on the next occurring payment date following the first advance on the Loan. The Lender may cancel any portion of the Loan not disbursed after six months from February 16, 2016.

On May 12, 2016, an amendment to the BDC Loan was signed to modify the commencement instalment repayment date from April 15, 2017 to October 15, 2017 and continuing monthly until September 15, 2022. On July 22, 2016, a second amendment was signed to modify certain debt covenants, including the term debt to tangible equity ratio of maximum of 0.85:1, and the debt service ratio of at least 1.10:1 commencing on the quarter ending December 31, 2017, and increasing to 1.50:1 for the quarter ending June 30, 2019. In addition, pursuant to this amendment, the fixed interest rate was adjusted to 14.90% per year, which can vary upon achievement of certain milestones. All applicable covenants as of September 30, 2016 have been met.

The BDC Loan proceeds were received on August 10, 2016, and recorded as long-term debt, net of debt issuance costs of \$378,108.

viii) Bridging Finance Inc. (“Bridging”)

On September 9, 2016, the “Company” entered into an agreement for a demand non-revolving credit facility (the “Facility”) with Bridging. The proceeds were used to repay in full the outstanding principal amount of its loan with TCP and will be used to fund general corporate expenses.

Pursuant to the Agreement, Bridging has provided CAD\$25 million to the Company, net of 1.50% of financing fees paid at the time of the disbursement. The Facility is repayable at the earlier of the date of demand or September 30, 2017. The Facility will bear interest at an annual interest rate of the Bank of Montreal prime rate plus 10.8%, calculated on a daily outstanding balance of the Facility and compounded monthly, payable on the last business day of each month. Subject to (i) the right of the Lender to demand the payment of the loan at any time (subject to a grace period of 15 days) or (ii) the occurrence of an event of default, the principal of the loan will be reimbursable in one lump-sum payment at its maturity date. On the occurrence of an event of default, as more fully described in the agreement, interest shall be calculated at annual rate of 21% per annum calculated and compounded as aforesaid.

After April 1, 2017, the Company may prepay a portion or all of the Facility outstanding at any time, (i) without any fee or penalty upon at least 90 days prior written notice to the Lender, or (ii) with a prepayment penalty of up to 90 days of interest if the Company provides the lender with a prepayment notice of less than 90 days.

The loan obligations are secured by a security interest on substantially all of the Company's assets (subject to certain exceptions), including its intellectual property, but excluding certain identified licenses from third parties and its equity interest in its subsidiary, BioAmber Sarnia Inc.

The Facility contains certain representations and warranties, affirmative covenants, negative covenants and conditions that are customarily required for similar financings. Covenants include a requirement on the part of the Company to, within two business days, use all proceeds received from (i) the exercise of any of the Company's outstanding warrants issued in connection with its initial public offering completed in May 2013, and (ii) the issuance of shares in connection with any equity financing, to repay all or a portion of the then outstanding Facility. The Agreement also contains customary events of default including, but not limited to, the failure to make interest payments, the failure to comply with certain covenants specified in the Agreement, the occurrence of a material adverse effect, defaults in respect of certain other indebtedness and agreements, and certain events of insolvency.

The balance of the outstanding long-term debt is as follows:

| | September 30, 2016 \$ | December 31, 2015 \$ |
|--|--------------------------------|-------------------------------|
| Sustainable Chemistry Alliance: | | |
| Face value (CAD \$465,519) | 355,564 | 342,618 |
| Less: debt discount | (184,774) | (174,493) |
| Amortization of debt discount | 128,123 | 106,312 |
| Less: short-term portion of debt | (76,380) | (72,130) |
| | 222,533 | 202,307 |
| Sustainable Jobs and Investment Fund: | | |
| Face value (CAD \$15,000,000) | 11,457,000 | 10,819,500 |
| Less: debt discount | (5,248,880) | (4,956,820) |
| Amortization of debt discount | 1,652,496 | 912,491 |
| | 7,860,616 | 6,775,171 |
| Federal Economic Development Agency: | | |
| Face value (CAD \$9,600,000) | 7,332,480 | 8,222,820 |
| Less: debt discount | (3,252,629) | (3,071,644) |
| Less: short-term portion of debt | (1,833,120) | (1,731,120) |
| Gain on debt extinguishment | (617,461) | (583,103) |
| Amortization of debt discount | 2,188,582 | 1,489,949 |
| | 3,817,852 | 4,326,902 |
| Minister of Agriculture and Agri-Food Canada: | | |
| Face value (CAD \$9,500,000) | 7,256,100 | 7,213,000 |
| Less: debt discount | (3,625,090) | (3,423,379) |
| Amortization of debt discount | 729,961 | 504,531 |
| Less: short-term portion of debt | (763,800) | (661,743) |
| | 3,597,171 | 3,632,409 |
| Tennenbaum Capital Partners, LLC : | | |
| Face value | — | 10,000,000 |
| Less: debt discount (1) | — | (925,000) |
| Amortization of debt discount (1) | — | 268,105 |
| End of term charge | — | 514,780 |
| Less: short-term portion of debt | — | (5,058,318) |
| | — | 4,799,567 |
| EDC: | | |
| Face value (CAD \$16,153,846) | 12,338,308 | 13,871,154 |
| Less: debt discount (2) | (2,939,174) | (2,775,630) |
| Amortization of debt discount (2) | 897,322 | 433,900 |
| Less: short-term portion of debt | (2,350,154) | (2,774,231) |
| | 7,946,302 | 8,755,193 |
| BDC: | | |
| Face value (CAD \$10,000,000) | 7,638,000 | — |

Edgar Filing: BioAmber Inc. - Form 10-Q

| | | |
|------------------------------------|--------------|------------|
| Less: debt issuance cost | (378,108) | — |
| Amortization of debt discount | 10,891 | — |
| | 7,270,783 | — |
| Bridging: | | |
| Face value (CAD \$25,000,000) | 19,095,000 | — |
| Less: debt issuance cost | (380,945) | — |
| Amortization of debt issuance cost | 12,698 | — |
| Less: short-term portion of debt | (18,726,753) | — |
| | — | — |
| Long-term debt, net | 30,715,257 | 28,491,549 |

18

- [1] Includes deferred debt financings costs of \$425,000 as of December 31, 2015, and amortization of debt financing costs of \$101,437, as a result of the retrospective adoption of Accounting Standard Update (ASU) 2015-03 on January 1, 2016. Prior to the ASU adoption, deferred debt issuance costs were presented in deferred financing costs.
- [2] Includes deferred debt financings costs of \$1,146,656 and \$1,082,853 as of September 30, 2016 and December 31, 2015, respectively, and amortization of debt financing costs of \$241,942 and \$106,428, as a result of the retrospective adoption of Accounting Standard Update (ASU) 2015-03 on January 1, 2016. Prior to the ASU adoption, deferred debt issuance costs were presented in deferred financing costs.

The principal repayments of the outstanding loans payable are as follows:

| | SCA | SJIF | FEDDEV | AAFC | EDC | BDC | Bridging | Total |
|----------------|---------|------------|-----------|-----------|------------|-----------|------------|------------|
| | \$ | \$ | \$ | \$ | \$ | \$ | \$ | \$ |
| October 2016 | | | | | | | | |
| - September | | | | | | | | |
| 2017 | 76,380 | — | 1,833,120 | 763,800 | 2,350,154 | — | 19,095,000 | 24,118,454 |
| October 2017 | | | | | | | | |
| - September | | | | | | | | |
| 2018 | 76,380 | — | 1,833,120 | 763,800 | 2,350,154 | 1,512,324 | — | 6,535,778 |
| October 2018 | | | | | | | | |
| - September | | | | | | | | |
| 2019 | 76,380 | 2,291,400 | 1,833,120 | 763,800 | 2,350,154 | 1,512,324 | — | 8,827,178 |
| October 2019 | | | | | | | | |
| - September | | | | | | | | |
| 2020 | 126,424 | 2,291,400 | 1,833,120 | 763,800 | 2,350,154 | 1,512,324 | — | 8,877,222 |
| October 2020 | | | | | | | | |
| and thereafter | — | 6,874,200 | — | 4,200,900 | 2,937,692 | 3,101,028 | — | 17,113,820 |
| Total | 355,564 | 11,457,000 | 7,332,480 | 7,256,100 | 12,338,308 | 7,638,000 | 19,095,000 | 65,472,452 |

8. Deferred Grant

As of September 30, 2016 and December 31, 2015, the Company has the following deferred grant:

a) Sustainable Development Technology Canada (“SDTC”)

Grant from Sustainable Development Technology Canada to BioAmber Sarnia in the amount of CAD\$14,500,000 with progressive disbursements according to the terms of the agreement and milestones. The grant is non-reimbursable by BioAmber Sarnia except upon the occurrence of certain events of default defined in the agreement.

Milestone I, II a) and II b) were fulfilled on or prior December 31, 2014. On May 26, 2015, BioAmber Sarnia completed the milestone III and received the advance on Milestone IV of CAD\$ 4,769,354, or \$3,642,063 when converted into U.S. dollars as of September 30, 2016. The Milestone III was reclassified from deferred grants reducing the cost of construction in-progress and the advance on Milestone IV, for the Commissioning, Start-up and Optimization of the manufacturing facility, was recorded as a deferred grant. During the three months ended September 30, 2016, the Milestone IV was completed and reclassified from deferred grant to grant income, and the remaining 10% holdback of CAD\$1,451,365 or \$1,108,262 when converted into U.S. dollars as of September 30, 2016, was received. The holdback was recognized within the Company's consolidated financial statements to reflect the nature of the expenditures of BioAmber Sarnia, resulting in \$703,793 being recognized against property and equipment and the remaining \$404,469 being recognized as Grant income. There remains no balance of deferred grants as at September 30, 2016.

9. Financial charges (income), net

| | Three months ended | | Nine months ended | |
|---|--------------------|-------------|-------------------|-----------|
| | September 30, | | September 30, | |
| | 2016 | 2015 | 2016 | 2015 |
| | \$ | \$ | \$ | \$ |
| End of term charge on long-term debt (Note 7 vi) | 774,703 | 171,875 | 1,032,937 | 515,625 |
| Interest on long-term debt | 713,135 | 619,924 | 1,736,438 | 1,814,022 |
| Revaluation of the warrants financial liability (Note 12) | 1,108,170 | (2,304,662) | (8,000,894) | 524,983 |
| Other interest charge (income), net | 594,138 | (39,179) | 571,265 | (53,452) |
| Total financial charges (income), net | 3,190,146 | (1,552,042) | (4,660,254) | 2,801,178 |

10. Commitments and contingencies

Leases

The Company leases its premises and other assets under various operating leases. As of September 30, 2016, leases payments for the next three months of 2016, and on a twelve months basis for the remaining years, are the following:

| | September 30, 2016 \$ |
|------------|-----------------------------|
| 2016 | 41,124 |
| 2017 | 173,236 |
| 2018 | 157,052 |
| 2019 | 151,737 |
| 2020 | 163,158 |
| Thereafter | 242,698 |

Royalties

The Company has entered into exclusive license agreements that provide for the payment of royalties in the form of up-front payments, minimum annual royalties, and milestone payments. The Company has the right to convert such exclusive agreements into non-exclusive agreements without the right to sublicense and without the obligation to pay minimum royalties. As of September 30, 2016, the royalty payments commitments for the next three months of 2016, and on a twelve months basis for the remaining years are the following:

| | September 30, 2016 \$ |
|------------|-----------------------------|
| 2016 | 504,000 |
| 2017 | 850,000 |
| 2018 | 800,000 |
| 2019 | 500,000 |
| 2020 | 500,000 |
| Thereafter | 5,000,000 |

The royalties the Company owes are in return for the use or development of proprietary tools, patents and know-how and the actual expenses incurred amounted to a total of \$429,623 and \$ 25,001 for the three months ended September 30, 2016 and 2015, respectively, and \$543,984 and \$206,433 for the nine months ended September 30, 2016 and 2015, and are included in research and development expenses in the consolidated statements of operations.

Purchase Obligations

BioAmber Sarnia has entered into a steam supply agreement with LANXESS Inc., under which, BioAmber Sarnia has agreed to pay a Monthly Take or Pay fee during the term of the contract, which will vary upon the natural gas price index. An amount of CAD\$750,000 or \$572,850 when converted into U.S. dollars as of September 30, 2016 is held in an escrow account as a guarantee for the supply agreement. BioAmber Sarnia has also entered into a service agreement with LANXESS Inc. under which minimum yearly payments are required. As of September 30, 2016,

purchase obligations commitments for the next three months of 2016, and on a twelve months basis for the remaining years are the following:

| | September 30, 2016 |
|------------|-----------------------|
| | \$ |
| 2016 | 445,482 |
| 2017 | 1,944,702 |
| 2018 | 1,944,702 |
| 2019 | 1,944,702 |
| 2020 | 1,944,702 |
| Thereafter | 4,773,718 |

Litigation

As of September 30, 2016 there were no outstanding claims or litigation.

11. Redeemable non-controlling interest

On January 24, 2014, the Company signed an amended and restated joint venture agreement (the “Amended JV Agreement”) with Mitsui related to the Sarnia joint venture. Under the Amended JV Agreement, Mitsui invested an additional \$8.1 million (CAD\$9 million) on January 29, 2014 in BioAmber Sarnia to maintain its 30% ownership. The Amended JV Agreement also revised each party’s rights and obligations under the buy/sell provisions of the Agreement, including a put option exercisable at Mitsui’s sole discretion that requires the Company to purchase Mitsui’s equity for a purchase price of 50% of Mitsui’s equity in the joint venture. This option remains in effect until December 31, 2018. As a result of the Amended JV Agreement, the Company’s previously recorded non-controlling interest in BioAmber Sarnia joint venture of \$2.1 million as at December 31, 2013 in shareholders’ equity on the consolidated balance sheet, was re-classified to redeemable non-controlling interest in temporary equity on the Company’s consolidated balance sheets, at the greater of the carrying value or the redemption value, in accordance with FASB ASC 480-10-S99.

On February 6, 2015, Mitsui invested an additional \$2.0 million (CAD\$2.6 million) of equity in BioAmber Sarnia. Mitsui invested additional amounts of \$1.1 million (CAD \$1.3 million) on April 30, 2015 and May 14, 2015.

On February 15, 2016, the Company signed a second amended and restated joint venture agreement (the “Second Amended JV Agreement”) with Mitsui pursuant to which Mitsui provided BioAmber Sarnia an additional capital contribution for a total amount of \$17.7 million (CAD\$25 million), which increased Mitsui’s share ownership to 40.8%. As a result of Mitsui’s additional capital contribution, BioAmber Sarnia agreed to increase the size of its Board of directors from five to six members, and BioAmber and Mitsui have the right to designate three members each. All Board decisions have to be approved by the affirmative vote of a simple majority of the BioAmber Sarnia Board members, except that with respect to the following matters, which BioAmber, as the controlling shareholder of BioAmber Sarnia, have the right to make a final decision: (i) the approval and any amendment to any annual budget, including capital expenditures required to maintain the plant in operation, (ii) the hiring and firing of BioAmber Sarnia personnel and their compensation, and (iii) the execution of any raw material or utility supply agreements that are needed in the ordinary course of business. BioAmber also agreed that in the event that Mitsui’s equity stake in BioAmber Sarnia increases to above 45% in the future, BioAmber would no longer have the deciding votes described in the preceding sentence.

As of September 30, 2016, the estimated redemption value of the redeemable non-controlling interest was \$27.1 million.

The following table reflects the activity of the redeemable non-controlling interest:

| | |
|--|--------------|
| Balance, December 31, 2015 | 24,583,636 |
| Mitsui’s additional capital contribution | 17,725,999 |
| Net loss attributable to redeemable NCI | (4,028,656) |
| Accumulated other comprehensive loss attributable to NCI | 2,085,368 |
| Balance at September 30, 2016 | 40,366,347 |

12. Share capital

Secondary Public Offering

On January 21, 2016, the Company completed the closing of another follow-on public offering and issued 2,600,000 shares of common stock, at an offering price to the public of \$5.00 per share. The gross aggregate proceeds from this secondary public offering were approximately \$13.0 million, with net proceeds of approximately \$11.9 million, after deducting underwriting discounts and commissions and expenses payable by the Company. This public offering also triggered an adjustment to the exercise price of the outstanding IPO Warrants, April 2011 Warrants and the June 2009 Warrants, refer to section Warrants financial liability below for details. On May 6, 2015, the Company completed a public offering and issued 3,900,000 shares of common stock, at an offering price of \$9.00 per share. The total net proceeds from the public offering, after deducting underwriting discounts and offering expenses was approximately \$32.8 million. These public offerings triggered adjustments to the exercise price of the outstanding IPO Warrants, April 2011 Warrants and the June 2009 Warrants (refer to section Warrants financial liability below for details).

Warrants financial liability

June 2009 & April 2011 Warrants

On June 22, 2009, the Company issued 208,950 warrants at an exercise price of \$5.74 per share in connection with a financing transaction, with an estimated fair value of \$1,045,307. On April 11, 2011, the Company issued 94,745 warrants at an exercise price of \$10.55 per share with a fair value of \$810,448 in connection with a second financing transaction. Those warrants contain anti-dilution protection in the event securities are sold at a lower price than the warrant's original exercise price. The anti-dilution protection

contains a price adjustment and an adjustment to the number of warrants. The fair value of the warrants are classified as a financial liability as a result of their characteristics, in accordance with FASB ASC 815. A non-cash reclassification from equity to liability was recorded in the third quarter 2015.

Following the May 2015 public offering, the exercise price per share of the April 2011 Warrants were adjusted to an exercise price of \$10.11 per share and an additional 4,124 warrants were issued. The January 2016 public offering also triggered an adjustment to the exercise price of the April 2011 Warrants and the June 2009 Warrants from \$10.11 per share and \$5.74 per share, respectively, to \$9.65 per share and \$5.67 per share, respectively. An additional 4,713 warrants at an exercise price of \$9.65 and an additional 2,580 warrants at an exercise price of \$5.67 per share were issued following the adjustments triggered by this issuance.

As of September 30, 2016, the fair value of those warrants was determined to be \$1.44 and \$1.60 per warrant, for the June 2009 Warrants and the April 2011 Warrants, respectively, using the Monte Carlo method, a level 3 fair value measure, for a total fair value of \$471,012 classified as warrants financial liability on the consolidated balance sheets. It resulted in a financial (income) charge of \$148,170 and \$(768,662) for the three months ended September 30, 2016 and 2015, respectively, and of \$(480,894) and \$(675,017) for the nine months ended September 30, 2016 and 2015, respectively.

As of December 31, 2015, the fair value of those warrants was determined to be \$3.03 and \$3.21 per warrant, for the June 2009 Warrants and the April 2011 Warrants, respectively, using the Monte Carlo method, a level 3 fair value measure, for a total fair value of \$951,906 classified as warrants financial liability on the consolidated balance sheets.

IPO Warrants

The warrants issued upon the completion of the IPO (“IPO Warrants”), are exercisable during the period beginning on August 8, 2013 and ending on May 9, 2017. Per the IPO warrants agreement, the Company has the possibility to extend the termination date without the consent of the holders. The initial fair value of the warrants was determined to be \$2.02 per warrant using the Black-Scholes option pricing model. The warrants contain full ratchet, anti-dilution protection upon the issuance of any common stock, securities convertible into common stock, or certain other issuances at a price below the then-existing exercise price of the warrant, with certain exceptions. The exercise price of \$11.00 per whole share of common stock is subject to appropriate adjustment in the event of certain stock dividends and distributions, stock splits, stock issuances or other similar events affecting the company’s common stock. At issuance, the fair value of the warrants was classified as a financial liability as a result of their characteristics, in accordance with FASB ASC 815. The exercise price of the outstanding IPO Warrants were adjusted from \$11.00 to \$9.00 per whole share of common stock, and subsequently from \$9.00 to \$5.00 per whole share of common stock, pursuant the terms of such warrants, following the May 2015 public offering and the January 2016 public offering, respectively. The Company has the possibility to reduce the exercise price without the consent of the IPO Warrants holders.

On September 30, 2016, the closing value of the warrant on the New York Stock Exchange, a level 1 fair value measure, was \$0.47 per warrant, as compared to \$1.41 per warrant on December 31, 2015. As a result, the liability was revalued at the balance sheet date resulting in a financial charge (income) of \$960,000 and \$(1,536,000) for the three months ended September 30, 2016 and 2015, respectively, and of \$(7,520,000) and \$1,200,000 for the nine

months ended September 30, 2016 and 2015, respectively.

Stock option plan

Stock-based compensation expense was allocated as follows:

| | Three months ended ended September 30, | | Nine months ended ended September 30, | |
|----------------------------|---|---------|---|-----------|
| | 2016 | 2015 | 2016 | 2015 |
| | \$ | \$ | \$ | \$ |
| General and administrative | 470,866 | 316,141 | 1,525,011 | 2,000,036 |
| Research and development | 389,830 | 392,334 | 1,021,649 | 1,462,182 |
| Sales and marketing | 47,040 | 133,388 | 139,405 | 392,457 |
| Total compensation expense | 907,736 | 841,863 | 2,686,065 | 3,854,675 |

The following table summarizes activity under the Plan:

| | Three months ended September 30, | | | | Nine months ended September 30, | | | |
|---|----------------------------------|----------|------------|----------|---------------------------------|----------|------------|---------|
| | 2016 | | 2015 | | 2016 | | 2015 | |
| | Weighted | Weighted | Weighted | Weighted | Weighted | Weighted | Weighted | |
| Numbers | Average | Numbers | Average | Numbers | Average | Numbers | Average | |
| of | Exercise | of | Exercise | of | Exercise | of | Exercise | |
| options | Price | options | Price | options | Price | options | Price | |
| Outstanding, beginning of period | 5,716,580 | \$ 6.88 | 5,214,554 | \$ 7.72 | 5,044,107 | \$ 7.51 | 4,923,596 | \$ 7.67 |
| Granted | 200,000 | 3.90 | 59,000 | 7.22 | 1,391,000 | 4.59 | 417,000 | 8.49 |
| Exercised | — | — | — | — | — | — | (14,000) | 5.74 |
| Forfeited or cancelled | (112,072) | 8.00 | (269,188) | 8.90 | (630,599) | 7.96 | (322,230) | 9.02 |
| Outstanding, end of period | 5,804,508 | \$ 6.76 | 5,004,366 | \$ 7.65 | 5,804,508 | \$ 6.76 | 5,004,366 | \$ 7.65 |
| Exercisable, end of period | 3,507,730 | \$ 7.20 | 2,855,442 | \$ 6.99 | 3,507,730 | \$ 7.20 | 2,855,442 | \$ 6.99 |
| Per share weighted average grant-date fair value of options granted | | \$ 2.62 | | \$ 5.23 | | \$ 2.69 | | \$ 6.30 |

As of September 30, 2016, the weighted-average remaining contractual life of options outstanding and options exercisable were 6.95 years and 5.76 years, respectively.

The fair value of options granted was determined using the Black-Scholes option pricing model and the following weighted-average assumptions:

| | Three months ended | | Nine months ended | |
|--------------------------|--------------------|--------|--------------------|--------|
| | September 30, 2016 | 2015 | September 30, 2016 | 2015 |
| Risk-free interest rate | 1.34 % | 1.78 % | 1.58 % | 1.78 % |
| Expected life (in years) | 6.25 | 6.25 | 6.25 | 6.25 |
| Volatility | 76.00% | 84.31% | 79.17% | 84.41% |
| Expected dividend yield | 0.00 % | 0.00 % | 0.00 % | 0.00 % |

Warrants

During the three and nine months ended September 30, 2016, 55,230 warrants were exercised at an exercise price of \$1.07, and 4,655 warrants expired. During the nine months ended September 30, 2015, 2,625 warrants were exercised at an exercise price of \$1.07 per share and 105,000 warrants were exercised at an exercise price of \$1.43 per share.

As at September 30, 2016, the Company had the following warrants and warrants financial liability outstanding to acquire common shares:

| Number | Exercise price | Expiration date |
|-----------|----------------|---------------------------|
| 271,961 | \$ 1.07 | May 2017 - September 2018 |
| 159,390 | \$ 1.43 | February 2019 |
| 211,530 | \$ 5.67 | June 2019 |
| 103,582 | \$ 9.65 | April 2021 |
| 4,000,000 | \$ 5.00 | May 2017 |
| 4,746,463 | | |

13. Income taxes

Based on the Company's evaluation at September 30, 2016, management has concluded that there has been no change to the recorded uncertain tax positions requiring adjustments to deferred tax assets and related valuation allowance. Open tax years include the tax years December 31, 2011 through December 31, 2015.

For the three month periods ended September 30, 2016 and 2015, the Company's effective income tax rates were nil% and (0.34)% respectively, compared to an applicable U.S. combined federal and state income tax rate of 35%. The difference between the effective tax rate and U.S. statutory tax rate as of September 30, 2016 is primarily due the existence of valuation allowances for deferred tax assets including net operating losses and stock options. For the three months ended September 30, 2016, the Company recorded valuation allowances on deferred tax assets relating to current year losses and temporary differences.

The Company is subject to possible income tax examinations for its U.S. federal and state income tax returns filed for the tax years 2011 to present. International tax statutes may vary widely regarding the tax years subject to examination, but generally range from 2011 to the present.

14. Financial instruments

Currency risk

The Company is exposed to foreign currency risk as result of foreign-denominated transactions and balances. The Company does not hold any financial instruments that mitigate this risk.

Credit risk

The Company's exposure to credit risk as of September 30, 2016, is equal to the carrying amount of its financial assets.

Interest Rate Risk

We had cash balances totaling \$15.9 million at September 30, 2016. These amounts were deposited in current and interest-bearing accounts and were held for working capital purposes. Our primary objective is to preserve our capital for the purpose of funding our operations. We do not enter into investments for trading or speculative purposes. The Company's long-term loan with EDC bears interest at floating interest rate per annum based on the Canadian prime rate plus an interest spread of 5%. If the Canadian prime rate were to increase, the interest rates for the remaining term of the loan would increase.

15. Fair value of financial assets and liabilities

For cash, accounts receivable and accounts payable and accrued liabilities, the carrying amount approximates fair value because of the short-term maturity of those instruments.

The carrying amount of long-term debt approximates fair value as at September 30, 2016 and December 31, 2015. The fair value of long-term debt received from government organizations was determined using Level 3 information as the Company produces an estimate of fair value based on internally developed valuation techniques which are based on a discounted cash flow methodology and incorporates all relevant observable market inputs. The interest free loans were discounted using an interest rate between 12% and 15%, a level 3 fair value measurement, representing the interest rate a loan with similar terms and conditions would carry.

The fair value of the warrants which were issued upon the completion of the IPO on May 10, 2013 was calculated using the Black-Scholes option pricing model using various assumptions described in Note 12, which was a level 3 fair value measurement. As these warrants started trading freely on the New York Stock Exchange on June 10, 2013, the closing value of these warrants, which is a level 1 measurement was used to calculate the fair value from June 10, 2013 onwards.

The fair value of the warrants issued in connection with the June 2009 and April 2011 financing transaction was calculated using the Monte Carlo model, which is a level 3 measurement.

16. Related party transactions

Transactions with related parties not disclosed elsewhere were as follows:

| | Three Months Ended September 30, 2016 | | Nine Months Ended September 30, 2015 | |
|------------------------------------|--|----|---|--------|
| | \$ | \$ | \$ | \$ |
| Product sales to a shareholder | 131,039 | — | 230,686 | 11,250 |
| Services received by a shareholder | 131,721 | — | 131,721 | — |

The related party transactions noted above were undertaken in the normal course of operations and were measured at the exchange amount, which is the amount of consideration established and agreed to by the parties.

17. Business segments

The Company allocates, for the purpose of geographic segment reporting, its revenue based on the location of the seller. For the purpose of geographic segment reporting, the non-current assets of the Company are allocated as follows:

| | Europe September 30, 2016 \$ | December 31, 2015 \$ | North America September 30, 2016 \$ | December 31, 2015 \$ | Consolidated September 30, 2016 \$ | December 31, 2015 \$ |
|--|--|----------------------------|---|----------------------------|--|----------------------------|
| Property and equipment, net | — | — | 125,821,203 | 122,542,688 | 125,821,203 | 122,542,688 |
| Investment in equity method investments | — | — | 447,035 | 447,035 | 447,035 | 447,035 |
| Intangible assets, net (Note 5) | 2,910,448 | 3,017,550 | 3,273,912 | 3,334,541 | 6,184,360 | 6,352,091 |
| Goodwill | 625,364 | 625,364 | — | — | 625,364 | 625,364 |

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

The information included in this management's discussion and analysis of financial condition and results of operations should be read in conjunction with our condensed consolidated financial statements and the notes included in this Quarterly Report on Form 10-Q.

Forward-Looking Statements

This Quarterly Report on Form 10-Q contains "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995. These forward-looking statements reflect the views of our management regarding current expectations and projections about future events and are based on currently available information. Actual results could differ materially from those contained in these forward-looking statements for a variety of reasons, including, but not limited to, those listed in the section entitled "Risk Factors" in this report and in our Annual Report Form 10-K for the fiscal year ended December 31, 2015 as well as those discussed elsewhere in this report. Other unknown or unpredictable factors also could have a material adverse effect on our business, financial condition and results of operations. Accordingly, readers should not place undue reliance on these forward-looking statements. The use of words such as "anticipates," "estimates," "expects," "intends," "plans" and "believes," among others, generally identify forward-looking statements; however, these words are not the exclusive means of identifying such statements. In addition, any statements that refer to expectations, projections or other characterizations of future events or circumstances are forward-looking statements. These forward-looking statements are inherently subject to uncertainties, risks and changes in circumstances that are difficult to predict. We are not under any obligation to, and do not intend to, publicly update or review any of these forward-looking statements, whether as a result of new information, future events or otherwise, even if experience or future events make it clear that any expected results expressed or implied by those forward-looking statements will not be realized. Please carefully review and consider the various disclosures made in this report and in our other reports filed with the Securities and Exchange Commission that attempt to advise interested parties of the risks and factors that may affect our business, prospects and results of operations.

Overview

We are an industrial biotechnology company producing sustainable chemicals. Our proprietary technology platform combines industrial biotechnology and chemical catalysis to convert renewable feedstocks into sustainable chemicals that are cost-competitive replacements for petroleum-derived chemicals, which are used in a wide variety of everyday products including plastics, resins, paints, food additives and personal care products. We currently sell our first product, bio-succinic acid, to customers in a variety of chemical markets. We produce bio-succinic acid at our facility in Sarnia, Ontario, pursuant to a joint venture agreement with Mitsui.

Succinic acid can be used to manufacture a wide variety of products used every day, including plastics, food additives and personal care products, and can also be used as a building block for a number of derivative chemicals. Today, petroleum-derived succinic acid is not used in many potential applications because of its relatively high production costs and selling price. We believe that our low-cost production capability and our development of next-generation bio-succinic derived products including 1,4 BDO, which is used to produce polyesters, plastics, spandex and other products, will provide us with access to a more than \$10 billion market opportunity.

Prior to the completion of our Sarnia facility, we manufactured our bio-succinic acid at a large-scale demonstration facility in Pomacle, France for five years, under a toll manufacturing arrangement pursuant to which we compensated a third party, including for labor costs and the cost of producing our product. We shipped commercial quantities to customers, such as shipments of one ton super sacks and container loads. We and our customers used the products

produced at the facility as part of our efforts to validate and optimize our process and to continue to refine and improve our bio-succinic acid to meet our customers' specifications. In preparation for transitioning our production from our Pomacle facility to our Sarnia facility, we accumulated a reserve inventory of our product, which was produced at a higher cost per metric ton of succinic acid than that expected cost of production at our Sarnia facility.

We are working to rapidly expand our accessible markets and product portfolio. We have entered into strategic relationships with several leading companies, such as our multi-year agreements with PTTMCC Biochem for bio-succinic acid and Vinmar for bio-succinic acid, 1,4 BDO and THF. We have also entered into agreements with other companies for the supply of bio-succinic acid.

We have also entered into technology partnerships to lower our production costs, expand our product portfolio and enhance our biochemical production platform. For example, we entered into a technology partnership with Cargill, Inc., or Cargill, through which we exclusively license a proprietary yeast organism for use in our fermentation process to produce our products. We refer to the yeast organism that we have licensed from Cargill as "our yeast." We have also established other technology licenses and collaborations, including with Johnson Matthey Davy Technologies, or Davy.

Our business strategy is to leverage the value of our technology by building and operating production facilities around the world. However, depending on our access to capital and third-party demand for our technology, we may also enter into technology licenses on an opportunistic basis.

We have entered into a joint venture agreement with Mitsui & Co. Ltd. for our facility in Sarnia, Ontario, which has a nameplate capacity of 30,000 metric tons of bio-succinic acid per year. We started commercial scale production at our Sarnia facility in October 2015 and ramp-up to full production capacity is expected in 2018. We terminated production at the large-scale demonstration facility in Pomacle, France at the end of 2014. Our joint venture with Mitsui also contemplates the potential construction and operation of an additional facility, which we expect to occur over the next three to five years.

On May 9, 2013, we raised net proceeds of \$71.7 million from the initial public offering of our equity securities. In July 2014, we completed a secondary public offering and issued 3,220,000 shares of common stock, at a public offering price of \$12.00 per share, for a total of approximately \$36.0 million in net proceeds, after deducting underwriting discounts and commissions and expenses payable by us. On May 6, 2015, we completed the closing of a secondary public offering and issued 3,900,000 shares of common stock, at an offering price to the public of \$9.00 per share, for a total of approximately \$32.8 million in net proceeds, after deducting underwriting discounts and commissions and expenses payable by us. On January 21, 2016, we completed the closing of a secondary public offering and issued 2,600,000 shares of common stock, at an offering price to the public of \$5.00 per share, for a total of approximately \$11.9 million in net proceeds, after deducting underwriting discounts and commissions and expenses payable by us.

As of September 30, 2016, we had raised an aggregate of \$292.8 million from public offerings of our equity securities, private placements of our equity securities, and the sale of shares issued by a subsidiary and convertible notes.

Sarnia Facility

Our first commercial-scale facility is on land we own and is located within a bio-industrial park in Sarnia, Ontario. The site is co-located in a large petrochemical hub with existing infrastructure that facilitates access to utilities and certain raw materials and finished product shipment, including steam, electricity, cooling water and water treatment. The facility has a nameplate capacity of 30,000 metric tons of bio-succinic acid per year and we started commercial scale production in October 2015.

The plant has received ISO 9001 (for its quality management system), ISO 14001 (for its environmental management system), OHSAS 18001 (for its health and safety management system) and FSSC 22000 certification (for its food safety management system). These certifications were granted by accredited certification bodies following audits of the Sarnia plant in the fourth quarter of 2015.

In November 2011, we entered into a joint venture agreement with Mitsui to finance and build and operate our facility in Sarnia, Ontario through BioAmber Sarnia, a joint venture 70% owned by us and 30% owned by Mitsui. On February 15, 2016, we, together with our subsidiaries BioAmber International s.à r.l. and BioAmber Sarnia, entered into Second Amended JV Agreement with Mitsui pursuant to which Mitsui provided BioAmber Sarnia an additional capital contribution for an aggregate amount of CAD\$25 million, which increased Mitsui's share ownership to approximately 40%. We have retained effective operational control of the joint venture.

The total construction cost of our facility in Sarnia was approximately \$141.5 million, funded through capital contributions from us and from Mitsui, and interest free and low-interest loans and governmental grants.

Additional Planned Manufacturing Facilities

We plan to build a second integrated manufacturing facility that will produce approximately 200,000 metric tons per year of bio-succinic acid and then transform a majority of the bio-succinic acid into 70,000 metric tons per year of bio-based 1,4 BDO and 24,000 metric tons per year of THF, along with 60,000 metric tons per year of crystalline succinic acid. We have signed two 15 year offtake agreements with Vinmar for 100% of the BDO and THF output (100,000 metric tons per year) and 67% of the succinic acid output of this second planned facility. Vinmar plans to take a 10% equity stake in the plant. We are actively seeking other minority equity partners for this facility, as well as government support in the form of low interest loans and loan guarantees. Based on current estimates and assumptions, we expect this commercial scale manufacturing facility to have construction costs of approximately \$500 million, and it would be commissioned in late 2019 assuming we achieve a financial close in late 2017.

Performance Drivers

We expect that the fundamental drivers of our results of operations going forward will be the following:

Commercialization of our products. We commenced recognizing revenue from sales of our existing bio-succinic acid product in 2011. Our ability to grow revenue from this product will be dependent on expanding the addressable market for succinic acid using our low-cost, bio-based alternative. We also expect to grow our revenue base by developing new value-added applications and derivative products. For example, we signed a supply agreement with PTTMCC Biochem in April 2014 for biodegradable plastics, and we have signed additional supply agreements in other new applications such as synthetic leather and other polyurethane applications, including coatings (polyurethane dispersions) made from bio-based succinic acid and recycled PET. We also plan to develop and commercialize derivatives of succinic acid, such as BDO and THF, and to target large and established chemical markets such as adipic acid, where succinic acid can partially substitute the incumbent chemical.

In April 2014, we entered into a three year supply agreement with PTTMCC Biochem, a joint venture between PTT Public Company Limited and Mitsubishi Chemical Corporation that was established to produce and sell polybutylene succinate, or PBS, a biodegradable plastic made from succinic acid and BDO. PTTMCC has constructed a PBS plant in Thailand and is currently ramping-up the plant production, which is expected to consume approximately 14,000 metric tons of succinic acid per year at full capacity. This supply agreement provides that we will exclusively supply a minimum of 80% of PTTMCC Biochem's total bio-succinic needs until the end of 2017, with approximately 50% of the total purchases under offtake terms. We also entered into a second offtake agreement with Vinmar in July 2014, to supply Vinmar with 10,000 metric tons of bio-succinic acid per year for 15 years from the Sarnia plant. Our arrangements with PTTMCC and Vinmar represent two of the potential customers and applications that we are targeting for the bio-succinic acid produced at our Sarnia facility. These supply agreements reflect our ongoing efforts to expand the succinic acid addressable market into new applications.

We have also entered into several agreements and memorandum of understanding, or MOUs, that contemplate, but do not obligate, us to supply approximately 16,000 metric tons of bio-succinic acid until the end of 2017 and, as we continue operation of our facility in Sarnia, Ontario, we are actively seeking to enter into definitive supply agreements and form new relationships with potential customers.

Our revenue for future periods will be impacted by our ability to develop new applications and the speed with which we are able to bring our succinic acid derivatives to market. To accelerate this process, we have developed our sales and marketing capability and entered into distribution and joint development agreements with strategic partners. On February 15, 2016, we, together with our subsidiaries BioAmber International s.à r.l. and BioAmber Sarnia, entered into a Second Amended JV Agreement with Mitsui pursuant to which Mitsui provided BioAmber Sarnia with additional capital contributions for an aggregate amount of CAD\$25 million, which increased Mitsui's share ownership to approximately 40%. We have retained effective operational control of the joint venture.

We are also engaging in a collaborative process with our customers to test and optimize new applications and derivative products such as BDO and THF in order to ensure that they meet specifications in each of their potential applications. We continue to seek to establish supply agreements and distribution agreements with strategic customers as we expand our markets and product offerings. For example, in October 2014, we entered into a five-year exclusive supply agreement with Xuchuan Chemicals, a global leader in polyester polyols, to supply bio-based succinic acid from our Sarnia facility to be used in manufacturing cast polyurethane elastomers. Xuchuan is initially launching polyurethane (PU) systems for cast polyurethane elastomers (CPU) made with bio-succinic acid. CPU is used in applications including automotive instruments, caster wheels, industrial and mining equipment, power tools, industrial tires, coating rolls, drive belts, mold makers and hoses. By replacing adipic acid with succinic acid, Xuchuan has produced CPUs that offer better properties: they are more abrasion/scratch resistant and more resistant to solvents. Other applications for our bio-based succinic acid include polyurethane elastomers and dispersions for shoe soles and synthetic leather.

Production capacity. Our ability to lower our production costs and drive customer adoption of our product is dependent on our manufacturing strategy. We expect to produce bio-succinic acid that is cost-competitive with succinic acid produced from oil priced as low as \$30.00 per barrel. We expect to further reduce costs by implementing on-going process improvements. We intend to capitalize on our first-to-market advantage by rapidly expanding our production capacity and building additional facilities. Our results will be impacted by the speed with which we execute on this strategy, the capital costs and operating expenses of each of these facilities, and the price of oil and the impact it has on the price of petrochemicals our succinic acid substitutes.

Feedstock and other manufacturing input prices. We use sugars that can be derived from wheat, corn, sugar cane and other feedstocks. We intend to locate our facilities near readily available sources of sugars and other inputs, such as steam, electricity and hydrogen, in order to ensure reliable supply of cost-competitive feedstocks and utilities. While our process requires less sugar than

most other renewable products and is therefore less vulnerable to sugar price increases relative to other bio-based processes, our margins will be affected by significant fluctuations in these required inputs.

Petroleum prices. We expect sales of our bio-based products to be impacted by the price of petroleum. In the event that petroleum prices increase, we may see increased demand for our products as chemical manufacturers seek lower-cost alternatives to petroleum-derived chemicals. Conversely, a long-term reduction in petroleum prices below \$30.00 per barrel may result in our products being less competitive with petroleum-derived alternatives. In addition, oil prices may also impact the cost of certain feedstocks we use in our process, which may affect our operating profits.

Recent Developments

SDTC Grant

During the three months ended September 30, 2016, we received the SDTC grant holdback payment of CAD\$1,451,365 or \$1,108,262 when converted into U.S. dollars as of September 30, 2016, following the achievement of the last SDTC milestone.

Bridging Loan

On September 9, 2016, we entered into a CAD\$ 25 million demand non-revolving credit facility with Bridging Finance Inc. The proceeds were used to repay in full the outstanding principal amount of our prior loan with Tennenbaum Capital Partners, LLC and the remainder will be used to fund general corporate expenses. Refer to Note 7 of the financial statements included elsewhere in this Quarterly Report on Form 10-Q for more details.

BDC Loan

On August 20, 2016, we received the proceeds from our CAD\$10 million loan between BDC and BioAmber Sarnia according to the binding Letter of Offer dated April 20, 2016. The proceeds will be used to fund the working capital of BioAmber Sarnia's facility, repayable starting October 15, 2017 continuing monthly until September 15, 2022. Refer to Note 7 of the financial statements included elsewhere in this Quarterly Report on Form 10-Q for more details.

Mitsui additional capital contribution

On February 15, 2016, we, together with our subsidiaries BioAmber International s.à r.l. and BioAmber Sarnia, entered into a Second Amended JV Agreement with Mitsui pursuant to which Mitsui agreed to provide BioAmber Sarnia with additional capital contributions for an aggregate amount of CAD\$25 million, which increased Mitsui's share ownership to approximately 40%. As a result of Mitsui's additional capital contribution, BioAmber Sarnia agreed to increase the size of its board of directors from five to six members, and we and Mitsui have the right to designate three members each. All BioAmber Sarnia board decisions have to be approved by the affirmative vote of a simple majority of the BioAmber Sarnia board members, except that with respect to the following matters, we, as the controlling shareholder of BioAmber Sarnia, have a deciding vote and have the right to make a final decision: (i) the approval and any amendment to any annual budget, including capital expenditures required to maintain the plant in operation, (ii) the hiring and termination of BioAmber Sarnia personnel and their compensation, and (iii) the execution of any raw material or utility supply agreements that are needed in the ordinary course of business. We also agreed that in the event that Mitsui's equity stake in BioAmber Sarnia increases to above 45% in the future, we would no longer have the deciding votes described in the preceding sentence.

Public Offering of Common Stock

On January 21, 2016, we completed the closing of a follow-on public offering and issued 2,600,000 shares of common stock, at an offering price to the public of \$5.00 per share. The gross aggregate proceeds from this secondary public offering were approximately \$13.0 million, with net proceeds of approximately \$11.9 million, after deducting underwriting discounts and commissions and expenses payable by us. This public offering also triggered a further adjustment to the exercise price of the outstanding IPO Warrants, from \$9.00 per whole share of common stock to \$5.00 per whole share of common stock. The exercise price of the 2011 Warrants and the warrants that we issued in June 2009 were also reduced following the completion of this public offering, from \$10.11 per share and \$5.74 per share, respectively, to \$9.65 per share and \$5.67 per share, respectively. An additional 4,713 warrants at an exercise price of \$9.65 and an additional 2,580 warrants at an exercise price of \$5.67 per share were issued following adjustments in the number of shares underlying the warrants that were triggered by this issuance.

Financial Operations Overview

Revenue

Revenue comprises the fair value of the consideration received or receivable for the sale of products and services in the ordinary course of our activities and is presented net of discounts.

We expect revenue to grow as our sales and marketing efforts continue and our facility in Sarnia, Ontario increases its volumes of commercial production. Most of our current sales are products from our Sarnia facility, with the remainder consisting of remaining inventory produced by our Pomacle facility before we terminated production there on December 31, 2014.

Cost of Goods Sold

For products manufactured in Pomacle, France, cost of goods sold consists of the cost to produce finished goods under our tolling arrangement that ended on December 31, 2014. For finished goods produced at Sarnia facility, cost of goods sold consists of costs directly associated with the finish goods production, such as direct materials, direct labor, utilities and certain plant overhead.

The costs to produce product in Pomacle, France, was higher than we expect to incur in the future at Sarnia due to the higher raw material costs such as sugar and utilities, the amount of fixed costs relative to the total production capacity available to us, and the inefficiencies created by the need to stop production from time to time to allocate the capacity

to other parties. Going forward, from the succinic acid produced in Sarnia, we expect our cost of goods sold as a percent of revenues to decrease as we ramp-up to a full scale commercial production and will benefit from efficiencies in utilizing our yeast in the fermentation process at the Sarnia facility.

Operating Expenses

Operating expenses consist of general and administrative expenses, research and development expenses, net, sales and marketing expenses, depreciation of property and equipment, amortization of intangible assets, write-offs of intangible assets and foreign exchange gains and losses.

General and Administrative Expenses

General and administrative expenses consist of personnel costs (salaries, and other personnel-related expenses, including stock-based compensation), recruitment and relocation expenses, accounting and legal fees, business travel expenses, rent and utilities for

the administrative offices, web site design, press releases, membership fees, office supplies, corporate insurance programs, administration expenses related to our Sarnia facility, and other miscellaneous expenses.

We expect these expenses to increase in the future as we hire additional management, finance and administration employees to respond to a growing revenue base.

Research and Development Expenses

Research and development expenses consist primarily of fees paid for contract research and internal research costs in connection with the development, expansion and enhancement of our proprietary technology platform. These costs also include personnel costs (salaries and other personnel-related expenses, including stock-based compensation), expenses incurred in our facility located in Plymouth, Minnesota, laboratory supplies, research consultant costs, patent and trademark maintenance costs, royalties, professional and consulting fees and business travel expenses. It also includes development costs for bringing our Sarnia facility in line for production.

We expect research and development expenses, including our patent maintenance expenses, to decrease since we have deployed and implemented our bio-succinic acid in a commercial scale manufacturing facility. We expect to continue conducting research and development in-house, and recently moved from our 27,000 square foot facility in Plymouth, Minnesota to our new 2,000 square foot facility in St. Paul, Minnesota, to meet our actual research and development needs. Certain research and development activities that can be performed more effectively by outside consultants will be performed with their respective expertise as required.

Sales and Marketing Expenses

Sales and marketing expenses consist primarily of personnel costs (salaries, and other personnel-related expenses, including stock-based compensation), marketing services, product development costs, advertising, selling and distributor costs and feasibility study fees.

Following our agreement signed with Mitsui in February 2016, we expect to decrease our sales and marketing efforts while leveraging Mitsui's global sales platforms along with its dedicated commercial team.

Depreciation of Property and Equipment and Amortization of Intangible Assets

Depreciation of property and equipment consists primarily of the depreciation of our Sarnia production facility, machinery and equipment, office furniture, research and development equipment and computer equipment, which is depreciated using the straight-line method over their estimated useful lives. Amortization of intangible assets consists primarily of our definite-lived license and amortization of computer software and licenses, which are amortized using the straight-line method over their estimated useful lives. Depreciation of property and equipment increased significantly since our manufacturing facilities operations started. As of September 30, 2016, \$20.3 million of net grants were applied as a reduction of machinery and equipment and building. This reduces depreciation expense over the useful life of the asset.

Foreign Exchange (Gain) Loss

We expect to conduct operations throughout the world. Our financial position and results of operations will be affected by economic conditions in countries where we plan to operate and by the changing foreign currency exchange rates. We are exposed to changes in exchange rates in Europe and Canada. The Euro and the Canadian Dollar are our most significant foreign currency exchange risks. A strengthening of the Euro and the Canadian Dollar against the U.S. Dollar may increase our revenues and expenses since they are expressed in U.S. Dollars. As we increase our production from our manufacturing facility in Sarnia, Ontario, we expect our foreign currency risk to continue as a significant portion of our uses of cash will be denominated in Canadian Dollars while our sources of cash will be

primarily in U.S. Dollars and in Euros. We will monitor foreign currency exposures and will look to mitigate exposures through normal business operations such as manufacturing and selling in the same currencies where practical or buying required currencies at spot where advantageous. We may use forward contracts or currency swaps to mitigate any remaining exposures.

Amortization of Debt Discounts

Amortization of debt discounts consists primarily of costs from past financings that are recognized over the life of the funding instrument and will continue to increase in line with the expenses incurred to obtain future financing. Those costs are deferred and amortized on a straight-line basis, which is approximately the effective interest method, over the term of the related debt. Amortization

of debt discounts also includes the accretion of the debt discount on the interest free or low-interest loans received from the government agencies.

Financial Charges (Income), Net

Financial charges (income), net, include interest on short-term and long-term debt, end of term accretion charge from the TCP loan and the recognition of gains or losses resulting from the mark-to-market adjustment required at the balance sheet date on our IPO Warrants, 2009 Warrants and 2011 Warrants.

We account for common stock warrants in accordance with applicable accounting guidance provided in ASC 815, Derivatives and Hedging—Contracts in Entity’s Own Equity, as either derivative liabilities or as equity instruments depending on the specific terms of the warrant agreement. Derivative warrant liabilities were valued using the Black-Scholes pricing model at the date of initial issuance and using the closing value as quoted on the New York Stock Exchange at each subsequent balance sheet date. The 2009 Warrants and 2011 Warrants are valued using the Monte Carlo method.

Income Taxes

We are subject to income taxes in Luxembourg, the United States and Canada. We have incurred significant losses and have not generated taxable income in these jurisdictions, with the exception of Canada. In the future, we expect to become subject to taxation based on the statutory rates in effect in the countries in which we operate and our effective tax rate could fluctuate accordingly. We have incurred net losses since our inception and have not recorded any federal, state or foreign current income tax provisions, with the exception of (i) recognition of unrecognized tax benefits since inception, (ii) a recovery of income taxes in the 258 day period ended September 30, 2009, and (iii) recognition of current income taxes in Canada. We have a full valuation allowance against our net deferred tax assets. Additionally, under the U.S. Internal Revenue Code, our net operating loss carryforwards and tax credits may be limited if a cumulative change in ownership of more than 50% is deemed to have occurred within a three year period. We have not performed a detailed analysis to determine whether an ownership change under Section 382 of the Internal Revenue Code has occurred after each of our previous issuances of shares of common stock and warrants.

Edgar Filing: BioAmber Inc. - Form 10-Q

Comparison of Three months ended September 30, 2016 and September 30, 2015

The following table shows the amounts of the listed items from our consolidated statements of operations for the periods presented, showing period-over-period changes:

| | Three Months Ended September 30, | | |
|---|--|---------|---------|
| | 2016 | 2015 | Change |
| | \$ | \$ | \$ |
| | (in thousands) | | |
| Product sales | \$3,661 | \$352 | \$3,309 |
| Cost of goods sold excluding depreciation and amortization | 5,035 | 367 | 4,668 |
| Operating expenses | | | |
| General and administrative | 1,767 | 2,220 | (453) |
| Research and development, net | 1,773 | 5,999 | (4,226) |
| Sales and marketing | 479 | 921 | (442) |
| Depreciation of property and equipment and amortization of intangible assets | 1,208 | 124 | 1,084 |
| Foreign exchange (gain) loss | (29) | 610 | (639) |
| Operating expenses | 5,198 | 9,874 | (4,676) |
| Operating loss | (6,572) | (9,889) | 3,317 |
| Amortization of debt discounts | 1,038 | 123 | 915 |
| Financial charges (income), net | 3,190 | (1,552) | 4,742 |
| Grant income | (4,047) | — | (4,047) |
| Other expense (income), net | (34) | (1) | (33) |
| Loss before income taxes | (6,719) | (8,459) | 1,740 |
| Income taxes | — | (28) | 28 |
| Net loss | (6,719) | (8,431) | 1,712 |
| Net loss attributable to: | | | |
| BioAmber Inc. shareholders | (6,158) | (7,051) | 893 |
| Non-controlling interest | (561) | (1,380) | 819 |
| | (6,719) | (8,431) | 1,712 |

Product sales

Product sales increased from \$352,000 for the three months ended September 30, 2015 to \$3.7 million for the three months ended September 30, 2016 due to an increase in product volume sold, partially offset by a decrease in average selling price.

Cost of goods sold

Cost of goods sold increased from \$367,000 for the three months ended September 30, 2015 to \$5.0 million for the three months ended September 30, 2016. This increase was driven primarily by an increase in volume sold, as well as Sarnia facility ramp-up costs, including fixed costs and reprocessing costs for off-specifications products that were allocated to the cost of goods sold.

General and administrative expenses

General and administrative expenses decreased by \$453,000 to \$1.8 million for the three months ended September 30, 2016, as compared to \$2.2 million for the three months ended September 30, 2015. This was driven by a decrease in salaries and benefits expense and recruitment fees, offset by an increase in salaries and benefits expense associated with the Sarnia facility transition from construction to production stage, and an increase in stock-based compensation expense.

Research and development expenses

Research and development expenses decreased by \$4.2 million to \$1.8 million for the three months ended September 30, 2016, as compared to \$6.0 million for the three months ended September 30, 2015. This was due to the fact that the costs related to the commissioning of the plant incurred in the prior year were recorded in research and development. It is also explained by reduced expenses related to the molecular engineering of the yeast and lower costs related to intellectual property, partially offset by an increase in royalties expense associated with sales from Sarnia facility.

Sales and marketing expenses

Sales and marketing expenses decreased by \$442,000 to \$479,000 for the three months ended September 30, 2016, as compared to \$921,000 the three months ended September 30, 2015. This was driven by a decrease in salaries, benefits and associated costs, including stock-based compensation and travel expense, following the reorganization of our commercial function in the first quarter of 2016.

Foreign exchange (gain) loss

The foreign exchange (gain) loss decreased from a loss of \$610,000 for the three months ended September 30, 2015 compared to a gain of \$29,000 for the three months ended September 30, 2016. This slight gain during the three months ended September 30, 2016 was driven by a relative stability of the U.S. Dollar versus the Canadian Dollar during the three months ended September 30, 2016.

Financial charges (income), net

Financial charges (income), net decreased to a charge of \$3.2 million for the three months ended September 30, 2016 as compared to an income of \$1.6 million for the three months ended September 30, 2015. This variation of \$4.7 million is mainly due to the non-cash mark-to-market adjustment change of \$3.4 million on the warrants that were part of the units issued in our IPO, as well as on the June 2009 Warrants and the April 2011 Warrants. It is also due to an increase in end of term charge of \$602,000 and interest and other charges of \$600,000 in connection with the repayment of TCP loan during the third quarter 2016.

Grant income

During the three months ended September 30, 2016, the Milestone IV from SDTC grant was completed and reclassified from deferred grant to grant income, along with a portion of the remaining 10% holdback.

Comparison of Nine Months Ended September 30, 2016 and Nine Months Ended September 30, 2015

The following table shows the amounts of the listed items from our consolidated statements of operations for the periods presented, showing period-over-period changes:

| | Nine Months Ended September 30, | | |
|---|------------------------------------|----------|----------|
| | 2016 | 2015 | Change |
| | \$ | \$ | \$ |
| | (in thousands) | | |
| Product sales | \$7,641 | \$1,061 | \$6,580 |
| Cost of goods sold excluding depreciation and amortization | 11,578 | 1,429 | 10,149 |
| Operating expenses | | | |
| General and administrative | 7,376 | 7,812 | (436) |
| Research and development, net | 5,145 | 15,568 | (10,423) |
| Sales and marketing | 2,219 | 3,198 | (979) |
| Depreciation of property and equipment and amortization of intangible assets | 3,600 | 288 | 3,312 |
| Write-off of intangible assets | — | 1,141 | (1,141) |
| Foreign exchange loss | 117 | 868 | (751) |
| Operating expenses | 18,457 | 28,875 | (10,418) |
| Operating loss | (22,394) | (29,243) | 6,849 |
| Amortization of deferred financing costs and debt discounts | 2,478 | 281 | 2,197 |
| Financial charges (income), net | (4,660) | 2,801 | (7,461) |
| Grant income | (4,047) | — | (4,047) |
| Other expense (income), net | 138 | (21) | 159 |
| Loss before income taxes | (16,303) | (32,304) | 16,001 |
| Income taxes | 19 | 15 | 4 |
| Net loss | (16,322) | (32,319) | 15,997 |
| Net loss attributable to: | | | |
| BioAmber Inc. shareholders | (12,293) | (29,428) | 17,135 |
| Non-controlling interest | (4,029) | (2,891) | (1,138) |
| | (16,322) | (32,319) | 15,997 |

Product sales

Product sales increased from \$1.1 million for the nine months ended September 30, 2015 to \$7.6 million for the nine months ended September 30, 2016 due to an increase in product volume sold, partially offset by a decrease in average selling price.

Cost of goods sold

Cost of goods sold increased from \$1.4 million for the nine months ended September 30, 2015 to \$11.6 million for the nine months ended September 30, 2016. The increase is primarily due to an increase in volume sold, as well as Sarnia facility ramp-up costs, including fixed costs and reprocessing costs for off-specifications products that were allocated to the cost of goods sold.

General and administrative expenses

General and administrative expenses decreased by \$436,000, to \$7.4 million for the nine months ended September 30, 2016, as compared to \$7.8 million for the nine months ended September 30, 2015. This was driven by a decrease in incentive employee remuneration, in stock-based compensation expense and in recruiting costs. It is offset by an increase in salaries and benefits expense associated with the Sarnia facility transition from construction to production stage.

Research and development expenses, net

Research and development expenses, net, decreased by \$10.4 million, to \$5.1 million for the nine months ended September 30, 2016, as compared to \$15.6 million for the nine months ended September 30, 2015. This was due to the fact that the costs related to the commissioning of the plant incurred in the prior year were recorded in research and development. It is also explained by reduced expenses related to the molecular engineering of the yeast, lower costs related to intellectual property and decrease in stock-based

compensation expense. Those reductions are partially offset by an increase in royalties expense associated with sales from Sarnia facility.

Sales and marketing expenses

Sales and marketing expenses decreased by \$1.0 million to \$2.2 million for the nine months ended September 30, 2016, as compared to \$3.2 million the nine months ended September 30, 2015. This was driven by a decrease in salaries, benefits and associated costs, including stock-based compensation and travel expense, following the reorganization of our commercial function in the first quarter of 2016.

Foreign exchange loss

The foreign exchange loss decreased by \$751,000 to \$117,000 for the nine months ended September 30, 2016 as compared to a loss \$868,000 for the nine months ended September 30, 2015. The foreign exchange loss was driven by a strengthening of the Canadian Dollar versus the U.S. Dollar during the nine months ended September 30, 2016, which impacted our debt in Canadian dollar with Bridging, and our U.S. Dollar trade receivable balance in our subsidiary with Canadian functional currency.

Financial charges (income), net

Financial charges (income), net comprised of an income of \$4.7 million for the nine months ended September 30, 2016 as compared to a charge \$2.8 million for the nine months ended September 30, 2015. This variation of \$7.5 million is mainly due to the non-cash mark-to-market adjustment change of \$8.5 million on the warrants that were part of the units issued in our IPO, as well as on the June 2009 Warrants and the April 2011 Warrants, offset by an increase in end of term charge of \$517,000 and interest and other charges of \$600,000 in connection with the repayment of TCP loan during the third quarter 2016.

Grant income

During the three months ended September 30, 2016, the Milestone IV from SDTC grant was completed and reclassified from deferred grant to grant income, along with a portion of the remaining 10% holdback.

Liquidity and Capital Resources

From inception through September 30, 2016, we have funded our operations primarily from an aggregate of \$292.8 million raised from public offerings of our equity securities, private placements of our equity securities, and the sale of shares issued by a subsidiary and convertible notes, including net proceeds of \$11.9 million from our January 2016 public offering of our common stock and Mitsui's additional capital contribution of CAD\$25.0 million in the first quarter of 2016. We also received CAD\$82 million from loan and grant proceeds from various Canadian institutional and government agencies in BioAmber Sarnia, including CAD\$10 million from BDC in August 2016, and proceeds of CAD\$25 million from a demand non-revolving credit facility with Bridging at the corporate level in September 2016.

We began commissioning and start-up of our Sarnia facility in March 2015, achieved mechanical completion in June 2015 and started production in the last quarter of 2015. We will require funds to ramp up production levels at our Sarnia facility and for general corporate purposes. We expect to fund these needs through available cash on hand and

by other strategies, including one or more of the following:

- Increase revenues from succinic acid sales
- Reduce our production costs at our Sarnia facility
- Reduce or delay operating expenses as deemed appropriate in order to conserve cash
- Trigger the exercise of our IPO warrants, if needed
- Raise additional equity capital and or debt financing

Based on these initiatives listed above and the cash on hand at September 30, 2016, we believe we have sufficient cash to fund our operations for at least the next twelve months.

There are certain covenants in our debt and grant agreements, which are discussed in the notes to our consolidated financial statements. We are in compliance with all of the covenants provided in each of these agreements. We expect to continue to be in compliance with these covenants in the future.

The following table sets forth the major sources and uses of cash for each of the periods set forth below (in thousands):

Edgar Filing: BioAmber Inc. - Form 10-Q

| | Nine Months Ended September 30, 2016 2015 (in thousands) | |
|---|---|----------|
| Net cash used in operating activities | (33,101) | (22,491) |
| Net cash used in investing activities | (540) | (62,878) |
| Net cash provided by financing activities | 42,231 | 70,457 |

Operating activities

The cash from operating activities is primarily used for general and administrative expenses and research and development activities. These include expenses on research and development projects, expenses related to the Sarnia facility production operations, consultancy and advisory fees from third parties, licensing and royalty expenses, payroll expenses, legal and accounting expenses and office rent and utilities.

Cash used in operating activities during the nine months ended September 30, 2016 of \$33.1 million reflected our net loss of \$16.3 million, which was adjusted for non-cash items of \$3.3 million and a negative change in operating assets and liabilities of \$13.5 million. Non-cash adjustments included stock-based compensation of \$2.7 million, \$3.6 million of depreciation and amortization, financial income of \$8.1 million including the mark-to-market accounting for our financial liability warrants and the end of term charge on long-term debt, amortization of debt discounts of \$2.5 million and grant income of \$4.0 million. The amount of operating assets and liabilities is a net outflow of \$13.5 million due to a decrease in current liabilities and an increase in current assets.

Cash used in operating activities during the nine months ended September 30, 2015 of \$22.5 million reflected our net loss of \$32.3 million, which was adjusted for non-cash charges of \$6.6 million and a positive change in operating assets and liabilities of \$3.2 million. Non-cash expense adjustments included stock-based compensation of \$3.9 million, \$1.1 million of intangible assets write-off and financial charges of \$1.0 million including the mark-to-market accounting for warrants that were part of the units issued in our IPO and the June 2009 and April 2011 Warrants, and the end of term charge on long-term debt. The amount of operating assets and liabilities is a net inflow of \$3.2 million due to an increase in current liabilities and a decrease in current assets.

Investing activities

Cash used in investing activities during the nine months ended September 30, 2016 of \$540,000 included property and equipment purchases.

Cash used in investing activities during the nine months ended September 30, 2015 of \$62.9 million included property and equipment purchases mostly related to the building of our facility in Sarnia, Ontario of \$62.5 million.

Financing activities

Cash provided by financing activities during the nine months ended September 30, 2016 of \$42.2 million included the proceeds from issuance of shares of the January 2016 public offering, for a total of \$11.9 million, capital contributions by Mitsui to our BioAmber Sarnia joint venture of \$17.7 million, principal reimbursement of various loans for \$14.1 million, SDTC grant for \$1.1 million, and new loan received from BDC and Bridging for a total of \$27.0 million.

Cash provided by financing activities during the nine months ended September 30, 2015 of \$70.5 million included the proceeds from issuance of shares including the May 2015 public offering, for a total of \$33.1 million, an additional disbursement of \$30.0 million from the government under the actual loans and grants agreements, including the loan proceeds of the CAD\$20.0 million commercial loan from a financial consortium including Export Canada Development (EDC), Comerica, and Farm Credit Canada, capital contributions by Mitsui to our BioAmber Sarnia joint venture of \$9.0 million, and reimbursement of our EDC loan for \$0.6 million.

Off-balance Sheet Arrangements

During the periods presented, we did not have, and we do not currently have, any relationships with unconsolidated entities, such as entities often referred to as structured finance or special purpose entities, established for the purpose of facilitating off-balance sheet arrangements or other contractually narrow or limited purposes.

Critical Accounting Policies and Estimates

We prepare our condensed consolidated financial statements in accordance with accounting principles generally accepted in the United States of America. As such, management is required to make certain estimates, judgments and assumptions that it believes are

reasonable based on the information available. These estimates and assumptions affect the reported amounts of assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses for the periods presented. The significant accounting policies which management believes are the most critical to aid in fully understanding and evaluating our reported financial results include fair value determination of assets, liabilities, fair value of intangible assets and goodwill, useful lives of intangible assets, income taxes, stock-based compensation and value of certain equity and debt instruments. These critical accounting policies are the same as those detailed in the notes to our audited consolidated financial statements included in our Annual Report on Form 10-K for the year ended December 31, 2015.

Recent accounting pronouncements

For information on recent accounting pronouncements, see "Recently adopted and recently issued accounting guidance" in the notes to the consolidated financial statements appearing in Part I, Item 1 of this Quarterly Report on Form 10-Q.

Item 3. Quantitative and Qualitative Disclosures About Market Risk

Interest Rate Risk

We had cash totaling \$15.9 million at September 30, 2016. These amounts were deposited in current and interest-bearing accounts and were held for working capital purposes. The company's long-term loan with EDC bears interest at floating interest rate per annum based on the Canadian prime rate plus an interest spread of 5%. If the Canadian prime rate were to increase, the interest rates for the remaining term of the loans would increase.

Commodity Price Risk

We use glucose in our processes, which can be derived from corn, wheat and other feedstocks. Thus, our raw material is sensitive to price fluctuations in feedstock commodities. Prices of corn, wheat and other feedstocks are subject to fluctuations due to unpredictable factors such as weather, quantities planted and harvested, changes in national and global supply and demand, and government programs and policies.

Foreign Currency Risk

We currently conduct our operations in U.S. dollars, Canadian dollars and Euros, which exposes us to fluctuations in foreign currency exchange rates. Our foreign currency risk is expected to increase with the ramp-up of our Sarnia facility, as our sources of cash are primarily in U.S. dollars, while our uses of cash are primarily in Canadian dollars. We will monitor the amounts and timing of foreign currency exposures related to the operations of the facility and will look to mitigate exposure through normal business operations such as manufacturing and selling in the same currencies where practical. We may use forward contracts or currency swaps to mitigate any remaining exposure.

Item 4. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

As of September 30, 2016, our management, with the participation of our President and Chief Executive Officer and our Chief Financial Officer, evaluated the effectiveness of our disclosure controls and procedures pursuant to Rules 13a-15(b) and 15d-15(e) promulgated under the Securities Exchange Act of 1934, as amended, or the Exchange Act. Based upon that evaluation, our President and Chief Executive Officer and our Chief Financial Officer concluded that,

as of September 30, 2016, our disclosure controls and procedures were effective at a reasonable assurance level in ensuring that material information required to be disclosed in the reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the rules, regulations and forms of the Securities and Exchange Commission, including ensuring that such material information is accumulated and communicated to our management, including our President and Chief Executive Officer and our Chief Financial Officer, as appropriate to allow timely decisions regarding required disclosure.

Changes in Internal Control over Financial Reporting

There were no changes to our internal control over financial reporting that occurred during the quarter ended September 30, 2016 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Inherent Limitations of Internal Controls

Our management does not expect that our disclosure controls and procedures or our internal controls will prevent all error and all fraud. A control system, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the

objectives of the control system are met. 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. 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. Additionally, controls can be circumvented by the individual acts of some persons, by collusion of two or more people, or by management override of the control. The design of any system of controls also 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. Over time, controls may become inadequate because of changes in conditions, or the degree of compliance with the policies or procedures may deteriorate. Because of the inherent limitations in a cost-effective control system, misstatements due to error or fraud may occur and not be detected.

PART II—OTHER INFORMATION

Item 1. Legal Proceedings

We may be, from time to time, involved in the normal course of business in various legal proceedings. Rules of the Securities and Exchange Commission require the description of material pending legal proceedings, other than ordinary, routine litigation incident to our business, and advise that proceedings ordinarily need not be described if they primarily involve damages claims for amounts (exclusive of interest and costs) not individually exceeding 10% of the current assets of the registrant and its subsidiaries on a consolidated basis. We are not presently a party to any legal proceedings that, if determined adversely to us, would individually or taken together have a material adverse effect on our business, operating results, financial condition or cash flows. There may be claims or actions pending or threatened against us of which we are currently not aware and the ultimate disposition of which would have a material adverse effect on us.

Item 1A. Risk Factors

Part I, Item 1A, “Risk Factors” of our Annual Report on Form 10-K for the year ended December 31, 2015 filed with the Securities and Exchange Commission on March 15, 2016, sets forth information relating to important risks and uncertainties that could materially adversely affect our business, financial condition and operating results. Except to the extent that information disclosed elsewhere in this Quarterly Report on Form 10-Q relates to such risk factors (including, without limitation, the matters described in Part I, Item 2, “Management’s Discussion and Analysis of Financial Condition and Results of Operations”), there have been no material changes to our risk factors disclosed in our Annual Report on Form 10-K for the year ended December 31, 2015 filed on March 15, 2016. However, those risk factors continue to be relevant to an understanding of our business, financial condition and operating results and, accordingly, you should review and consider such risk factors in making any investment decision with respect to our securities.

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

None

Item 5. Other Information

Our investors and others should note that we announce material financial and other information using our company website (www.bio-amber.com), our investor relations website (investor.bio-amber.com), SEC filings, press releases, public conference calls and webcasts. In addition, our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934 are available free of charge through the investor relations page of our internet website as soon as reasonably practicable after we electronically file such material with, or furnish it to, the Securities and Exchange Commission. Alternatively, these reports may be accessed at the SEC's website at www.sec.gov. Information about BioAmber, its business, and its results of operations may also be announced by posts on the following social media channels

BioAmber's Twitter feed (<https://twitter.com/bioamber>)

BioAmber's Facebook feed (<https://www.facebook.com/bioamber>)

BioAmber's LinkedIn feed (<https://goo.gl/YhtwRZ>)

BioAmber's Google+ feed (<https://plus.google.com/+BioamberInc/posts>)

BioAmber's youtube feed (www.youtube.com/user/BioAmber)

The information that we post on these social media channels could be deemed to be material information. As a result, we encourage investors, the media, and others interested in BioAmber to review the information that we post on these social media channels. These channels may be updated from time to time on BioAmber's investor relations website.

Item 6. Exhibits

The exhibits listed below are filed as part of this Quarterly Report on Form 10-Q.

| Exhibit No. | Exhibit Description | Filed or Furnished Herewith | Incorporated by Reference | | | Filing Date |
|-------------|---|-----------------------------|---------------------------|--------------|---------|-------------|
| | | | Form | SEC File No. | Exhibit | |
| 3.1 | Amended and Restated Certificate of Incorporation | | S-1 | 333-177917 | 3.1 | 4/11/13 |
| 3.2 | Amended and Restated By-laws | | S-1 | 333-177917 | 3.2 | 4/11/13 |
| 4.1 | Specimen Common Stock Certificate | | S-1 | 333-177917 | 4.1 | 4/11/13 |
| 4.2 | Form of Common Stock Purchase Warrant | | S-1 | 333-177917 | 4.6 | 5/9/13 |
| 10.1 | Letter Agreement Offer of financing with BioAmber Inc. and Bridging Finance Inc. dated as of September 9, 2016 | X | | | | |
| 31.1 | Certification of the Principal Chief Executive Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 | X | | | | |
| 31.2 | Certification of the Principal Chief Financial Officer pursuant Section 302 of the Sarbanes-Oxley Act of 2002 | X | | | | |
| 32.1* | Certification of the Principal Chief Executive Officer and Principal Financial Officer pursuant Section 906 of the Sarbanes-Oxley Act of 2002 | X | | | | |
| 101.INS | XBRL Instance Document | X | | | | |
| | | X | | | | |

| | | |
|---------|--|---|
| 101.SCH | XBRL Taxonomy Extension Schema Document | |
| 101.CAL | XBRL Taxonomy Extension Calculation Linkbase Document | X |
| 101.DEF | XBRL Taxonomy Extension Definition Linkbase Document | X |
| 101.LAB | XBRL Taxonomy Extension Labels Linkbase Document | X |
| 101.PRE | XBRL Taxonomy Extension Presentation Linkbase Document | X |

*The certification furnished in Exhibit 32.1 hereto are deemed to accompany this Quarterly Report on Form 10-Q and will not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, except to the extent that the Registrant specifically incorporates it by reference.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

BIOAMBER INC.

November 7, 2016

By: /s/ Jean-François Huc
Jean-François Huc
President and Chief Executive Officer
(Principal Executive Officer)

By: /s/ Mario Saucier
Mario Saucier
Chief Financial Officer
(Principal Financial Officer)