

BioAmber Inc.
Form 424B5
February 09, 2018
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Filed pursuant to Rule 424(b)(5)
Registration No. 333-215408

The information in this preliminary prospectus supplement is not complete and may be changed. This preliminary prospectus supplement and the accompanying prospectus are not an offer to sell these securities and we are not soliciting an offer to buy these securities in any jurisdiction where the offer or sale is not permitted.

SUBJECT TO COMPLETION, DATED FEBRUARY 9, 2018

Prospectus Supplement to Prospectus dated January 12, 2017

BioAmber Inc.

Series A Units consisting of one share of Common Stock, one Series A Common Warrant to purchase one share of Common Stock and one Series B Common Warrant to purchase one share of Common Stock and one Series C Common Warrant to purchase shares of Common Stock

Series B Units consisting of one Pre-Funded Common Warrant to purchase one share of Common Stock, one Series A Common Warrant to purchase one share of Common Stock, one Series B Common Warrant to purchase one share of Common Stock and one Series C Common Warrant to purchase shares of Common Stock

We are offering for sale Series A Units, with each Series A Unit consisting of one share of our common stock, par value \$0.01 per share, one Series A common stock purchase warrant, or Series A common warrant, to purchase one share of our common stock, and one Series B common stock purchase warrant, or Series B common warrant, to purchase one share of our common stock and one Series C common stock purchase warrant, or Series C common warrant (and the shares of common stock issuable from time to time upon exercise of these common warrants). Each Series A Unit will be sold at a price of \$0.15 per unit. The shares of common stock and the Series A common warrants and the Series B common warrants part of a Series A Unit are immediately separable and will be issued separately, but can only be purchased together in this offering.

We are also offering for sale to those investors whose purchase of Series A Units in this offering would result in such investor, together with its affiliates and certain related parties, beneficially owning more than 4.99% of our outstanding common stock following the consummation of this offering, the opportunity to purchase, in lieu of Series A Units that would otherwise result in ownership in excess of 4.99% of our outstanding common stock, Series B Units. Each Series B Unit will consist of one pre-funded common stock purchase warrant, or pre-funded warrant, to purchase one share of our common stock, one Series A common warrant, one Series B common warrant and one Series C common stock purchase warrant, or Series C common warrant (we refer to the Series A common warrants,

Series B common warrants and Series C common warrants collectively as the common warrants) (and the shares of common stock issuable from time to time upon exercise of these pre-funded warrants or the common warrants, or together, the warrants). The Series A Units and the Series B Units are referred to herein as the Units. Each Series B Unit will be sold at a price of \$0.149 per unit. The pre-funded warrants, the Series A common warrants and the Series B common warrants part of a Series B Unit are immediately separable and will be issued separately (including any shares of common stock issuable from time to time upon any exercise of such warrants), but can only be purchased together in this offering.

Each Series A common warrant to purchase shares of common stock will have an initial exercise price of \$0.15 per share, subject to adjustment as set forth therein, and will be exercisable during the period commencing on the date of original issuance and ending on August , 2018, the expiration date of the Series A common warrants. Each Series B common warrant to purchase shares of common stock will have an initial exercise price of \$0.15 per share, subject to adjustment as set forth therein, and will be exercisable during the period commencing on the date of original issuance and ending on February , 2023, the expiration date of the Series B common warrants. Each pre-funded warrant to purchase shares of common stock will have an exercise price of \$0.15 per share, subject to adjustment as set forth therein, will be immediately exercisable and will be exercisable until the pre-funded warrant is exercised in full. The exercise price of each pre-funded warrant of \$0.15 per share, subject to adjustment as set forth therein, will be pre-paid, except for a nominal exercise price of \$0.001 per share of common stock, upon issuance of the pre-funded warrants and, consequently, no additional payment or other consideration (other than the nominal exercise price of \$0.001 per share) will be required to be delivered to us by the holder upon exercise. Each Series C common warrant will be immediately exercisable and will be exercisable until the Series C common warrant is exercised in full. Each Series C common warrant will have a nominal exercise price of \$0.00001 per share, subject to adjustment as set forth therein, and consequently, no additional payment or other consideration (other than the nominal exercise price of \$0.00001 per share) will be required to be delivered to us by the holder upon exercise. The number of shares underlying the Series C common warrants is initially zero, but may be increased at the end of the 5th trading day following the public announcement of this offering (or such earlier trading day on which 90% of our daily volume weighted average price of the our common stock on the our trading market on such date is equal to or less than \$0.05), to an amount equal to the difference between (1) subscription amount of each purchaser of the Series B units divided by the lesser of (a) the original per-unit purchase price of the Series A or Series B units and (b) the greater of (i) 90% of the lowest daily volume weighted average price of the our common stock on the our trading market during the five trading days including and immediately prior to such date and (ii) \$0.05, and (2) the sum of the number of shares of common stock and pre-funded warrants, if any, issued to the purchaser at the closing of this offering. This prospectus supplement also relates to the offering of the shares of common stock from time to time issuable upon exercise of the common warrants and the pre-funded warrants.

The closing of this offering is subject to customary closing conditions, and the quotation of our common stock on a United States trading market, including the OTCBB, OTCQB or the Pink Sheets. The NYSE suspended trading in our common stock and commenced delisting procedures on February 8, 2018. The NYSE's application to the Securities and Exchange Commission to delist the our common stock is pending, subject to the completion of applicable procedures, including any appeal by us of the NYSE's decision. We intend to obtain the quotation of our common stock on the OTCQB marketplace. We can provide no assurance that our common stock will commence trading on such marketplace (or, if commenced, continue to trade on this market), whether broker-dealers will continue to provide public quotes of our common stock on this market, whether the trading volume of our common stock will be sufficient to provide for a liquid trading market or whether quotes for our common stock may be blocked by this market in the future. There is no established trading market for the common warrants or the pre-funded warrants and none is expected to develop after this offering. The common warrants and the pre-funded warrants are not and will not be listed on any national securities exchange or other trading market. We will not be seeking the approval of the TSX in connection with this offering and it is expected that, as a result, our common stock may be delisted from the TSX.

Investing in our securities involves significant risks. Please read the information contained in or incorporated by reference under the heading Risk Factors beginning on page S-12 of this prospectus supplement, and under similar headings in other documents filed after the date hereof and incorporated by reference into this prospectus supplement and the accompanying prospectus.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus supplement or the accompanying prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

	Per Series A Unit (2)	Per Series B Unit (2)	Total
Offering price(1)	\$ 0.15	\$ 0.149	\$
Placement agent fees (3)	\$ 0.009	\$ 0.009	\$
Proceeds, before expenses, to us(4)	\$ 0.141	\$ 0.140	\$

- (1) Initial gross proceeds. If the common warrants are exercised in full, we will receive additional gross proceeds of \$ _____ in the aggregate.
- (2) The purchase price and placement agent fees correspond to: (x) in respect of the Series A Units, (i) a purchase price per share of common stock of \$ _____, (ii) a purchase price per share underlying the Series A common warrants of \$ _____ and (iii) a purchase price per share underlying the Series B common warrants of \$ _____, and (y) in respect of the Series B Units, (i) a purchase price per pre-funded warrant of \$ _____, (ii) a purchase price per share underlying the Series A common warrants of \$ _____, (iii) a purchase price per share underlying the Series B common warrants of \$ _____, and (iv) a purchase price per share underlying the Series C common warrants of \$ _____.
- (3) We have agreed to reimburse the placement agent for certain of their expenses as described under the _____ Plan of Distribution _____ section on page S-45 of this prospectus supplement.
- (4) If the common warrants are exercised in full, net proceeds in this offering, before any additional expenses, will increase to \$ _____ in the aggregate.
- Delivery of the shares and the warrants will take place within two trading days following the satisfaction of the closing conditions for this offering.

H.C. Wainwright & Co.

Prospectus Supplement dated February _____, 2018

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ABOUT THIS PROSPECTUS SUPPLEMENT

This document is part of the registration statement that we filed with the Securities and Exchange Commission, or the SEC, using a shelf registration process and consists of two parts. The first part is this prospectus supplement, which describes the specific terms of this offering. The second part, the accompanying prospectus, gives more general information, some of which may not apply to this offering. Generally, when we refer only to the prospectus, we are referring to both parts combined. This prospectus supplement may add to, update or change information in the accompanying prospectus and the documents incorporated by reference into this prospectus supplement or the accompanying prospectus.

If information in this prospectus supplement is inconsistent with the accompanying prospectus or with any document incorporated by reference that was filed with the SEC before the date of this prospectus supplement, you should rely on this prospectus supplement. This prospectus supplement, the accompanying prospectus and the documents incorporated into each by reference include important information about us, the securities being offered and other information you should know before investing in our securities. You should also read and consider information in the documents we have referred you to in the sections of this prospectus supplement entitled *Where You Can Find Additional Information* and *Incorporation of Certain Information by Reference*.

You should rely only on this prospectus supplement, the accompanying prospectus, the documents incorporated or deemed to be incorporated by reference herein or therein and any free writing prospectus prepared by us or on our behalf. We have not, and the placement agent has not, authorized anyone to provide you with information that is in addition to or different from that contained or incorporated by reference in this prospectus supplement and the accompanying prospectus. If anyone provides you with different or inconsistent information, you should not rely on it. We and the placement agent are not offering to sell these securities in any jurisdiction where the offer or sale is not permitted. You should not assume that the information contained in this prospectus supplement, the accompanying prospectus or any free writing prospectus, or incorporated by reference herein, is accurate as of any date other than as of the date of this prospectus supplement or the accompanying prospectus or any free writing prospectus, as the case may be, or in the case of the documents incorporated by reference, the date of such documents regardless of the time of delivery of this prospectus supplement and the accompanying prospectus or any sale of our securities. Our business, financial condition, liquidity, results of operations and prospects may have changed since those dates.

All references in this prospectus supplement or the accompanying prospectus to *the Company*, *our company*, *we*, *us*, or *our* mean BioAmber Inc. and its subsidiaries, unless we state otherwise or the context otherwise requires.

No action is being taken in any jurisdiction outside the United States to permit a public offering of the securities or possession or distribution of this prospectus supplement or the accompanying prospectus in that jurisdiction. Persons who come into possession of this prospectus supplement or the accompanying prospectus in jurisdictions outside the United States are required to inform themselves about and to observe any restrictions as to this offering and the distribution of this prospectus supplement or the accompanying prospectus applicable to that jurisdiction.

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WHERE YOU CAN FIND ADDITIONAL INFORMATION

We have filed with the SEC a registration statement on Form S-3 (File No. 333-215408) under the Securities Act of 1933, as amended, or the Securities Act, with respect to the securities offered by this prospectus supplement and the accompanying prospectus. This prospectus supplement and the accompanying prospectus filed as part of the registration statement do not contain all the information set forth in the registration statement and its exhibits and schedules. For further information about us, we refer you to the registration statement and to its exhibits and schedules.

We file annual, quarterly and current reports and other information with the SEC. You may read and copy any materials we file at the SEC's Public Reference Room at 100 F Street, N.E., Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information about the Public Reference Room. The SEC also maintains an internet website at www.sec.gov that contains periodic and current reports, proxy and information statements, and other information regarding registrants that file electronically with the SEC. The NYSE suspended trading in our common stock and commenced delisting procedures on February 8, 2018. The NYSE's application to the Securities and Exchange Commission to delist our common stock is pending, subject to the completion of applicable procedures, including any appeal by us of the NYSE's decision. We will not be seeking the approval of the TSX in connection with this offering and it is expected that, as a result, our common stock may be delisted from the TSX. Reports, proxy statements and other information concerning us can also be inspected at the offices of the NYSE, 20 Broad Street, New York, New York 10005.

These documents are also available, free of charge, through the investor relations section of our website, which is located at www.bio-amber.com. Information contained on or accessible through our website is not incorporated by reference into this prospectus supplement or the accompanying prospectus and you should not consider information on or accessible through our website to be part of this prospectus supplement or the accompanying prospectus.

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INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC allows us to incorporate by reference the information we file with it, which means that we can disclose important information to you by referring you to those documents instead of having to repeat the information in this prospectus supplement and the accompanying prospectus. The information incorporated by reference is considered to be part of this prospectus supplement and the accompanying prospectus, and later information that we file with the SEC prior to the completion of this offering will automatically update and supersede this information. We incorporate by reference the documents listed below that we have filed with the SEC:

description of our common stock contained in our Registration Statement on Form 8-A, filed on May 1, 2013;

our Annual Report on Form 10-K for the fiscal year ended December 31, 2016, filed on March 16, 2017;

our Quarterly Reports on Form 10-Q for the quarterly period ended March 31, 2017, filed on May 10, 2017, for the quarterly period ended June 30, 2017, filed on August 4, 2017, and for the quarterly period ended September 30, 2017, filed on November 8, 2017;

our Current Reports on Form 8-K filed on January 23, 2017, January 27, 2017, January 30, 2017, February 21, 2017, March 31, 2017, May 4, 2017, May 15, 2017, August 3, 2017, August 11, 2017, September 13, 2017, September 14, 2017, October 24, 2017, January 26, 2018, February 5, 2018 (as amended) and February 8, 2018 (except that, with respect to each of the foregoing Current Reports, any portions thereof which are furnished and not filed shall not be deemed incorporated by reference into this prospectus supplement); and

our Proxy Statement on Schedule 14A filed on March 31, 2017 (solely to the extent specifically incorporated by reference into our Annual Report on Form 10-K for the year ended December 31, 2016).

We also incorporate by reference into this prospectus supplement and the accompanying prospectus all documents (other than current reports furnished under Item 2.02 or Item 7.01 of Form 8-K and exhibits filed on such form that are related to such items) that are filed by us with the SEC pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934, as amended, or the Exchange Act, after the date of this prospectus supplement until we sell all of the securities covered by this prospectus supplement and the accompanying prospectus or the sale of securities by us pursuant to this prospectus supplement and the accompanying prospectus is terminated.

A statement contained in a document incorporated by reference into this prospectus supplement and the accompanying prospectus shall be deemed to be modified or superseded for purposes of this prospectus supplement and the accompanying prospectus to the extent that a statement contained in this prospectus supplement and the accompanying prospectus or in any other subsequently filed document which is also incorporated in this prospectus supplement and the accompanying prospectus modifies or replaces such statement. Any statements so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this prospectus supplement and the accompanying prospectus.

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You may request a copy of these documents, orally or in writing, which will be provided to you at no cost by contacting: BioAmber Inc., 1250 Rene Levesque West, Suite 4310, Montreal, Quebec, Canada H3B 4W8, or calling (514) 844-8000.

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SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus supplement and the accompanying prospectus contain or incorporate 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 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, should, will, would, plan, projected or the negative of such words or other similar words or phrases. We believe 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. Investors 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:

our ability to generate sufficient cash flows and obtain the additional financing we need in order to continue as a going concern and to grow our business, develop or enhance our products or respond to competitive pressures;

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 ability to maintain compliance with the terms of our senior secured loan, or to obtain continuing waivers of our obligations;

the impact of the termination of our joint venture with Mitsui & Co. Ltd., or Mitsui, on our ability to maintain and expand our operations at our Sarnia, Ontario facility;

our ability to retain members of our senior management team;

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;

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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;

our ability to maintain an effective system of internal controls, remediate our existing material weakness and prevent future material weaknesses or significant deficiencies from occurring;

the suspension from trading and initiation of delisting of our common stock from the NYSE;

the potential delisting of our common stock from the TSX; and

our ability to obtain the listing or quotation of our common stock on a United States trading market; and other risks and uncertainties referenced under "Risk Factors" below and in any applicable free writing prospectus and any documents incorporated by reference herein. Readers 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 prospectus supplement or the respective dates of documents incorporated by reference herein or therein that include forward-looking statements.

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SUMMARY

This summary highlights selected information contained elsewhere or incorporated by reference in this prospectus supplement and the accompanying prospectus. This summary does not contain all the information that you should consider before investing in our securities. You should read the entire prospectus supplement and the accompanying prospectus carefully, including Risk Factors contained in this prospectus supplement, the accompanying prospectus and the documents incorporated by reference herein and therein and the financial statements incorporated by reference in this prospectus supplement and the accompanying prospectus, before making an investment decision.

Overview

We are an industrial biotechnology company producing renewable chemicals. Our proprietary technology platform combines industrial biotechnology and chemical catalysis to convert biobased feedstocks into renewable chemicals that aim to be cost-competitive replacements for petroleum-derived chemicals and 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.

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. We believe that our low-cost production capability and our development of bio-succinic derived products including 1,4 BDO and THF, which are used to produce polyesters, plastics, spandex and other products, will provide us with access to a more than US\$8 billion market opportunity.

We are working to expand our accessible markets and product portfolio. We are in discussions with several leading companies with the goal to enter into strategic relationships, and we have also entered into agreements with other companies for the supply of bio-succinic acid.

We have entered into technology partnerships to lower our production costs, expand our product portfolio and broaden 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, for the conversion of our succinic acid into 1,4 BDO and THF.

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

Our facility in Sarnia, Ontario 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 2019.

We are committed to managing our economic, social, environmental and ethical performance through sustainable business practices. We have completed a life cycle analysis for our facility in Sarnia, Ontario that indicates that no net carbon dioxide equivalent (greenhouse gases) will be emitted per kilogram of our bio-succinic acid produced, making our process carbon neutral. This is significantly less carbon emission intensive than the current petrochemical process for making succinic acid, in which 7.1 kilograms of carbon dioxide equivalent are emitted per kilogram of succinic

acid produced. This represents a 100% reduction in greenhouse gases for our bio- succinic acid process, relative to the current petrochemical process for making succinic acid. The life cycle analysis also indicates that our facility in Sarnia consumes 64% less energy than the current petrochemical process.

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We were incorporated in the State of Delaware in October 2008 as DNP Green Technology, Inc. and were established as the result of a spin-off of certain assets from Diversified Natural Products, Inc. In September 2010, we acquired the 50% interest in our joint venture Bioamber S.A.S. that we did not already own, after which, Bioamber S.A.S. became wholly owned by us. Concurrent with this acquisition, the Company changed its name from DNP Green Technology, Inc. to BioAmber Inc. and changed its fiscal year end from June 30 to December 31. Bioamber S.A.S. was wholly owned by the Company until its liquidation in December 2014.

Our principal executive offices are located at 1250 Rene Levesque West, Suite 4310, Montreal, Quebec, Canada H3B 4W8, and our principal research and development facility is located at 1000 Westgate Drive, Suite 115, St. Paul, Minnesota, United States of America, 55114. Our telephone number in the United States is (651) 641-3623 and our telephone number in Canada is (514) 844-8000. Our website address is www.bio-amber.com. We do not incorporate the information on or accessible through our website into this prospectus supplement or the accompanying prospectus, and you should not consider any information on, or that can be accessed through, our website as part of this prospectus supplement or the accompanying prospectus.

Financial Condition

Our net loss for the nine months ended September 30, 2017 was \$18.1 million, with total revenue for the nine months ended September 30, 2017 of \$9.5 million, a revenue increase of 25% compared to the nine months ended September 30, 2016. The increase in total revenue was mainly driven by an increase in succinic acid volume, slightly offset by a decrease in average selling price. We have experienced recurring operating losses and as of September 30, 2017, we had an accumulated deficit of approximately \$234.9 million. of our accumulated deficit has resulted from costs incurred in connection with our operating expenses, research and development expenses and from general and administrative costs associated with our operations, as well as our sales and marketing expenses. We expect to continue to incur substantial costs and expenses related to the continued development and expansion of our business, including those related to the development, continuation and operation of our additional manufacturing facilities, research, testing and development of new products and the growth of our sales and marketing efforts.

Net cash used in operating activities for the nine months ended September 30, 2017 was \$24.5 million. On September 30, 2017, we had cash and cash equivalents of \$10.2 million and net working capital of \$1.5 million. This compares to \$15.9 million in cash and cash equivalents and a negative net working capital of \$(6.0) million, respectively, at September 30, 2016.

BioAmber Sarnia Inc. (BioAmber Sarnia), our subsidiary, is party to a CAD \$20.0 million (Current outstanding balance of CA \$15.5 million) commercial loan agreement with Comerica Bank, Export Development Canada and Farm Credit Canada and the other parties thereto (as amended, the Loan Agreement). The Loan Agreement requires us to, among other things, maintain a minimum debt service ratio. The Loan 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.

On September 26, 2017, BioAmber Sarnia entered into a Waiver and Third Amending Agreement to Loan Agreement with Comerica Bank and the lenders party thereto (the Third Amending Agreement), which, among other things,

provided for certain waivers and modifications to the Loan Agreement. Pursuant to the Third Amending Agreement, all then-existing violations under the Loan Agreement were waived by the senior lenders thereunder. In addition, the scheduled principal payments under the Loan Agreement were suspended for the period from January 1, 2017 to December 31, 2017. The scheduled principal repayments were also modified so that the revised quarterly installment will be \$962,000 from March 31, 2018 until fully repaid in December 2021. In addition, the Third Amending Agreement modified certain financial covenants related to the debt service coverage ratio, minimum gross revenue from product sales and minimum cash balance that we are required to maintain. The Third Amending Agreement also modified certain covenants to restrict our ability to make certain royalty payments, certain enumerated payments in respect of government funding agreements and our loan with BDC Capital Inc., and payments under certain agreements with Mitsui & Co. Ltd.

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On January 25, 2018, BioAmber Sarnia entered into a Waiver and Fourth Amending Agreement to the Loan Agreement with Comerica Bank and the lenders party thereto (the Fourth Amending Agreement), which, among other things, provided for certain additional waivers and modifications to the Loan Agreement. Pursuant to the Fourth Amending Agreement, all then-existing violations under the Loan Agreement were waived by the senior lenders thereunder. In addition, our minimum cash requirements and all revenue covenants were removed, and we agreed to engage a consultant to monitor our cash flows and to provide to the lenders weekly reports on our activities and monthly financial reports. We also agreed to engage an appraiser to conduct a valuation of our Sarnia facility and equipment located there before January 31, 2018. In addition, we agreed not to make any modification resulting in an increase to any management or executive compensation arrangements, not to pay any discretionary or non-discretionary bonuses to any members of the management team or executives, nor make any payments that are not contemplated by our weekly cash flow projections. We agreed to present to the lenders a letter of intent or other legally binding commitment or agreement for a recapitalization transaction by March 15, 2018. Finally, we agreed to postpone any interest and capital payments to our subordinated lenders to the earliest to occur of December 31, 2018, the time at which our secured obligations under the Loan Agreement are paid in full, and such other date as may be agreed to by the required lenders under the Loan Agreement.

Recent Developments

On February 5, 2018, BioAmber Sarnia entered into a Waiver to the Loan Agreement with Comerica Bank and the lenders party thereto (the Waiver), which, among other things, provided for certain additional waivers to the Loan Agreement. Pursuant to the Waiver, the lenders agreed to waive our commitment to present a letter of intent or other legally binding commitment or agreement for a recapitalization transaction by March 15, 2018. The effectiveness of this Waiver is conditioned on the prior written consent of Mitsui and we can provide no assurance that such consent will be obtained on a timely manner or at all. The Company also agreed that by March 15, 2018, the Company will have raised cash in an amount sufficient to enable it to maintain its ordinary course operations until June 30, 2018. The Company further agreed that as a condition to the Waiver, by June 30, 2018, the Company will have closed a transaction, which includes an equity financing, refinancing or other investment or addition of capital, a joint venture, partnership, merger or other business combination, an asset sale, or, any combination thereof, that is acceptable to the lenders. Currently, the Company does not have any commitments or term sheets related to any such transaction, and no such transaction is pending. There can be no assurance that the Company will be able to enter into one or more transactions acceptable to the lenders.

Based on management's estimates and expectations, the Company has prepared a multi-year plan to achieve profitability and has provided that plan to the lenders in connection with the Waiver. This plan is subject to a variety of factors, many of which are not within the Company's control, including future sales, cost increases and decreases, fluctuations in oil prices, as well as the other factors listed in the section entitled Risk Factors in the Company's Annual Report on Form 10-K for the year ended December 31, 2016 and its subsequent filings with the SEC. Based on this plan, the Company expects to require approximately \$24 million for the fiscal year ending December 31, 2018, which includes capital to fund its operations and assumes all required payments of interest and principal. The Company also has plans to reduce costs at its facility and may spend up to \$10 million in capital expenditures if sufficient capital is available, although such amounts may be decreased or delayed if necessary based on the Company's available cash. The Company expects to fund these amounts from public offerings of our equity securities, private placements of our equity securities, corporate debt, government grants and/or strategic partnerships. Other than this offering, the Company does not have any commitments or term sheets related to any additional capital raising transactions and no term sheets of any kind with any prospective strategic partners. There can be no assurance that the Company will be able to raise additional funds or enter into such strategic partnerships. If the Company is unable to raise additional funds or enter into such strategic partnerships, our stockholders would likely lose most or all of their investment in us.

In light of our cash position and in accordance with the terms of the Waiver, the Company will need to seek additional capital-raising transactions to fund our operations, satisfy our existing lenders, and avoid an event of default under one or more of our debt instruments which, if not cured or waived, could give the holders of the

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defaulted indebtedness the right to terminate commitments to lend and cause all amounts outstanding with respect to the indebtedness to be due and payable immediately. If we are unable to obtain additional capital, we may not be able to sustain our future operations and satisfy our covenants with our lenders, and may be required to delay, reduce and/or cease our operations and/or seek bankruptcy protection.

Selected Risk Factors

Our business is subject to many risks and uncertainties of which you should be aware before you decide to invest in our common stock and/or warrants to purchase common stock. These risks are discussed more fully under Risk Factors in this prospectus supplement. Some of these risks are:

We do not have enough cash to fund our operations to profitability and if we are unable to secure additional capital, we may be required to seek strategic alternatives, including but not limited to a potential business combination or a sale of our company or our business, or reduce and/or cease our operations and/or seek bankruptcy protection.

Our common stock was suspended from trading and may be delisted from the NYSE. If we are unable to obtain the listing or quotation of our common stock on a United States trading market, we will be unable to consummate this offering and owners of our common stock may not have a market in which to sell the shares.

We will not be seeking the approval of the TSX in connection with this offering and it is expected that, as a result, our common stock may be delisted from the TSX.

The suspension of trading of our common stock and its pending delisting from the NYSE and potential delisting from the TSX substantially increases the difficulty of our efforts to raise capital that we need to sustain our ongoing operations.

Despite this offering, we will still require significant additional capital funding and such capital may not be available to us.

If we are unable to continue as a going concern, our securities, including those offered hereby, will have little or no value.

Our stock price has been and could remain volatile, which could further adversely affect the market price of our stock, our ability to raise additional capital and/or cause us to be subject to securities class action litigation.

Investors in this offering will experience immediate and substantial dilution.

There is no public market for the common warrants or pre-funded warrants to purchase common stock being offered in this offering.

Holders of our common warrants or pre-funded warrants will have no rights as a common stockholder until such holders exercise their warrants and acquire our common stock.

The warrants in this offering may not have any value.

Stock Exchange Delisting

On September 8, 2017, we received written notice from the NYSE, advising us that we no longer satisfied the continued listing compliance standards set forth under Rule 802.01C of the NYSE Listed Company Manual because the average closing price of our common stock fell below \$1.00 over a consecutive 30 trading-day period ending September 6, 2017.

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On February 8, 2018, the New York Stock Exchange, or NYSE, notified us that the NYSE has suspended trading in the our common stock, effective immediately, and has commenced proceedings to delist our common stock from the NYSE. The NYSE took this action when the trading price of our common stock decreased to below \$0.16 per share on February 8, 2018. The NYSE, in interpreting the continued listing standards under Section 802.01D of the NYSE's Listed Company Manual, has determined that a trading price of below \$0.16 per share is abnormally low and, therefore, is cause for suspension of trading and delisting from the NYSE. Our common stock was suspended from trading intra-day on the NYSE on February 8, 2018. The NYSE's application to the Securities and Exchange Commission to delist the Company's common stock is pending, subject to the completion of applicable procedures, including any appeal by us of the NYSE's decision.

As the NYSE has suspended trading in our common stock, this offering is not subject to the approval of the NYSE. As a consequence, we are not able to rely upon the exemption set forth in Section 602.1 of the Toronto Stock Exchange, or TSX, Company Manual, which provides that the TSX will not apply its standards to certain transactions involving eligible interlisted issuers, and the standards of the TSX will apply to this offering. Given that this offering will not be carried out in compliance with such standards, we expect that the TSX may take action to, among other things, delist our common stock from the TSX.

The suspension and pending delisting of our common stock from the NYSE, and potential delisting of our common stock from the TSX is likely to have adverse consequences including, among others: lower demand and market price for our common stock; adverse publicity; and a reduced interest in our company from investors, analysts and other market participants. In addition, a suspension or delisting is likely to impair our ability to execute on our operational and strategic goals, raise additional capital and attract and retain employees by means of equity compensation.

We intend to apply for the listing or cause the quotation of our common stock on another United States trading market. We can provide no assurance that we can obtain or maintain such listing or quotation, or that our common stock will commence trading on such marketplace (or, if commenced, continue to trade on this market), whether broker-dealers will continue to provide public quotes of the our common stock on this market, whether the trading volume of our common stock will be sufficient to provide for a liquid trading market or whether quotes for our common stock may be blocked by this market in the future.

BioAmber Sarnia Joint Venture Termination

On August 1, 2017, we entered into a Share Purchase Agreement with Mitsui pursuant to which we acquired Mitsui's entire 38.9% interest in the BioAmber Sarnia joint venture, increasing our ownership stake to 100%. Pursuant to the terms of the Share Purchase Agreement, our joint venture agreement with Mitsui was terminated and, with the exception of certain obligations which survive termination, Mitsui was released from its obligations and liabilities under the joint venture agreement. Although the joint venture agreement contained a put option which would have required us to purchase Mitsui's interest for a purchase price of 50% of Mitsui's equity in the joint venture, pursuant to the terms of the Share Purchase Agreement, the purchase price paid by BioAmber for Mitsui's 38.9% interest was CAD \$1.00. As further consideration for Mitsui's sale of its interest, we also entered into an Indemnity Agreement, dated August 1, 2017, pursuant to which BioAmber and, subject to the prior consents required to be obtained from its lenders, BioAmber Sarnia, have agreed to indemnify Mitsui for any payments made by Mitsui pursuant to its guarantee of our obligations under our Loan Agreement and our CAD \$15.0 million loan agreement with the Minister of Economic Development and Trade of Ontario, Canada (Sustainable Jobs Innovation Fund) (the SJIF Loan Agreement). We also entered into a Security Agreement, dated August 1, 2017, pursuant to which BioAmber and, subject to the prior consents required to be obtained from its lenders, BioAmber Sarnia, pledged all of their personal property as security for our obligations under the Indemnity Agreement. In addition, we have agreed with Mitsui that in the event a strategic investor acquires more than 25% of BioAmber, or any investor acquires more than 25% of

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BioAmber Sarnia, Mitsui will be released from all liability under its guarantee obligations for the Loan Agreement and the SJIF Loan Agreement. Pursuant to the Share Purchase Agreement, the members of BioAmber Sarnia's board of directors nominated by Mitsui will resign effective August 1, 2017.

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Each of the Share Purchase Agreement, the Security Agreement and the Indemnity Agreement, have been filed as Exhibits 10.1, 10.2, and 10.3 to our Current Report on Form 8-K filed with the SEC on August 3, 2017. The above descriptions of the terms of the Share Purchase Agreement, the Security Agreement and the Indemnity Agreement are qualified in their entirety by reference to such exhibits.

Bridging Finance Inc. Litigation

On February 17, 2017, a claim was filed against us by Bridging Finance Inc. (Bridging) in the Superior Court of Justice in the Province of Ontario, Canada, seeking damages for breach of contract or, alternatively, unjust enrichment or, alternatively, on the basis of quantum meruit. The claim alleges, among other things, that we failed to pay certain prepayment penalties, interest, and waiver fees to Bridging in connection with our repayment in January 2017 of our Loan Agreement, dated September 9, 2016, with Bridging. The action seeks damages in the amount of approximately CAD\$922,000, plus prejudgment and post judgment interest, costs of the proceedings and other relief as the court may provide. On or about April 17, 2017, we filed our Statement of Defence with the Superior Court. We believe that the suit is without merit and intend to vigorously defend it.

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THE OFFERING

*The following is a brief summary of some of the terms of the offering and is qualified in its entirety by reference to the more detailed information appearing elsewhere in this prospectus supplement and the accompanying prospectus. For a more complete description of the terms of our common stock, the common warrants and the pre-funded warrants, see the *Description of Securities* section in this prospectus supplement and the *Description of Capital Stock* section in the accompanying prospectus.*

Common stock we are offering	shares.
Common stock to be outstanding after this offering	shares (as more fully described in the notes following this table).
Common warrants we are offering	<p>We are offering Series A common warrants to purchase shares of common stock. Each full Series A common warrant will entitle the holder to purchase one share of common stock. Each Series A common warrant will have an exercise price of \$0.15 per share (subject to adjustment as set forth therein) and will be exercisable during the period commencing on the date of original issuance and ending on August , 2018, the expiration date of the Series A common warrants.</p> <p>We are also offering Series B common warrants to purchase shares of common stock. Each full Series B common warrant will entitle the holder to purchase one share of common stock. Each Series B common warrant will have an exercise price of \$0.15 per share (subject to adjustment as set forth therein) and will be exercisable during the period commencing on the date of original issuance and ending on February , 2023, the expiration date of the Series B common warrants.</p> <p>We are also offering Series C common warrants to purchase that number of shares of common stock as set forth therein. Each Series C common warrant will have an exercise price of \$0.00001 per share (subject to adjustment as set forth therein) and will be exercisable during the period commencing on the date of original issuance and will be exercisable until the Series C common warrant is exercised in full.</p>

This prospectus supplement also relates to the offering of the shares of common stock issuable upon exercise of the common warrants. The common warrants and shares of common stock underlying the common warrants have been registered under our registration statement on Form S-3 of which this prospectus supplement and the accompanying prospectus forms a part. There is currently no market for the common warrants and none is expected to develop after this offering. We do not intend to list the common warrants on any national securities exchange or other trading market. See Description of Securities for additional information.

Pre-funded warrants we are offering

We are also offering to those investors whose purchase of shares of common stock in this offering would result in the investor, together with its affiliates and certain related parties, beneficially owning more than 4.99% of our outstanding common stock following the consummation of this offering the opportunity to purchase, in lieu of shares of our common stock, pre-funded warrants to purchase up to _____ shares of our common stock. Each full pre-funded warrant will entitle

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the holder to purchase one share of common stock. Each pre-funded warrant will have an exercise price of \$0.15 per share, will be immediately exercisable and will be exercisable until the pre-funded warrant is exercised in full. The exercise price of \$0.15 per share will be pre-paid, except for a nominal exercise price of \$0.001 per share of common stock, upon issuance of the pre-funded warrants and, consequently, no additional payment or other consideration (other than the nominal exercise price of \$0.001 per share) will be required to be delivered to us by the holder upon exercise. This prospectus supplement also relates to the offering of the shares of common stock issuable upon exercise of the pre-funded warrants. The pre-funded warrants and shares of common stock underlying the pre-funded warrants have been registered under our registration statement on Form S-3 of which this prospectus supplement and the accompanying prospectus forms a part. There is currently no market for the pre-funded warrants and none is expected to develop after this offering. We do not intend to list the pre-funded warrants on any national securities exchange or other trading market. See Description of Securities for additional information.

Limitation on exercise of warrants

A holder will not have the right to exercise any portion of the common warrants or pre-funded warrants if the holder (together with its affiliates) would beneficially own in excess of 4.99% of the number of shares of common stock outstanding immediately after giving effect to the exercise, as such percentage ownership is determined in accordance with the terms of the warrants. However, any holder may increase or decrease such percentage to any other percentage not in excess of 9.99%, in either case at the option of the holder; provided that, any increase will only be effective upon 61-days prior notice from the holder to us.

The issuance of common stock upon exercise or conversion of the warrants may not exceed the then-authorized number of shares of common stock under our certificate of incorporation, less the number of shares of common stock then outstanding or reserved for issuance upon exercise or conversion of other convertible securities that are then outstanding.

Such limit may be increased by procuring any necessary increase in the number of our authorized shares of common stock or reducing the number of outstanding shares of common stock, including through a reverse split of our common stock. However, there can be no assurance that we may be able to obtain such increase in our authorized common stock or reduction in the number of our outstanding common stock, each of which requires, among other things, one or more amendments to our certificate of incorporation approved by our stockholders.

Trading Market

On February 8, 2018, the NYSE announced that it suspended trading in our common stock and that it would commence proceedings to delist our common stock from the NYSE. As the NYSE has suspended trading in our common stock, this offering is not subject to the approval of the NYSE. As a consequence, we are not able to rely upon the exemption set forth in Section 602.1 of the TSX Company Manual, which provides that the TSX will not apply its standards to certain transactions involving eligible interlisted issuers, and the standards of the TSX will apply to this offering. Given that this offering will not be carried out in compliance with such standards, we expect that the TSX may take action to, among other things, delist our common stock from the TSX.

The closing of this offering is subject to customary closing conditions, and the quotation of our common stock on a United States trading market, including the OTCBB, OTCQB or the Pink Sheets. We intend to cause for the quotation of our common stock on the OTCQB marketplace. We will seek a market maker to file a Rule 211 application with the Financial Industry Regulatory Authority (FINRA) in order to apply for the inclusion of our common stock in the OTCQB marketplace; however, such efforts may not be successful and we may be unable to consummate this offering, and shares of our common stock may never be quoted and owners of our common stock may not have a market in which to sell the shares. Also, no estimate may be given as to the time that this application process will require.

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Use of proceeds	We estimate that the net proceeds from this offering will be approximately \$ million, after deducting estimated placement agent fees and estimated offering expenses payable by us. We intend to use the net proceeds from this offering for working capital and other general corporate purposes. See Use of Proceeds.
Risk factors	Investing in our securities involves significant risks. Please read the information contained in or incorporated by reference under the heading Risk Factors beginning on page S-12 of this prospectus supplement, and under similar headings in other documents filed after the date hereof and incorporated by reference into this prospectus supplement and the accompanying prospectus.

The number of shares of common stock shown above to be outstanding after this offering is based on 52,114,923 shares outstanding as of September 30, 2017 and excludes:

6,865,543 shares of our common stock issuable upon the exercise of stock options outstanding as of September 30, 2017, at a weighted average exercise price of \$5.94 per share;

659,650 shares of our common stock reserved for future issuance under our equity incentive plans as of September 30, 2017;

17,707,880 shares of our common stock issuable upon the exercise of warrants outstanding as of September 30, 2017, at a weighted average exercise price of \$1.43 per share; and

shares of our common stock issuable upon the exercise of common warrants and the pre-funded warrants offered hereby. Investors should note that the Series C Warrants may be exercisable into a number of shares that is not determinable at the date of this prospectus, as such number depends upon the future price of our common stock.

Unless otherwise stated, all information contained in this prospectus supplement assumes no exercise of the common warrants and pre-funded warrants sold in this offering.

Table of Contents**SUMMARY CONSOLIDATED FINANCIAL DATA SUMMARY CONSOLIDATED FINANCIAL DATA**

The following tables set forth summary financial data and other operating information of our company. The summary consolidated statements of operations data for the years ended December 31, 2014, 2015 and 2016 and the consolidated balance sheet data as of December 31, 2016 as set forth below are derived from our audited consolidated financial statements included in our Annual Report on Form 10-K for the fiscal year ended December 31, 2016 and incorporated by reference herein. The summary consolidated statements of operations data for the nine months ended September 30, 2016 and 2017 and the consolidated balance sheet data as of September 30, 2017 have been derived from our unaudited consolidated financial statements included in our Quarterly Report on Form 10-Q for the nine months ended September 30, 2017 and incorporated by reference herein. These unaudited financial statements have been prepared on a basis consistent with our audited financial statements and, in the opinion of management, reflect all adjustments, consisting only of normal and recurring adjustments, necessary for a fair presentation of such financial data. The information is only a summary and you should read it in conjunction with our audited consolidated financial statements, including the related notes, and other financial information and Management's Discussion and Analysis of Financial Condition and Results of Operations included in our Annual Report on Form 10-K for the fiscal year ended December 31, 2016 and incorporated by reference herein and the Quarterly Report on Form 10-Q for the fiscal quarter ended September 30, 2017 and incorporated by reference herein. Historical results are not necessarily indicative of the results for future periods.

Consolidated Statements of Operations Data*:

	Nine Months Ended September 30, 2017	Nine Months Ended September 30, 2016	Year Ended December 31, 2016	Year Ended December 31, 2015	Year Ended December 31, 2014
	(in thousands, except share and per share data)				
Revenues					
Product sales	\$ 9,547	\$ 7,641	\$ 8,272	\$ 2,172	\$ 1,543
Cost of goods sold (excluding depreciation and amortization)	15,823	11,578	13,667	2,613	6,044
Operating expenses					
General and administrative	10,126	7,376	9,458	10,594	10,655
Research and development, net(1)	4,289	5,145	7,195	20,286	15,156
Sales and marketing	1,660	2,219	2,915	4,002	4,482
Depreciation of property and equipment and amortization of intangible assets	3,778	3,600	4,843	1,080	260
Impairment loss and write-off of intangible assets				1,141	
Foreign exchange loss	376	117	(176)	984	151
Operating expenses	20,229	18,457	24,235	38,087	30,704
Operating loss	(26,505)	(22,394)	(29,630)	(38,528)	(35,205)
Amortization of deferred financing costs and debt discounts	1,943	2,478	3,312	1,079	292

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Financial charges (income), net	(9,405)	(4,660)	(750)	1,589	11,789
Grant income		(4,047)	(4,047)		
Loss (gain) on debt extinguishment	(745)				171
Equity participation in losses of equity method Investments	\$	\$	\$	\$ 1	\$
Other (income) expense, net	(229)	138	200	(22)	(183)
Loss before income taxes	(18,069)	(16,303)	(28,345)	(41,175)	(47,274)
Income taxes	48	19	26	(4)	75
Net loss	(18,117)	(16,322)	(28,371)	(41,171)	(47,349)

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	Nine Months Ended September 30, 2017	Nine Months Ended September 30, 2016	Year Ended December 31, 2016	Year Ended December 31, 2015	Year Ended December 31, 2014
(in thousands, except share and per share data)					
Net loss attributable to:					
BioAmber Inc. stockholders	\$ (14,082)	\$ (12,293)	\$ (22,478)	\$ (37,226)	\$ (46,474)
Non-controlling interest	(4,035)	(4,029)	(5,893)	(3,945)	(875)
	\$(18,117)	\$(16,322)	\$(28,371)	\$(41,171)	\$(46,474)
Net loss per share attributable to BioAmber Inc.					
stockholders basic(2)	\$ (0.37)	\$ (0.43)	\$ (0.78)	\$ (1.52)	\$ (2.32)
Weighted-average of common stock outstanding basic	38,521,825	28,592,360	28,665,645	24,499,970	20,016,180

Consolidated Balance Sheet Data (in thousands):

	As of September 30, 2017	As of December 31, 2016
Cash	\$ 10,228	\$ 16,160
Working capital	1,502	(13,883)
Total assets	155,515	161,330
Long-term debt, including current portion	37,198	52,331
Total liabilities	48,727	75,324
Accumulated deficit	(234,850)	(220,768)
Stockholders equity	\$ 106,789	\$ 48,491

* Slight variations in totals due to rounding.

- (1) Research and development expenses include certain start-up and commissioning costs related to our Sarnia facility and are net of research and development tax credits.
- (2) We have incurred losses in each of those periods. Accordingly, diluted loss per share is not presented.

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RISK FACTORS

*Investing in our securities involves a high degree of risk. In addition to the other information contained in this prospectus supplement to the accompanying prospectus and in the documents we incorporate by reference, you should carefully consider the risks discussed below and under the heading **Item 1A. Risk Factors** in our Annual Report on Form 10-K for the fiscal year ended December 31, 2016 and our Quarterly Report on Form 10-Q for the quarter ended September 30, 2017 before making a decision about investing in our securities. The risks and uncertainties discussed below and in our Annual Report on Form 10-K for the fiscal year ended December 31, 2016 and our Quarterly Report on Form 10-Q for the quarter ended September 30, 2017 are not the only ones facing us. Additional risks and uncertainties not presently known to us may also harm our business. If any of these risks occur, our business, financial condition and operating results could be harmed, the trading price of our common stock could decline and you could lose part or all of your investment.*

Risks Related to this Offering and Our Common Stock, the Common Warrants and the Pre-Funded Warrants

We have a limited operating history, a history of losses, anticipate continuing to incur losses for a period of time, and may never achieve or sustain profitability.

We have only been in existence since October 2008 and, therefore, we have a limited operating history upon which you can base your evaluation of our business. As a result, any assessments of our current business and predictions you make about our future success or viability may not be as accurate as they could have been if we had a longer operating history. Since our inception, we have incurred substantial net losses, including net losses of \$28.4 million for the year ended December 31, 2016, \$41.2 million for the year ended December 31, 2015, and \$47.4 million for the year ended December 31, 2014. We expect these losses to continue. We expect to continue to incur substantial costs and expenses related to the continued development and expansion of our business, including those related to the development, continuation and operation of our additional manufacturing facilities, research, testing and development of new products and the growth of our sales and marketing efforts. We will need to generate and sustain increased revenues in future periods in order to become profitable. We cannot assure you that we will ever achieve or sustain profitability on a quarterly or annual basis. As of September 30, 2017, we had positive working capital of \$1.5 million, an accumulated deficit of \$234.9 million. We also had negative operating cash flows of \$24.5 million for the nine months ended September 30, 2017. There can be no guarantee that our actual cash outflows will align with this expectation. If cash outflows are greater than currently expected, we may need to seek additional financing, the availability of which cannot be guaranteed.

We do not have enough cash to fund our operations to profitability and if we are unable to secure additional capital, we may be required to seek strategic alternatives, including but not limited to a potential business combination or a sale of our company or our business, or reduce and/or cease our operations.

We have experienced recurring operating losses and as of September 30, 2017, we had an accumulated deficit of approximately \$234.9 million. Substantially all of our accumulated deficit has resulted from costs incurred in connection with our operating expenses, research and development expenses and from general and administrative costs associated with our operations, as well as our sales and marketing expenses. We expect to continue to incur substantial costs and expenses related to the continued development and expansion of our business, including those related to the development, continuation and operation of our additional manufacturing facilities, research, testing and development of new products and the growth of our sales and marketing efforts. On September 30, 2017, we had cash and cash equivalents of \$10.2 million and net working capital of \$1.5 million. This compares to \$15.9 million in cash and cash equivalents and a negative net working capital of \$24.5 million, respectively, at September 30, 2016. Further, we expect that based on our internal cash flow projections, current cash position and current financial covenants, we

will exceed our available cash in . Assuming we receive the estimated net proceeds of approximately \$ million in this offering, after deducting placement agent fees and estimated offering expenses, we expect that we will have sufficient cash to continue our operations into of 2018. In light of our cash position, we may be required to seek strategic alternatives, including but not limited to, strategic partnerships, a potential business combination or a sale of our company or our business.

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Although we have raised additional capital since December 31, 2016 through other public offerings of our equity securities, if we are unable to generate additional funds in the future through financings, sales of our products, government grants, loans or from other sources or transactions, we will exhaust our resources and will be unable to maintain our currently planned operations. We anticipate incurring substantial additional losses and may never achieve profitability. Additionally, even if we raise sufficient capital through equity or debt financing, strategic alliances or otherwise, there can be no assurances that the revenue or capital infusion will be sufficient to enable us to develop our business to a level where it will be profitable or generate positive cash flow.

Despite this offering, we will still require significant additional capital funding and such capital may not be available to us.

Assuming we receive the estimated net proceeds of approximately \$ million in this offering, after deducting placement agent fees and estimated offering expenses, we expect that we will have sufficient cash to continue our operations into of 2018. This projection is based on our current expectations regarding product sales, cost structure, cash burn rate and operating assumptions. In the event that our operating expenses are higher than anticipated or our gross margins and production level do not increase as we expect, we may be required to implement contingency plans within our control to conserve and/or enhance our liquidity to meet operating needs. Such plans include: our ability to further reduce discretionary expenses and obtain additional funding from licensing the use of our technologies. Our cash requirements relate primarily to working capital needed to operate and grow our business, including funding operating expenses, growth in production, and continued development and expansion of our products.

Our continuation as a going concern is dependent on our ability to generate sufficient cash flows from operations and to raise additional capital to meet our obligations. Based on our current operating plan, we anticipate that the net proceeds from our public offerings, a combination of government grants, interest bearing and interest-free loans and our existing cash and cash equivalents, may not be sufficient to enable us to maintain our currently planned operations. We have no additional committed external sources of funds and additional financing may not be available when we need it or may not be available on terms that are favorable to us.

We cannot assure you that we would be able to take any of these actions or that any effort to sell additional debt or equity securities would be successful or would raise sufficient funds to meet our financial obligations or finance additional facilities or that these actions would be permitted under the terms of our existing or future debt agreements. If additional financing is not available when required or is not available on acceptable terms, we may need to delay, modify or abandon our expansion strategy and we may be unable to take advantage of business opportunities or respond to competitive pressures, which could have a material adverse effect on our offerings, revenue, results of operations and financial condition. If we are unable to fund our operations without additional external financing and therefore cannot sustain future operations, we may be required to delay, reduce and/or cease our operations and/or seek bankruptcy protection.

The NYSE has suspended trading of our common stock and commenced proceedings to delist our common stock, which could result in adverse consequences.

On February 8, 2018, the New York Stock Exchange, or NYSE, notified us that the NYSE has suspended trading in the our common stock, effective immediately, and has commenced proceedings to delist our common stock from the NYSE. The NYSE took this action when the trading price of our common stock decreased to below \$0.16 per share on February 8, 2018. The NYSE, in interpreting the continued listing standards under Section 802.01D of the NYSE's Listed Company Manual, has determined that a trading price of below \$0.16 per share is abnormally low and, therefore, is cause for suspension of trading and delisting from the NYSE. Our common stock was suspended from

trading intra-day on the NYSE on February 8, 2018. The NYSE's application to the Securities and Exchange Commission to delist the Company's common stock is pending, subject to the completion of applicable procedures, including any appeal by us of the NYSE's decision.

As the NYSE has suspended trading in our common stock, this offering is not subject to the approval of the NYSE. As a consequence, we are not able to rely upon the exemption set forth in Section 602.1 of the Toronto Stock Exchange, or TSX, Company Manual, which provides that the TSX will not apply its standards to certain transactions involving eligible interlisted issuers, and the standards of the TSX will apply to this offering. Given that this offering will not be carried out in compliance with such standards, we expect that the TSX may take action to, among other things, delist our common stock from the TSX.

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The suspension and pending delisting of our common stock from the NYSE, and potential delisting of our common stock from the TSX is likely to have adverse consequences including, among others: lower demand and market price for our common stock; adverse publicity; and a reduced interest in our company from investors, analysts and other market participants. In addition, a suspension or delisting could impair our ability to execute on our operational and strategic goals, raise additional capital and attract and retain employees by means of equity compensation. For these reasons and others, delisting could have a material adverse effect on our business, prospects, financial condition and results of operations.

Although we intend to cause the quotation of our common stock on the OTCQB marketplace, we cannot guarantee that a market maker's application will be accepted or approved and our stock listed and quoted for sale. If we fail to have our common stock quoted on a public trading market, your shares of common stock will not have a quantifiable value and it may be difficult, if not impossible, to ever resell your shares, resulting in an inability to realize any value from your investment.

We intend to cause a market maker to apply for the listing or quotation of our common stock on another United States trading market, the OTCQB marketplace. We can provide no assurance that we can obtain or maintain such listing or quotation, or that our common stock will commence trading on such marketplace (or, if commenced, continue to trade on this market), whether broker-dealers will continue to provide public quotes of the our common stock on this market, whether the trading volume of our common stock will be sufficient to provide for a liquid trading market or whether quotes for our common stock may be blocked by this market in the future.

If we fail to have our common stock quoted on a public trading market, we will be unable to consummate this offering. In addition, your shares of common stock will not have a quantifiable value and it may be difficult, if not impossible, to ever resell your shares, resulting in an inability to realize any value from your investment.

Our stock price has been and could remain volatile, which could further adversely affect the market price of our stock, our ability to raise additional capital and/or cause us to be subject to securities class action litigation.

The market price of our common stock has historically experienced and may continue to experience significant volatility. Between June 10, 2013 (the date our common stock commenced trading) and February 7, 2018, the sales price of our common stock as reported on the NYSE has fluctuated from a high of \$15.29 per share to a low of \$0.17. On February 8, 2018, the NYSE notified us that the NYSE has suspended trading in our common stock, effective immediately, and has commenced proceedings to delist the stock from the NYSE. Our start of commercial operations of our Sarnia facility, our ability to commence commercial sales and execute on our commercial expansion plan, our quarterly operating results, our perceived prospects, changes in securities analysts' recommendations or earnings estimates and our ability to meet such estimates, changes in general conditions in the economy or the financial markets, adverse events related to our strategic relationships, significant sales of our common stock by existing stockholders, and other developments affecting us or our competitors could cause the market price of our common stock to fluctuate substantially. In addition, in recent years, the stock market has experienced significant price and volume fluctuations. This volatility has affected the market prices of securities issued by many companies for reasons unrelated to their operating performance and may adversely affect the price of our common stock. Such market price volatility could adversely affect our ability to raise additional capital.

In addition, we may be subject to securities class action litigation as a result of volatility in the price of our common stock. On March 18, 2017, a putative securities class action was filed against us in the United States District Court for the Eastern District of New York. This action is still pending and there can be no assurance that we will prevail or that such actions will not require us to pay significant damages or a substantial settlement or expend significant resources in our defense. Moreover, there can be no assurance that other securities class actions will not be filed against us in the

future. Securities litigation could result in substantial costs and diversion of management's attention and resources and could harm our stock price, business, prospects, results of operations and financial condition.

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There is no public market for the common warrants or the pre-funded warrants to purchase common stock being offered in this offering.

There is no established public trading market for the common warrants or the pre-funded warrants being offered in this offering, and we do not expect a market to develop. In addition, we do not intend to apply for listing of the common warrants or the pre-funded warrants on any national securities exchange or other trading market. Without an active market, the liquidity of the common warrants or pre-funded warrants will be limited.

Holders of our common warrants and pre-funded warrants will have no rights as a common stockholder until such holders exercise their warrants and acquire our common stock.

Until you acquire shares of our common stock upon exercise of your common warrants or pre-funded warrants, you will have no rights with respect to the shares of our common stock underlying such warrants. Upon exercise of your common warrants or pre-funded warrants, you will be entitled to exercise the rights of a common stockholder only as to matters for which the record date occurs after the exercise date.

Holders of our warrants may be limited in their ability to exercise their warrants for shares of our common stock.

The issuance of common stock upon exercise or conversion of the warrants may not exceed the then-authorized number of shares of common stock under our certificate of incorporation, less the number of shares of common stock then outstanding or reserved for issuance upon exercise or conversion of other convertible securities that are then outstanding. Such limit may be increased by procuring any necessary increase in the number of our authorized shares of common stock or reducing the number of outstanding shares of common stock, including through a reverse split of our common stock. However, there can be no assurance that we may be able to obtain such increase in our authorized common stock or reduction in the number of our outstanding common stock, each of which requires, among other things, one or more amendments to our certificate of incorporation approved by our stockholders.

The common warrants may never have any value.

The Series A common warrants comprising part of the Units being sold in this offering, which have an exercise price of \$0.15 per whole share of common stock, will expire on August , 2018. The Series B common warrants comprising part of the Units being sold in this offering, which have an exercise price of \$0.15 per whole share of common stock, will expire on February , 2023. In the event our common stock price does not exceed the per share exercise price of such common warrants during the applicable period in which such common warrants are exercisable, the common warrants will not have any value.

The market price of our common stock may be adversely affected by market conditions affecting the stock markets in general.

Market conditions may result in volatility in the level of, and fluctuations in, market prices of stocks generally and, in turn, our common stock and sales of substantial amounts of our common stock in the market, in each case being unrelated or disproportionate to changes in our operating performance. Concerns over global stability and economic conditions in the United States and abroad have contributed to the extreme volatility of the markets which may have an effect on the market price of our common stock.

Future sales of common stock or warrants by existing stockholders could cause our stock price to decline and adversely impact the trading price of our common stock.

If our existing stockholders sell, or indicate an intent to sell, substantial amounts of our common stock or warrants in the public market, the trading price of our common stock or warrants could decline significantly and may be adversely impacted. We cannot predict the effect, if any, that future public sales of these securities or the availability of these securities for sale will have on the market and trading price of our securities. Holders of _____ shares of our common stock, including the shares of common stock issuable upon exercise of our stock options and all outstanding warrants, have the right to require us to register these shares under the Securities Act pursuant to a stockholders agreement. If our existing stockholders sell substantial amounts of our common stock or warrants in the public market, or if the public perceives that such sales could occur, this could have an adverse impact on the market and trading price of our securities, even if there is no relationship between such sales and the performance of our business.

In the future, we may sell additional shares of our common stock to raise capital or issue stock in connection with acquisitions. In addition, a substantial number of shares of our common stock are reserved for issuance upon the exercise of warrants, stock options and the vesting of restricted stock awards. We cannot predict the size of future issuances or the effect, if any, that they may have on the market price for our common stock. The issuance and sale of substantial amounts of common stock, or the perception that such issuances and sales may occur, could adversely affect the market price of our common stock or warrants and impair our ability to raise capital through the sale of additional equity securities.

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You will experience immediate and substantial dilution in the net tangible book value per share of the common stock you purchase.

Since the offering price per Unit of the securities being offered is substantially higher than the net tangible book value per share of our common stock, you will suffer substantial dilution in the net tangible book value of the common stock you purchase in this offering. Based on the offering price of \$0.15 per Series A Unit and \$0.149 per Series B Unit, and attributing no value to the common warrants offered in this offering, if you purchase shares of common stock in this offering, you will suffer immediate and substantial dilution of \$ per share in the net tangible book value of the common stock. In the event that you exercise your common warrants, you will experience additional dilution to the extent that the exercise price of those warrants is higher than the book value per share of our common stock. See the section entitled **Dilution** below for a more detailed discussion of the dilution you would incur if you purchase securities in this offering.

Our financial results could vary significantly from quarter to quarter and are difficult to predict.

Our quarterly operating results may fluctuate significantly in the future. As a result of these fluctuations, we may fail to meet or exceed the expectations of research analysts covering our company or of investors, which could cause the market price of our securities to decline. Future quarterly fluctuations, many of which are beyond our control, may result from a number of factors, including but not limited to:

the impact of the termination of our joint venture with Mitsui & Co. Ltd., or Mitsui, on our ability to maintain and expand our operations at our Sarnia, Ontario facility;

the timing and cost associated with the construction of our additional planned manufacturing facilities;

the level and timing of expenses for product development and sales, general and administrative expenses;

delays or greater than anticipated expenses associated with the scale-up and the commercialization of chemicals produced using our processes;

our ability to successfully enter into or maintain partnering arrangements, and the terms of those relationships;

commercial success with our existing product and success in identifying and sourcing new product opportunities;

the development of new competitive technologies or products by others and competitive pricing pressures;

fluctuations in the prices or availability of the feedstocks required to produce chemicals using our processes or those of our competitors;

changes in demand for our products, including any seasonal variations in demand;

changes in product development costs due to the achievement of certain milestones under third-party development agreements;

changes in the amount that we invest to develop, acquire or license new technologies and processes;

business interruptions, including disruptions in the production process at any facility where chemicals produced using our processes are manufactured as well as a result of changes in the technologies we employ;

departures of executives or other key management employees;

foreign exchange fluctuations;

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changes in general economic, industry and market conditions, both domestically and in our foreign markets;
and

changes in governmental, accounting and tax rules and regulations, environmental, health and safety requirements, and other rules and regulations.

Based on the above factors and other uncertainties, we believe our future operating results will vary significantly from quarter-to-quarter and year-to-year. As a result, quarter-to-quarter and year-to-year comparisons of operating results are not necessarily meaningful nor do they indicate what our future performance will be.

Our financial obligations are expected to continue to be substantial, and we may not obtain the additional financing we need in order to grow our business, develop or enhance our products or respond to competitive pressures.

We will need to raise additional funds in the future in order to grow our business. Any required additional financing may not be available on terms acceptable to us, or at all. Our ability to secure financing and the cost of raising such capital are dependent on numerous factors, including general economic and capital markets conditions, credit availability from lenders, investor confidence and the existence of regulatory and tax incentives that are conducive to raising capital. Current turmoil and uncertainty in the financial markets has caused banks and financial institutions to decrease the amount of capital available for lending to unprofitable companies such as ours, and has significantly increased the risk premium of such borrowings. In addition, such turmoil and uncertainty has significantly limited the ability of companies to raise funds through the sale of equity or debt securities. If we are unable to raise additional funds, obtain capital on acceptable terms, secure government grants or co-sponsorships for some of our projects or take advantage of federal and state incentive programs to secure favorable financing, we may have to delay, modify or abandon some or all of our expansion strategies.

Our ongoing operations may require us and/or our subsidiaries to raise additional funds. We may enter into agreements that may require us to expend significant financial resources during the term of such agreements. For example, we recently entered into a non-assertion agreement with Mitsubishi Chemical Corporation, pursuant to which we will be required to pay minimum annual royalties in exchange for their not asserting their patent rights. If we raise funds through the issuance of debt, the amount of any indebtedness that we may raise in the future may be substantial, and we may be required to secure such indebtedness with our assets and may have substantial interest expenses. If we default on any future indebtedness, our lenders could declare all outstanding principal and interest to be due and payable and our secured lenders may foreclose on the facilities securing such indebtedness. The incurrence of indebtedness could require us to meet financial and operating covenants, which could place limits on our operations and ability to raise additional capital, decrease our liquidity and increase the amount of cash flow required to service our debt. In addition, if we experience production problems or delays in sales that adversely affect our ability to generate revenues, we may not be able to fund principal or interest payments under any debt that we may incur. The issuance of additional equity securities could result in dilution to our stockholders and the newly-issued securities may have rights senior to those of the holders of our common stock.

Our continuation as a going concern is dependent on our ability to generate sufficient cash flows from operations and to raise additional capital to meet our obligations. Based on our current operating plan, we anticipate that the net proceeds from our public offerings, a combination of government grants, interest bearing and interest-free loans and our existing cash and cash equivalents, may not be sufficient to enable us to maintain our currently planned operations. We have no additional committed external sources of funds and additional financing may not be available when we need it or may not be available on terms that are favorable to us.

Our ability to execute our business plan is dependent on our ability to generate sufficient cash flows from operations, raise additional capital or refinance our indebtedness to meet our obligations. If adequate funds are not available to us on a timely basis, or at all, we may be unable to fund our debt service obligations and be required to reduce or delay operating and capital expenses as deemed appropriate in order to conserve cash.

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We cannot assure you that we would be able to take any of these actions or that any effort to sell additional debt or equity securities would be successful or would raise sufficient funds to meet our financial obligations or finance additional facilities or that these actions would be permitted under the terms of our existing or future debt agreements. If additional financing is not available when required or is not available on acceptable terms, we may need to delay, modify or abandon our expansion strategy and we may be unable to take advantage of business opportunities or respond to competitive pressures, which could have a material adverse effect on our offerings, revenue, results of operations and financial condition.

If we are unable to continue as a going concern, our securities, including those offered hereby, will have little or no value.

Our continuation as a going concern is dependent on our ability to generate sufficient cash flows from operations and to raise additional capital to meet our obligations. Specifically, we have incurred substantial net losses since our inception and we expect those losses to continue for the foreseeable future. These prior losses and expected future losses have had, and will continue to have, an adverse effect on our financial condition. In addition, our ongoing operations may require us and/or our subsidiaries to raise additional funds, and there are no assurances that such financing will be available on terms acceptable to us, or at all. Our financial statements do not include any adjustments that may result from the outcome of this uncertainty. Although we have raised additional capital since December 31, 2016 through other public offerings of our equity securities, if we are unable to generate additional funds in the future through financings, sales of our products, government grants, loans or from other sources or transactions, we will exhaust our resources and will be unable to maintain our currently planned operations. If we cannot continue as a going concern, our stockholders would likely lose most or all of their investment in us.

The termination of our joint venture with Mitsui may result in additional financial obligations and a number of other challenges that could have a material adverse effect on our business, financial condition and results of operations.

On August 1, 2017, our joint venture joint venture agreement with Mitsui was terminated and, as a result, Mitsui will no longer fund any portion of the operations at our Sarnia facility. As a result, we will need to find alternative sources of capital to carry out our activities at the Sarnia facility, which may only be available on less favorable terms. The failure to identify acceptable alternative financing could prevent us from meeting our goal of reaching full production capacity at the Sarnia facility towards the end of 2018 or at all. If we decide to seek out a new joint venture partner or partners to help finance our Sarnia facility, any new joint venture agreement we may enter into could present financial, managerial and operational challenges, including potential disputes with any new joint venture partner, additional liabilities or contingencies and other risks that would not otherwise be present if we developed the Sarnia facility alone. Any disruptions in ramping up our commercial operations at the Sarnia facility and meeting the expectations of our customers could have a material adverse effect on our results of operations.

In addition, in connection with the termination of the BioAmber Sarnia joint venture, we agreed to indemnify Mitsui for any payments it makes pursuant to its guarantees under the Loan Agreement and the SJIF Loan Agreement. Any payments we make pursuant to our indemnification obligations to Mitsui may divert a significant amount of money that we could otherwise use to expand our Sarnia facility and achieve our strategic objectives.

To achieve profitability, we need to execute our manufacturing expansion strategy, including the ramp up of our facility in Sarnia, Ontario.

We are currently ramping up our first facility in Sarnia, Ontario. We expect this facility to be operating at full capacity towards the end of 2018. We intend to build and operate additional facilities over the next three to five years. We have

limited experience in operating a commercial-scale production facility, and our technology may not perform as expected in future plants. There is no guarantee that our Sarnia facility will produce at full capacity and even if we do meet these goals, we may encounter operational challenges for which we are unable to devise a workable solution or which may result in additional costs. To date, we have entered into agreements that contemplate, but do not obligate, us to supply approximately 23,000 MT of bio-succinic acid and its derivatives per year until the end of 2019, and we are actively seeking to enter into additional supply agreements. Some of these supply agreements obligate our customers to exclusively fulfill their needs for bio-succinic acid from us, contingent on our ability to meet their price and other requirements; however, there are no penalties in the event they do not purchase or we do not supply them with bio-succinic acid in the projected purchase volumes they have indicated in the agreements. Without increasing our production capacity by completing future facilities, we may not be able to meet the demands of our customers and our customer relationships and commercialization growth may suffer.

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We began operations at our facility in Sarnia, Ontario in October 2015 and we may encounter substantial difficulties in ramping up commercial operations and meeting the expectations of our customers. Because we produce all of our products at our single facility, any disruptions or delays may have a material adverse effect on our business, financial condition and results of operations.

We began commissioning and start-up of our Sarnia facility in March 2015, and started operations in October 2015. Because our facility is the first of its kind, none of our employees have had any prior experience in its operation. As a result, we may experience unforeseen challenges and difficulties and, until the operations stabilize and we obtain more experience operating a commercial scale facility, the Sarnia facility may be more susceptible to start-ups, shutdowns, quality issues, or other delays or disruptions. For example, in the first months of operations at the Sarnia facility, the plant encountered some operational inefficiencies related to human errors, equipment adjustments and minor equipment failures. We cannot know with certainty when or if we will achieve optimized operations. The skills and knowledge gained in operating our large-scale demonstration facility in Pomacle, France may prove insufficient for successful operation of a larger-scale commercial facility, and we may be required to expend significant time and resources to develop our capabilities in commercial facility operations. We may also need to hire new employees or contract with third parties to help manage our operations, and our performance may suffer if we are unable to hire qualified parties or if they perform poorly.

Our operations at our Sarnia, Ontario facility may be adversely affected by changes and events, including the following:

loss of key talent, including technical and administrative personnel, in operating the facility;

failure to maintain or timely renew regulatory approvals, including environmental;

issues with the quality of our products produced at the facility;

shortages or changes in the price of equipment, materials or labor and related budget overruns;

adverse changes in the political and/or regulatory environment;

adverse weather conditions or natural disasters, accidents or other unforeseen events;

insufficient capital to continue operations at the facility and the inability to obtain additional financing on satisfactory terms or at all;

workplace health and safety issues at the facility;

costs associated with the external processing of our co-products;

issues associated with our environmental emissions, effluents, air and noise; and

failure of a key piece of equipment, particularly one with long lead time delivery.

Currently, our only production site is our Sarnia facility. As a result, significant and prolonged disruptions at the facility would have a material adverse effect on our business, financial condition and results of operations. Our operations also may be disrupted by external events such as natural disasters, severe weather conditions, workplace or environmental accidents, mechanical failure, fires, explosions, interruptions of supply, work stoppage, losses of permits or authorizations or acts of terrorism. Some of these events can cause personal injury and loss of life, severe damage to or destruction of property and equipment and environmental damage, and may result in suspension or cessation of operations and the imposition of civil or criminal penalties. Our facilities and the manufacturing equipment we use would be very costly to replace and could require substantial lead time to repair or replace. In

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addition, telecommunications failures or other systems interruptions, such as computer viruses or other cyber-attacks, at any of the locations in which we do business could significantly disrupt our operations, laboratory processes and delay shipments to our customers. We can provide no assurance that we will not incur losses related to these or other events beyond the limits or outside the coverage of our insurance policies. Further, disruptions to our operations could have a material adverse effect on our business and results of operations during the period of time that the facility is not operating.

In addition, we may also experience difficulties in producing sufficient quantities or quality of products or in achieving sufficient quality and manufacturing yield levels. Our Sarnia facility is also subject to risks associated with having single suppliers for certain key inputs, such as sugar, power and steam, so the failure of any of these suppliers to perform as expected, would also have a material adverse effect on our performance and results of operations. If we are unable to successfully operate and manage our manufacturing operations at our Sarnia facility or otherwise fail to meet our manufacturing needs, we may not be able to provide our customers with the quality or quantity of products they require, and thus could lose customers and suffer reduced revenues which may have a material adverse effect on our results of operations.

Our failure to comply with milestone covenants contained in certain of our agreements, including certain debt instruments, government grants and government loans, could result in events of default, and if not cured, would require their accelerated or immediate repayment, in which case our assets and cash flow are likely to be insufficient to make such repayments or fund our manufacturing expansion strategy.

The terms of our debt instruments require us to comply with various milestone covenants related to the start-up of our facility in Sarnia, Ontario. A breach of any of these covenants could result in an event of default under one or more of these debt instruments which, if not cured or waived, could give the holders of the defaulted indebtedness the right to terminate commitments to lend and cause all amounts outstanding with respect to the indebtedness to be due and payable immediately. We are also party to certain agreements with governmental entities that provide grants and loans and private lenders in connection with the operation of our Sarnia facility. If we fail to meet any of the covenants contained in these grant and loan agreements, we may be forced to repay grants received, the repayment of the loans may be accelerated. In addition, in connection with the termination of our joint venture agreement with Mitsui, (i) we entered into an Indemnity Agreement, pursuant to which we and BioAmber Sarnia have agreed to indemnify Mitsui for any payments it makes pursuant to its guarantee of our obligations under the Loan Agreement and the SJIF Loan Agreement; (ii) we entered into a Security Agreement pursuant to which we and BioAmber Sarnia agreed to pledge all of our personal property as security for our indemnification under the Indemnity Agreement; and (iii) we agreed with Mitsui that in the event a strategic investor acquires more than 25% of BioAmber, or any investor acquires more than 25% of BioAmber Sarnia, Mitsui will be released from all liability under its guarantee obligations for the Loan Agreement and the SJIF Loan Agreement. The above-described provisions of our agreements with Mitsui remain subject to the prior consent of our lenders and there can be no assurance that such consent will be obtained or that our lenders will not seek to modify, accelerate or terminate our loan agreements. If we are forced to repay government grants, accelerate the repayment of our loans or if any of our loans are terminated, our assets and cash flow are likely to be insufficient to make such repayments or fund our manufacturing expansion strategy.

We are dependent on our relationships with strategic partners, licensors, collaborators and other third parties for research and development, the funding, construction and operation of our manufacturing facilities and the commercialization of our products. The failure to manage these relationships could delay or prevent us from developing and commercializing our products.

We have built our business largely by forming technology partnerships and licensing and other relationships with market leaders in the industrial biotechnology and chemicals industries. For example, through an exclusive worldwide

license from Cargill, we have developed a next generation yeast microorganism. In addition, we have developed a proprietary purification process that we believe will provide a key cost differentiator to our competitors by reducing the cost profile of our products and the capital intensity of our plants. We have also entered into license agreements with Davy for the conversion of succinic acid to BDO and THF. We expect that our ability to maintain and manage these collaborations will be significant factors in the success of our business.

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Our ability to maintain and manage partnerships for the funding, construction and operation of our manufacturing facilities is a significant factor in the success of our business. If we lose a strategic partner, we may experience delays in developing and commercializing our products. On August 1, 2017, our joint venture with Mitsui terminated and, as a result, we will no longer have access to Mitsui as a source of funding.

We are working with our other strategic partners and collaborators through whom we either own or license the technology needed to develop new specialty chemical products. We will rely on these partners to commercialize our products and the success of these relationships will impact the market opportunity and demand for our products across our target end-markets.

Our partnering or collaboration opportunities could be harmed and our anticipated timelines could be delayed if:

we do not achieve our objectives under our arrangements in a timely manner, or at all;

our existing or potential industry partners become unable, unwilling or less willing to expend their resources on research and development or commercialization efforts with us due to general market conditions, their financial condition, feedstock pricing or other circumstances, many of which are beyond our control;

we disagree with a strategic partner or collaborator regarding strategic direction, economics of our relationship, intellectual property or other matters;

we are unable to successfully manage multiple simultaneous partnering arrangements;

our strategic partners and collaborators breach or terminate their agreements with us or fail to perform their agreed activities or

make planned equity contributions;

our industry partners become competitors of ours or enter into agreements with our competitors;

applicable laws and regulations, domestic or foreign, impede our ability to enter into strategic arrangements;

we develop processes or enter into additional partnering arrangements that conflict with the business objectives of our other arrangements; or

consolidation in our target markets limits the number of potential industry partners.

If any of these events occur, or if we fail to maintain our agreements with our strategic partners and collaborators, we may not be able to commercialize our existing and future products, further develop our business or generate sufficient revenues to support our operations. Additionally, our business could be negatively impacted if any of our industry partners undergo a change of control or assign the rights or obligations under any of our agreements.

We have entered into certain non-binding letters of intent, memoranda of understanding and other arrangements with future customers and others, and cannot assure you that such arrangements will lead to definitive agreements, which could harm our commercial prospects. Even if we do enter into definitive agreements, the rights and obligations of the parties may be modified in the future.

We have entered into non-binding letters of intent, memoranda of understanding and other arrangements with future customers and others. We have also entered several non-binding memoranda of understanding with third parties related to our product development efforts. We cannot assure you that we will be able to negotiate final terms and enter into definitive agreements with any of our future customers or others in a timely manner, or at all, and there is no guarantee that the terms of any final, definitive, binding agreement will be favorable to us or reflect the terms currently contemplated under the letters of intent, memoranda of understanding and other arrangements we have.

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Delays in negotiating final, definitive, binding agreements could slow the development and commercialization of the products in our pipeline, which could prevent us from growing our business, result in wasted resources and cause us to consume capital significantly faster than we currently anticipate.

We have signed a binding 15-year offtake agreement for 1,4 BDO and THF with Vinmar, under which Vinmar has committed to purchase 100% of the BDO and THF produced in our next plant, a 100,000 MT per year capacity plant that we plan to build in North America and commission by 2021. Vinmar also plans to invest in the BDO plant alongside us. Following the financing, construction and commissioning of the 100,000 MT BDO and THF plant, Vinmar will be obligated to purchase 100% of the BDO and THF produced there for 15 years, and we will be obligated to sell exclusively to Vinmar. As part of the agreement, Vinmar has a right of first refusal to invest in and secure 100% of the offtake from a second BDO plant that we would build in the future. While this agreement is binding, our inability to finance and construct the BDO plant would relieve Vinmar of its obligation to purchase BDO and THF under the terms of the offtake agreement.

On December 22, 2016, we entered into an amendment to this offtake agreement with Vinmar for 1,4 BDO and THF extended the deadline for achieving the financial close to December 31, 2018. We have signed a second offtake agreement in July 2014 with Vinmar that covers our next plant, which will have an annual nameplate capacity of 70,000 MT per year of bio-succinic acid, with Vinmar committed to off-taking 50,000 MT of the bio-succinic acid produced there for 15 years. Vinmar has also committed to offtake 150,000 MT of the production from our third plant, which has a planned nameplate capacity of 200,000 MT per year. On December 22, 2016, we entered into an amendment to this offtake agreement for bio-succinic acid, which terminated the portion of the offtake agreement related to our Sarnia facility in connection with entering into our non-binding letter of intent with CJCJ, pursuant to which such termination is a requirement of the definitive agreements contemplated by the non-binding letter of intent.

In addition, Mitsui, our former joint venture partner, began taking a more active role in the commercialization of bio-succinic acid in Asia in the spring of 2016. Mitsui has informed us, and we believe, that the continuation of the Vinmar arrangement has resulted in channel conflict and presented difficulty for Mitsui to develop the market for bio-succinic acid in Asia in parallel with Vinmar's efforts. We believe that such channel conflict would be exacerbated as CJCJ begins to sell bio-succinic acid in China and Korea as part of its pre-marketing efforts for our proposed China joint venture. In our original agreement, the second and third bio-succinic acid plants had December 31, 2016 and December 31, 2019 deadlines respectively for achieving a financial close. The amendment extended the deadlines for achieving the financial close of the second and third plants to December 31, 2018 and December 31, 2020, respectively. The amendment also removed the predefined production volume and offtake for the second and third bio-succinic acid plants. Vinmar and BioAmber must now agree to the bio-succinic acid capacity and offtake volume of plants two and three, taking into account global supply and demand dynamics. The failure of the parties to agree would allow either party to terminate the portion of the offtake agreement related to the plant in question.

On December 16, 2016, we entered into a non-binding letter of intent with CJ Cheiljedang Corporation (CJCJ). Until December 31, 2017, we and CJ Cheiljedang Corporation had entered into an exclusivity period in which we could not discuss, evaluate or enter into binding or non-binding agreements with any third parties in connection with a retrofit of an existing fermentation facility to produce bio-succinic acid using our low pH technology or to build new bio-succinic acid capacity in China or South Korea. Similarly, CJ Cheiljedang Corporation could not discuss, evaluate or enter into binding or non-binding agreements in connection with the research, development, manufacture or marketing of bio-succinic acid. Under the terms of the agreement, we and CJCJ had planned to establish a joint venture in China to produce up to 36,000 metric tons of bio-succinic acid annually and commercialize the output in Asia. The joint venture was subject to certain conditions, including technical and commercial due diligence, and the negotiation and execution of definitive agreements. However, we did not enter into definitive agreements for this collaboration.

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We will have broad discretion in how we use the net proceeds of this offering. We may not use these proceeds effectively, which could affect our results of operations and cause our stock price to decline.

We will have considerable discretion in the application of the net proceeds of this offering. We currently intend to use the net proceeds from this offering for working capital and other general corporate purposes. As a result, investors will be relying upon management's judgment with only limited information about our specific intentions for the use of the net proceeds of this offering. We may use the net proceeds for purposes that do not yield a significant return or any return at all for our stockholders. In addition, pending their use, we may invest the net proceeds from this offering in a manner that does not produce income or that loses value.

Provisions of Delaware law and our charter documents could delay or prevent an acquisition of our company and could make it more difficult for you to change management.

Provisions of our amended and restated certificate of incorporation and amended and restated by-laws may discourage, delay or prevent a merger, acquisition or other change in control that stockholders may consider favorable, including transactions in which stockholders might otherwise receive a premium for their shares. These provisions may also prevent or delay attempts by stockholders to replace or remove our current management or members of our board of directors. These provisions include:

a classified board of directors;

limitations on the removal of directors;

advance notice requirements for stockholder proposals and nominations;

the inability of stockholders to act by written consent or to call special meetings;

the ability of our board of directors to make, alter or repeal our amended and restated by-laws; and

the authority of our board of directors to issue blank check preferred stock, the terms of which may be established and the shares of which may be issued without stockholder approval.

The affirmative vote of the holders of not less than 75% of our shares of capital stock entitled to vote, and not less than 75% of the outstanding shares of each class entitled to vote thereon as a class, is generally necessary to amend or repeal the above provisions that are contained in our amended and restated certificate of incorporation. Also, absent approval of our board of directors, our amended and restated by-laws may only be amended or repealed by the affirmative vote of the holders of at least 75% of our shares of capital stock entitled to vote.

In addition, we are subject to the provisions of Section 203 of the Delaware General Corporation Law, which limits business combination transactions with stockholders of 15% or more of our outstanding voting stock that our board of directors has not approved. These provisions and other similar provisions make it more difficult for stockholders or potential acquirers to acquire us without negotiation. These provisions may apply even if some stockholders may

consider the transaction beneficial to them.

As a result, these provisions could limit the price that investors are willing to pay in the future for shares of our common stock. These provisions might also discourage a potential acquisition proposal or tender offer, even if the acquisition proposal or tender offer is at a premium over the then current market price for our common stock.

We do not intend to pay cash dividends. We have never paid dividends on our capital stock and we do not anticipate paying any dividends in the foreseeable future. Consequently, any gains from an investment in our securities will likely depend on whether the price of our common stock increases.

We have not paid dividends on any of our capital stock to date and we currently intend to retain our future earnings, if any, to fund the development and growth of our business. As a result, capital appreciation, if any, of our common stock will be your sole source of gain for the foreseeable future. Consequently, in the foreseeable future, you will likely only experience a gain from your investment in our securities if the price of our common stock increases.

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We have incurred and will continue to incur significant increased costs as a result of operating as a public company and our management is required to devote substantial time to new compliance initiatives.

As a public company and particularly after we cease to be an emerging growth company (and cease to take advantage of certain exceptions from reporting requirements that are available under the Jumpstart Our Business Startups Act of 2012, or the JOBS Act, as an emerging growth company), we incurred and will incur significant legal, accounting, administrative and other costs and expenses that we did not face as a private company. As a public company, we are subject to rules and regulations that regulate corporate governance practices of public companies, including the Securities Exchange Act of 1934, as amended, or the Exchange Act, the Sarbanes-Oxley Act of 2002, as amended, or the Sarbanes-Oxley Act, as well as rules promulgated by the Canadian Securities Administrators, the TSX for so long as our common stock remains listed there, and any stock exchange or quotation system on which we may seek to obtain a listing or quotation of our common stock. The compliance with these public company requirements increased and will increase our costs and make some activities more time consuming and may result in a diversion of management's time and attention from revenue-generating activities. For example, we created new board committees, adopted new internal controls and disclosure controls and procedures, and devoted significant management resources to our Securities and Exchange Commission reporting requirements. A number of those requirements will require us to carry out activities we have not performed previously. Furthermore, if we are unable to maintain our internal controls and accounting capabilities or subsequently identify any issues in complying with those requirements (for example, if we or our registered public accounting firm identify a material weakness or significant deficiency in our internal control over financial reporting), such as that identified in connection with the preparation of our condensed consolidated financial statements for the year ended December 31, 2016, we could incur additional costs rectifying those issues, and the existence of those issues could adversely affect us, our reputation or investor perceptions of us. The additional reporting and other obligations imposed on us by these rules and regulations increased our legal and financial compliance costs and the costs of our related legal, accounting and administrative activities significantly. These increased costs required and will continue to require us to divert a significant amount of money that we could otherwise use to expand our business and achieve our strategic objectives.

We are an emerging growth company and have elected to take advantage of reduced reporting requirements applicable to emerging growth companies, which could make our securities less attractive to investors.

We are an emerging growth company, as defined in the JOBS Act, and we have elected to take advantage of certain exemptions from various reporting requirements that are applicable to other public companies that are not emerging growth companies, including, but not limited to, not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act, or Section 404, reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements, exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and shareholder approval of any golden parachute payments not previously approved, and delaying the adoption of new or revised accounting standards until they are applicable to private companies. As a result of our election to use the extended transition period provided in Section 7(a)(2)(B) of the Securities Act, our financial statements may not be comparable to companies that comply with new or revised accounting standards on the relevant dates on which adoption of such standards is required for companies that comply with public company effective dates. We cannot predict if investors will find our securities less attractive as a result of our choice to rely on these exemptions. If some investors find our securities less attractive as a result, there may be a less active trading market for our securities and the market price of our securities may be more volatile.

We will remain an emerging growth company for up to five years after our initial public offering, or until the earliest of (i) the last day of the first fiscal year in which our annual gross revenues exceed \$1 billion, (ii) the date that we become a large accelerated filer as defined in Rule 12b-2 under the Exchange Act, which would occur if the market value of our common stock that is held by non-affiliates exceeds \$700 million as of the last business day of our most

recently completed second fiscal quarter, or (iii) the date on which we have issued more than \$1 billion in non-convertible debt during the preceding three year period.

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We expect to enter into collective bargaining with the employees of BioAmber Sarnia, and the results of this process are uncertain.

Following an application for certification recently received and a vote recently held, it is expected that the employees of BioAmber Sarnia Inc., the owner of our Sarnia facility, will be unionized in the province of Ontario, Canada, subject to the negotiation and execution of a collective bargaining agreement between BioAmber Sarnia Inc. and the union having filed the application for certification. We may commence negotiations of a collective bargaining agreement in the near future. Any labor-related work stoppage by unionized employees, or employees who become unionized in the future, could limit our ability to operate our business and could increase costs. Any significant increase in labor costs, deterioration of employee relations, slowdowns or work stoppages at our Sarnia facility, whether due to union activities, employee turnover or otherwise, could have a material adverse effect on our financial condition, cash flows and results of operations.

If we fail to augment and maintain an effective system of internal controls, we might not be able to report our financial results accurately or prevent fraud. In that case, our stockholders could lose confidence in our financial reporting, which would harm our business and could negatively impact the price of our securities.

Our management is required to deliver a report that assesses the effectiveness of our internal control over financial reporting. Additionally, Section 404 may require our auditors to deliver an attestation report on the effectiveness of our internal controls over financial reporting in conjunction with their opinion on our audited financial statements beginning with the second annual report that we will be required to file with SEC. However, we have elected to take advantage of certain exceptions from reporting requirements that are available to emerging growth companies under the JOBS Act and therefore we will not be required to make our first annual assessment of our internal control over financial reporting pursuant to Section 404 until after the date we are no longer an emerging growth company as defined in the JOBS Act, which may be up to five years from our initial public offering.

The process of designing and implementing effective internal controls and procedures, and expanding our internal accounting capabilities, is a continuous effort that requires us to anticipate and react to changes in our business and the economic and regulatory environments and to expend significant resources to establish and maintain a system of internal controls that is adequate to satisfy our reporting obligations as a public company. The standards that must be met for management to assess the internal control over financial reporting as effective are complex, and require significant documentation, testing and possible remediation to meet the detailed standards. We cannot be certain at this time whether we will be able to successfully complete the implementation of controls and procedures or the certification and attestation requirements of Section 404. In connection with the preparation of our consolidated financial statements for the year ended December 31, 2016 and our condensed consolidated financial statements for the quarter ended September 30, 2015, we identified a material weakness in internal control over financial reporting that, if not corrected, could result in a material misstatement in our financial statements. See the risk factor in our Annual Report on Form 10-K for the fiscal year ended December 31, 2016 entitled "We identified a material weakness in our internal control over financial reporting as of December 31, 2016 and as of September 30, 2015 and we may identify additional material weaknesses in the future that may cause us to fail to meet our reporting obligations or result in material misstatements of our financial statements. If we fail to remediate any material weaknesses or if we otherwise fail to establish and maintain effective control over financial reporting, our ability to accurately and timely report our financial results could be adversely affected. In the future we may have significant deficiencies, which could cause us to fail to meet the periodic reporting obligations that we will be subject to under Section 404 or result in material misstatements in our financial statements. If we identify and report a material weakness or any additional significant deficiencies, it could adversely affect our stock price."

Loss of key personnel or our inability to attract and retain additional key personnel could harm our research and development efforts, delay launch of new products and impair our ability to meet our business objectives.

Our business involves complex operations spanning a variety of disciplines that demands a management team and employee workforce that is knowledgeable in the many areas necessary for our operations. While we have been successful in attracting experienced, skilled professionals to our company, the loss of any key member of our management team or key research and development or operational employees, or the failure to attract and retain

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additional such employees, could slow our development and commercialization of our products for our target markets and executing our business plans. For example, on February 17, 2017, Jean-Francois Huc, our then Chief Executive Officer and President resigned from such positions. Over the years, we have been dependent upon Mr. Huc's leadership, experience in the global chemistry industry and understanding of our company. No assurance can be made that the resignation of Mr. Huc will not have an adverse effect on our business, financial condition and results of operations. In addition, in October 2017, we entered into a Separation and Consulting Agreement with Fabrice Orecchioni, our former President and Chief Operations Officer. While Mr. Orecchioni has agreed to provide consulting services to us for a period of four months following this termination, there can be no assurance that the departure of Mr. Orecchioni will not have an adverse effect on our business, financial condition and results of operations.

In addition, we may not be able to attract or retain qualified employees due to the intense competition for qualified personnel among biotechnology and other technology-based businesses and the scarcity of personnel with the qualifications or experience necessary for our business. Hiring, training and successfully integrating qualified personnel into our operation is a lengthy and expensive process. The market for qualified personnel is very competitive because of the limited number of people available with the necessary technical skills and understanding of our technology and anticipated products. If we are not able to attract and retain the necessary personnel to accomplish our business objectives, we may experience staffing constraints that will adversely affect our ability to support our internal research and development programs or satisfy customer demands for our products. In particular, our product development and research and development programs are dependent on our ability to attract and retain highly skilled scientific, technical and operational personnel. Competition for such personnel from numerous companies and academic and other research institutions may limit our ability to do so on acceptable terms, or at all. Substantially all of our employees are at-will employees, which means that either the employee or we may terminate their employment at any time.

If securities or industry research analysts cease publishing research or reports about our business or if they issue unfavorable commentary or downgrade our common stock, the market price of our securities and trading volume could decline.

The trading market for our securities relies in part on the research and reports that securities and industry research analysts publish about us, our industry and our business. We do not have any control over these analysts. The market price of our securities and trading volumes could decline if one or more securities or industry analysts downgrade our securities, issue unfavorable commentary about us, our industry or our business, cease to cover our company or fail to regularly publish reports about us, our industry or our business.

Our existing warrants to purchase common stock contain anti-dilution adjustment mechanisms that may be triggered by issuances of equity by us at prices below the then-prevailing exercise prices for such existing warrants.

All of our outstanding legacy warrants that we issued in June 2009 (the 2009 Warrants) and April 2011 (the 2011 Warrants) to purchase shares of our common stock contain anti-dilution protection in the event that we issue any common stock, securities convertible into common stock, or other securities at a price below the then-existing exercise price of such warrants, with certain exceptions. The anti-dilution protection contains a price adjustment and an adjustment to the number of shares issuable upon exercise of such warrants. This anti-dilution protection was triggered in connection with our underwritten public offerings in 2015 and in 2016, as well as by our offering in August 2017. As of September 30, 2017, our outstanding 2009 Warrants to purchase 291,100 shares of our common stock had an exercise price of \$4.12 and our outstanding 2011 Warrants to purchase 151,220 shares of our common stock had an exercise price of \$6.61. The issuance of additional securities in connection with the adjustment to the exercise price of such warrants could result in further dilution to our stockholders. In addition, the warrants that we

issued in our August 2017 offering and private placement to purchase 14,939,998 shares of our common stock at an initial exercise price of \$0.75 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 warrants, with certain exceptions. These anti-dilution provisions may be triggered by the issuance of the shares being offered hereby or upon any future issuance by us of shares of our common stock or common stock equivalents at a price per share below the then-exercise price of the warrants, subject to some exceptions.

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Significant holders or beneficial holders of our common stock may not be permitted to exercise warrants that they hold.

The warrants being offered hereby will prohibit a holder from exercising its warrants if doing so would result in such holder beneficially owning more than 4.99% of our common stock. Any holder may increase or decrease this beneficial ownership limitation to any other percentage not in excess of 9.99% upon, in the case of an increase, not less than 61 days prior written notice to us. As a result, you may not be able to exercise your warrants for shares of our common stock at a time when it would be financially beneficial for you to do so. In such circumstance, you could seek to sell your warrants to realize value but you may be unable to do so.

The effect of comprehensive U.S. tax reform legislation on us , whether adverse or favorable, is uncertain.

On December 22, 2017, President Trump signed into law H.R. 1, An Act to provide for reconciliation pursuant to titles II and V of the concurrent resolution on the budget for fiscal year 2018 (informally titled the Tax Cuts and Jobs Act). Among a number of significant changes to the U.S. federal income tax rules, the Tax Cuts and Jobs Act reduces the marginal U.S. corporate income tax rate from 35% to 21%, limits the deduction for net interest expense, shifts the United States toward a more territorial tax system, and imposes new taxes to combat erosion of the U.S. federal income tax base. The effect of the Tax Cuts and Jobs Act on us and our affiliates, whether adverse or favorable, is uncertain, and may not become evident for some period of time. You are urged to consult your tax adviser regarding the implications of the Tax Cuts and Jobs Act for an investment in us.

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USE OF PROCEEDS

We estimate that the net proceeds from this offering will be approximately \$ million, after deducting estimated placement agent fees and estimated offering expenses payable by us. We intend to use the net proceeds from this offering for working capital and other general corporate purposes.

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If you invest in our common stock and warrants, you will experience dilution to the extent of the difference between the offering price per Unit (attributing no value to the warrants) and the net tangible book value per share of our common stock immediately after this offering.

Our net tangible book value as of September 30, 2017, was approximately \$100.2 million, or \$1.92 per share of our common stock, based upon 52,114,923 shares of our common stock outstanding as of that date. Net tangible book value per share is determined by dividing our total tangible assets, less total liabilities, by the number of shares of our common stock outstanding as of September 30, 2017. Dilution in net tangible book value per share represents the difference between the amount per share paid by purchasers of shares of common stock in this offering and the net tangible book value per share of our common stock immediately after this offering.

After giving effect to the sale of (i) Series A Units each consisting of one share of our common stock, one Series A common warrant to purchase one share of common stock and one Series B common warrant to purchase one share of common stock in this offering, and one Series C common warrant to purchase shares of common stock, at the offering price of \$0.15 per Series A Unit, and (ii) Series B Units each consisting of one pre-funded warrant to purchase one share of common stock, one Series A common warrant to purchase one share of common stock, one Series B common warrant to purchase one share of common stock and one Series C common warrant to purchase shares of common stock, at the offering price of \$0.149 (which equals the offering price of the common stock included in a Series A Unit less the nominal \$0.001 per share exercise price of each pre-funded warrant offered hereunder), and after deducting the estimated placement agent fees and estimated offering expenses payable by us, and excluding the proceeds, if any, from the exercise of the common warrants and pre-funded warrants issued in this offering, our as adjusted net tangible book value as of September 30, 2017, would have been approximately \$ million, or \$ per share. This represents an immediate increase in net tangible book value of \$ per share to existing stockholders and immediate dilution in net tangible book value of \$ per share to new investors purchasing our common stock and common warrants and pre-funded warrants in this offering at the offering price. The following table illustrates this dilution on a per share basis:

Offering price per Series A Unit		\$	0.15
Offering price per Series B Unit		\$	0.149
Net tangible book value per share as of September 30, 2017	\$	1.92	
Decrease in net tangible book value per share attributable to new investors	\$		
As adjusted net tangible book value per share as of September 30, 2017 after giving effect to this offering		\$	
Discount to net tangible book value per share to investors in this offering		\$	

The foregoing table and discussion is based on 52,114,923 shares outstanding as of September 30, 2017 and excludes:

6,865,543 shares of our common stock issuable upon the exercise of stock options outstanding as of September 30, 2017, at a weighted average exercise price of \$5.94 per share;

659,650 shares of our common stock reserved for future issuance under our equity incentive plans as of September 30, 2017;

17,707,880 shares of our common stock issuable upon the exercise of warrants outstanding as of September 30, 2017, at a weighted average exercise price of \$1.43 per share; and

shares of our common stock issuable upon the exercise of common warrants and the pre-funded warrants offered hereby. Investors should note that the Series C Warrants may be exercisable into a number of shares that is not determinable at the date of this prospectus, as such number depends upon the future price of our common stock.

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The above illustration of dilution per share to investors participating in this offering assumes no exercise of outstanding options to purchase our common stock or outstanding warrants to purchase shares of our common stock. The exercise of outstanding options and warrants having an exercise price less than the offering price will increase dilution to new investors. In addition, we may choose to raise additional capital depending on market conditions, our capital requirements and strategic considerations, even if we believe we have sufficient funds for our current or future operating plans. To the extent that additional capital is raised through the sale of equity or convertible debt securities, the issuance of these securities could result in further dilution to our stockholders.

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Table of Contents**CAPITALIZATION**

The following table sets forth our cash and capitalization as of September 30, 2017:

on an actual basis;

on an as adjusted basis to give effect to the receipt of estimated net proceeds of \$ from this offering of Series A Units at an offering price of \$0.15 per Series A Unit and Series B Units an offering price of \$0.149 per series B Unit, and after deducting estimated placement agent fees and estimated offering expenses payable by us.

You should read this table in conjunction with Use of Proceeds as well as our Management's Discussion and Analysis of Financial Condition and Results of Operations and our consolidated financial statements, including the related notes, incorporated by reference into this prospectus supplement and the accompanying prospectus.

	As of September 30, 2017	
	As	
	Adjusted	
	Actual	(unaudited)
	(in thousands, except share and per share data)	
Cash(1)	\$ 10,228	\$
Debt:		
Long term debt, including current portion	37,198	37,198
Warrants financial liability	4,253	
Stockholders' equity:		
Preferred stock, par value \$0.01 per share; 5,000,000 authorized, zero shares issued or outstanding, actual and as adjusted		
Common stock, par value \$0.01 per share; 250,000,000 shares authorized; 52,114,923 shares issued and outstanding, actual, and shares issued and outstanding, as adjusted(2)	521	
Additional paid-in capital	351,271	
Warrants	478	
Accumulated deficit	(234,850)	(234,850)
Accumulated other comprehensive loss	(10,632)	(10,632)
Total stockholders' equity	106,788	

Total capitalization	\$	148,239	\$
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- (1) Does not include approximately \$300,825 (CAD \$375,000) of restricted cash classified separately on the balance sheet at September 30, 2017, which is held in an escrow account as a guarantee pursuant to a steam supply agreement with Arlenxio Inc.
- (2) The number of shares of our common stock in the table above excludes:

6,865,543 shares of our common stock issuable upon the exercise of stock options outstanding as of September 30, 2017, at a weighted average exercise price of \$5.94 per share;

659,650 shares of our common stock reserved for future issuance under our equity incentive plans as of September 30, 2017;

17,707,880 shares of our common stock issuable upon the exercise of warrants outstanding as of

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September 30, 2017, at a weighted average exercise price of \$1.43 per share; and

shares of our common stock issuable upon the exercise of common warrants and the pre-funded warrants offered hereby. Investors should note that the Series C Warrants may be exercisable into a number of shares that is not determinable at the date of this prospectus, as such number depends upon the future price of our common stock.

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Table of Contents**PRICE RANGE OF COMMON STOCK AND WARRANTS**

Until February 8, 2018, our common stock traded on the NYSE and the TSX under the symbol BIOA. On February 8, 2018, the NYSE announced that it suspended trading in our common stock pursuant to Section 802.01D of the NYSE's Listed Company Manual due to an abnormally low trading price. The NYSE also announced that it would commence proceedings to delist our common stock from the NYSE. The warrants sold as part of our May 9, 2013 initial public offering previously traded on the NYSE under the symbol BIOA.WS from June 10, 2013, when the units issued in our initial public offering were split into common stock and warrants, through May 9, 2017, when such warrants expired. Upon expiration, the warrants were delisted. The following table shows the high and low sale prices per share of our common stock and per warrant as reported on the NYSE for the periods indicated:

	Common Stock		Warrants	
	High	Low	High	Low
Year ending December 31, 2018				
1st Quarter (until February 7, 2018)	\$ 0.48	\$ 0.17		
Year ending December 31, 2017				
1st Quarter	\$ 6.24	\$ 2.10	\$ 1.00	\$ 0.03
2nd Quarter	\$ 2.88	\$ 1.88	\$ 0.05	\$ 0.01
3rd Quarter	\$ 2.74	\$ 0.32		
4th Quarter	\$ 0.72	\$ 0.35		
Year ended December 31, 2016				
1st Quarter	\$ 6.59	\$ 2.86	\$ 2.00	\$ 0.69
2nd Quarter	\$ 4.80	\$ 2.86	\$ 1.71	\$ 0.30
3rd Quarter	\$ 4.33	\$ 2.99	\$ 0.50	\$ 0.18
4th Quarter	\$ 6.50	\$ 3.55	\$ 1.00	\$ 0.21
Year ended December 31, 2015				
1st Quarter	\$ 9.99	\$ 7.43	\$ 1.88	\$ 1.40
2nd Quarter	\$ 11.30	\$ 8.10	\$ 2.41	\$ 1.41
3rd Quarter	\$ 8.72	\$ 4.64	\$ 2.19	\$ 1.51
4th Quarter	\$ 8.92	\$ 4.97	\$ 2.03	\$ 1.20
Year ended December 31, 2014				
1st Quarter	\$ 15.05	\$ 7.37	\$ 3.13	\$ 0.75
2nd Quarter	\$ 12.99	\$ 9.05	\$ 2.88	\$ 1.68
3rd Quarter	\$ 15.29	\$ 9.66	\$ 2.79	\$ 2.20
4th Quarter	\$ 10.80	\$ 7.38	\$ 2.74	\$ 0.80
Year ended December 31, 2013				
2nd Quarter (beginning June 10, 2013)(1)	\$ 8.29	\$ 6.30	\$ 1.00	\$ 0.15
3rd Quarter	\$ 7.75	\$ 3.96	\$ 0.99	\$ 0.50
4th Quarter	\$ 8.23	\$ 4.98	\$ 1.14	\$ 0.51

- (1) From May 10, 2013 through June 7, 2013 our units traded on the NYSE under the symbol BIOA.U. The high and low sales prices per unit as reported on the NYSE during the period May 10, 2013 through June 7, 2013 were \$10.05 and \$7.01, respectively.

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On February 7, 2018, the last reported sale price for our common stock on the NYSE was \$0.17 per share. As of February 2, 2018, there were approximately 99 record holders of our common stock.

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DIVIDEND POLICY

We have never paid or declared any cash dividends on our common stock. We currently intend to retain any cash flow to finance the growth and development of our business, and we do not expect to pay any cash dividends on our common stock in the foreseeable future. Payment of future dividends, if any, will be at the discretion of our board of directors and will depend on our financial condition, results of operations, capital requirements, restrictions contained in current or future financing instruments and other factors our board of directors deems relevant. In addition, our credit facility contains covenants limiting our ability to pay dividends on our capital stock. Investors should not purchase our common stock or our warrants with the expectation of receiving dividends.

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DESCRIPTION OF SECURITIES

In this offering, we are offering _____ shares of common stock, Series A common warrants to purchase up to _____ shares of common stock, Series B common warrants to purchase up to _____ shares of common stock, Series C common warrants to purchase that number of shares of common stock as described therein and pre-funded warrants to purchase up to _____ shares of common stock. This prospectus supplement also relates to the offering of shares of our common stock upon the exercise, if any, of the warrants issued in this offering.

Common Stock

Our authorized capital stock consists of 250,000,000 shares of common stock, \$0.01 par value per share, and 5,000,000 shares of preferred stock, \$0.01 par value per share. As of September 30, 2017, there were 52,114,923 shares of our common stock outstanding and warrants issued prior to our initial public offering, or legacy warrants, to purchase 651,659 shares of our common stock outstanding.

The material terms and provisions of our common stock are described under the caption Description of Capital Stock starting on page 16 of the accompanying prospectus.

Warrants

The material terms and provisions of the warrants to purchase shares of common stock being offered pursuant to this prospectus supplement and the accompanying prospectus are summarized below. This summary is subject to and qualified in its entirety by the form of common warrant and the form of pre-funded warrant, which will be provided to each investor in this offering and will be filed on a Current Report on Form 8-K in connection with this offering.

General Terms of the Warrants

The Series A common warrants to be issued in this offering represent the rights to purchase up to _____ shares of common stock at an initial exercise price of \$0.15 per share, subject to adjustment. Each warrant may be exercised at any time beginning immediately upon issuance and from time to time thereafter through and including August _____, 2018.

The Series B common warrants to be issued in this offering represent the rights to purchase up to _____ shares of common stock at an initial exercise price of \$0.15 per share, subject to adjustment. Each warrant may be exercised at any time beginning immediately upon issuance and from time to time thereafter through and including February _____, 2023.

The per-share exercise prices of the Series A common warrants and the Series B common warrants may be decreased (but not increased) at the end of the 5th trading day following the public announcement of this offering (the Trigger Date), to an amount equal to the lesser of (a) the then exercise price, as adjusted, and (b) the greater of (i) 90% of the lowest daily volume weighted average price of the Company's common stock on the Company's trading market during the five trading days including and immediately prior to such date and (ii) \$0.05, and the number of shares issuable under the Series A warrants and Series B warrants will be increased such that the aggregate exercise price payable thereunder, after taking into account the adjusted exercise price, will be equal to the aggregate exercise price prior to the Trigger Date.

The Series C common warrants to be issued in this offering will be immediately exercisable and will be exercisable until the Series C common warrant is exercised in full. Each Series C common warrant will have a nominal exercise

price of \$0.00001 per share, subject to adjustment as set forth therein, and consequently, no additional payment or other consideration (other than the nominal exercise price of \$0.00001 per share) will be required to be delivered to us by the holder upon exercise. The number of shares underlying the Series C common warrants is initially zero, but may be increased at the end of the 5th trading day following the public announcement of this offering (or such earlier trading day on which 90% of our daily volume weighted average price of the our common stock on the our trading market on such date is equal to or less than \$0.05), to an amount equal to the difference between (1) subscription amount of each purchaser of the Series B units divided by the lesser of (a) the original per-unit

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purchase price of the Series A and/or Series B units purchased and (b) the greater of (i) 90% of the lowest daily volume weighted average price of the our common stock on the trading market during the five trading days including and immediately prior to such date and (ii) \$0.05, and (2) the sum of the number of shares of common stock and pre-funded warrants, if any, issued to the purchaser at the closing of this offering.

The pre-funded warrants to be issued in this offering represent the rights to purchase up to _____ shares of common stock at an initial exercise price of \$0.15 per share, subject to adjustment. Each pre-funded warrant may be exercised at any time beginning immediately upon issuance and from time to time thereafter until such pre-funded warrant is exercised in full. The exercise price of \$0.15 per share will be pre-paid, except for a nominal exercise price of \$0.001 per share of common stock, upon issuance of the pre-funded warrants and, consequently, no additional payment or other consideration (other than the nominal exercise price of \$0.001 per share) will be required to be delivered to us by the holder upon exercise.

The purpose of the pre-funded warrants is to enable investors that may have restrictions on their ability to beneficially own more than 4.99% of our outstanding common stock following the consummation of this offering the opportunity to invest capital into the Company without triggering such ownership restrictions. By receiving pre-funded warrants in lieu of the shares of common stock contained in the Series A Units, which would result in such holders' ownership exceeding 4.99%, such holders will have the ability to exercise their options to purchase the shares underlying the pre-funded warrants for nominal consideration at a later date. Pre-funded warrants that expire unexercised will have no further value and the holders of such warrants will lose the pre-funded amount.

Anti-Dilution Protection

If at any time while any of the warrants are still outstanding, we issue common stock or any type of securities giving the holders thereof the right to purchase common stock at a price below the purchase price (as adjusted) of the pre-funded warrants or the exercise price of the Series A common warrants and the Series B common warrants, the purchasers will have full-ratchet anti-dilution protection on any outstanding pre-funded warrants (via an increase in the number of shares of common stock underlying the pre-funded warrants) and the Series A common warrants and Series B common warrants (via a decrease in the exercise price per share thereof), subject to a \$0.05 floor.

Exercise

Holders of the warrants may exercise their warrants to purchase shares of our common stock on or before the expiration date by delivering (i) notice of exercise, appropriately completed and duly signed, and (ii) if such holder is not utilizing the cashless exercise provisions with respect to the warrants, payment of the exercise price for the number of shares with respect to which the warrant is being exercised. Warrants may be exercised in whole or in part, but only for full shares of common stock. We provide certain rescission and buy-in rights to a holder if we fail to deliver the shares of common stock underlying the warrants by the first trading day after the date on which delivery of the stock certificate is required by the warrant. With respect to the rescission rights, the holder has the right to rescind the exercise if stock certificates are not timely delivered. The buy-in rights apply if after the first trading day on which delivery of the stock certificate is required by the warrant, the holder purchases (in an open market transaction or otherwise) shares of our common stock to deliver in satisfaction of a sale by the holder of the warrant shares that the holder anticipated receiving from us upon exercise of the warrant. In this event, we will:

pay in cash to the holder the amount equal to the excess (if any) of the buy-in price over the product of
(A) the number of warrant shares that we were required to deliver to the holder, times (B) the price at which

the sell order giving rise to holder's purchase obligation was executed; and

at the election of the holder, either (A) reinstate the portion of the warrant as to such number of shares of common stock, or (B) deliver to the holder a certificate or certificates representing such number of shares of common stock.

In addition, the warrant holders are entitled to a cashless exercise option if, at any time of exercise, there is no effective registration statement registering, or no current prospectus available for, the issuance or resale of the shares of common stock underlying the warrants. This option entitles the warrant holders to elect to receive fewer

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shares of common stock without paying the cash exercise price. The number of shares to be issued would be determined by a formula based on the total number of shares with respect to which the warrant is being exercised, the market price per share of our common stock at the time of exercise and the applicable exercise price of the warrants issued in this offering.

The issuance of common stock upon exercise or conversion of the warrants may not exceed the then-authorized number of shares of common stock under our certificate of incorporation, less the number of shares of common stock then outstanding or reserved for issuance upon exercise or conversion of other convertible securities that are then outstanding. Such limit may be increased by procuring any necessary increase in the number of our authorized shares of common stock or reducing the number of outstanding shares of common stock, including through a reverse split of our common stock. However, there can be no assurance that we may be able to obtain such increase in our authorized common stock or reduction in the number of our outstanding common stock, each of which requires, among other things, one or more amendments to our certificate of incorporation approved by our stockholders. Subject to such limit, the shares of common stock issuable on exercise of the warrants will be, when issued and paid for in accordance with the warrants, duly and validly authorized, issued and fully paid and non-assessable.

Fundamental Transactions

If, at any time while the warrants are outstanding, we, directly or indirectly, (1) consolidate or merge with or into another person, (2) sell, lease, license, assign, transfer, convey or otherwise dispose of all or substantially all of our assets or (3) are subject to or complete a tender or exchange offer pursuant to which holders of our common stock are permitted to tender or exchange their shares for other securities, cash or property and which has been accepted by 50% or more of the outstanding common stock, (4) effect any reclassification, reorganization or recapitalization of our common stock or any compulsory share exchange pursuant to which our common stock is effectively converted into or exchanged for other securities, cash or property, or (5) in one or more transactions consummate a stock purchase agreement or other business combination where the other party acquires more than 50% of our outstanding shares of common stock (each, a Fundamental Transaction), then the holder shall have the right thereafter to receive, upon exercise of the warrant, the same amount and kind of securities, cash or property as it would have been entitled to receive upon the occurrence of such Fundamental Transaction if it had been, immediately prior to such Fundamental Transaction, the holder of the number of warrant shares then issuable upon exercise of the warrant, and any additional consideration payable as part of the Fundamental Transaction. Any successor to us or surviving entity shall assume the obligations under the warrant. In addition, with respect to our common warrants, in the event we complete a Fundamental Transaction, the holders of the warrants will have the right to require us or our successor, to repurchase the remaining unexercised portion of the warrants at their then-current Black-Scholes Value (as defined) exercisable solely within thirty (30) days of the closing of a Fundamental Transaction.

Subsequent Rights Offerings

If, at any time while the warrants are outstanding, we issue rights, options or warrants to all holders of our common stock entitling them to purchase our common stock, then the holders of the warrants will be entitled to acquire those rights, options and warrants on the basis of the number of shares of common stock acquirable upon complete exercise of the warrants.

Pro Rata Distributions

If, at any time while the warrants are outstanding, we make a dividend or distribution of assets or rights to acquire assets to all holders of our common stock, the holders of the warrants will be entitled to participate in the dividend or distribution of assets or rights to acquire assets on the basis of the number of shares of common stock acquirable upon

complete exercise of the warrants.

Certain Adjustments

The exercise price and the number of shares of common stock purchasable upon the exercise of the warrants are subject to adjustment upon the occurrence of specific events, including stock dividends, stock splits, combinations and reclassifications of our common stock.

With respect to the common warrants, we may voluntarily reduce the then current exercise price or extend the termination date, which such changes may be offered, in our discretion, only to warrant holders who initially purchased more than \$100,000 of securities in this offering.

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Delivery of Shares

Upon the holder's exercise of a warrant, we will promptly, but in no event later than the first trading day after the holder delivers to us a notice of exercise, or the Warrant Share Delivery Date, issue and deliver, or cause to be issued and delivered, the shares of common stock issuable upon exercise of the warrant. We will, if either there is an effective registration statement permitting the issuance of the warrant shares to or resale of the warrant shares by holder or the warrant is being exercised via cashless exercise, issue and deliver the shares electronically through The Depository Trust Corporation through its Deposit Withdrawal Agent Commission System (DWAC) or another established clearing corporation performing similar functions.

Notice of Corporate Action

We will provide notice to holders of the warrants to provide them with the opportunity to exercise their warrants and hold common stock in order to participate in or vote on the following corporate events:

if we shall take a record of the holders of our common stock for the purpose of entitling them to receive a dividend or other distribution, or any right to subscribe for or purchase any shares of stock of any class or any other right;

any reclassification of our common stock, any consolidation or merger to which we are a party, any sale or transfer of all or substantially all of our assets, or any compulsory share exchange whereby our common is converted into other securities, cash or property; or

a voluntary or involuntary dissolution, liquidation or winding up.

Limitations on Exercise

The number of warrant shares that may be acquired by any holder upon any exercise of the warrant shall be limited to the extent necessary to insure that, following such exercise (or other issuance), the total number of shares of common stock then beneficially owned by such holder and its affiliates and any other persons whose beneficial ownership of common stock would be aggregated with the holder's for purposes of Section 13(d) of the Exchange Act, does not exceed 4.99% of the total number of issued and outstanding shares of common stock (including for such purpose the shares of common stock issuable upon such exercise), or beneficial ownership limitation. The holder may elect to change this beneficial ownership limitation from 4.99% to 9.99% of the total number of issued and outstanding shares of common stock (including for such purpose the shares of common stock issuable upon such exercise) upon 61 days prior written notice.

Additional Provisions

The above summary of certain terms and provisions of the warrants is qualified in its entirety by reference to the detailed provisions of the warrants, the forms of which will be filed as an exhibit to a Current Report on Form 8-K that is incorporated herein by reference. We are not required to issue fractional shares upon the exercise of the warrants. No holders of the warrants will possess any rights as a stockholder under those warrants until the holder exercises those warrants, except as set forth in the warrants. The warrants may be transferred independent of the common stock they were issued with, on a form of assignment, subject to all applicable laws.

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CERTAIN U.S. FEDERAL INCOME TAX CONSIDERATIONS

This section summarizes certain U.S. federal income tax considerations relating to the purchase, ownership and disposition of common stock, Series A warrants, Series B warrants and pre-funded warrants. This summary does not provide a complete analysis of all potential tax considerations. The information provided below is based upon provisions of the Internal Revenue Code of 1986, as amended, or the Code, Treasury regulations promulgated thereunder and administrative rulings and judicial decisions, all as currently in effect. These authorities may change at any time, possibly on a retroactive basis, or the U.S. Internal Revenue Service, or the IRS, might interpret the existing authorities differently. In either case, the tax considerations of purchasing, owning or disposing of common stock, Series A warrants, Series B warrants or pre-funded warrants could differ from those described below.

This discussion does not address all of the U.S. federal income tax considerations that might be relevant to a beneficial owner in light of such beneficial owner's particular circumstances or to beneficial owners subject to special treatment under the U.S. federal income tax laws, including:

a broker, dealer or trader in securities, currencies, commodities, or notional principal contracts;

a bank, financial institution or insurance company;

a regulated investment company, a real estate investment trust or grantor trust;

a tax-exempt entity or organization, including an individual retirement account or Roth IRA as defined in Section 408 or 408A of the Code, respectively;

a person holding the common stock, Series A warrants, Series B warrants or pre-funded warrants as part of a hedging, integrated, or conversion transaction or a straddle, or a person deemed to sell common stock, Series A warrants, Series B warrants or pre-funded warrants under the constructive sale provisions of the Code;

a trader in securities that has elected the mark-to-market method of tax accounting for securities;

an entity that is treated as a partnership or other pass-through entity for U.S. federal income tax purposes;

a person who is a partner or investor in a partnership or other pass-through entity that holds the common stock, Series A warrants, Series B warrants or pre-funded warrants;

a U.S. person whose functional currency is not the U.S. dollar;

For purposes of this discussion, a U.S. holder is a beneficial owner of a share of common stock, a Series A warrant, Series B warrant or a pre-funded warrant that is, for U.S. federal income tax purposes:

an individual who is a citizen or resident of the United States;

a corporation (or any other entity treated as a corporation for U.S. federal income tax purposes) created or organized in or under the laws of the United States, any state thereof or the District of Columbia;

an estate the income of which is subject to U.S. federal income taxation regardless of its source; or

a trust if (1) it is subject to the primary supervision of a court within the United States and one or more U.S. persons have the authority to control all substantial decisions of the trust or (2) it has a valid election in effect under applicable U.S. Treasury regulations to be treated as a U.S. person.

If a partnership holds shares of common stock, Series A warrants, Series B warrants or pre-funded warrants, the tax treatment of a partner will generally depend upon the status of the partner and the activities of the partnership. A partnership holding shares of common stock, Series A warrants, Series B warrants or pre-funded warrants or a partner therein should consult its own tax advisors as to the tax consequences of holding and disposing of the shares of common stock, Series A warrants, Series B warrants or pre-funded warrants.

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You are urged to consult your tax advisor with respect to the application of the U.S. federal income tax laws to your particular situation, as well as any tax consequences of the purchase, ownership and disposition of our common stock, Series A warrants, Series B warrants or pre-funded warrants arising under the U.S. federal estate or gift tax rules or under the laws of any U.S. state or local or any non-U.S. or other taxing jurisdiction or under any applicable tax treaty.

Certain U.S. Federal Income Tax Considerations for U.S. Holders of Common Stock and Warrants

Investment Unit

Both the common stock and Series A warrants and Series B warrants, on the one hand, and the pre-funded warrants and Series A warrants and Series B warrants, on the other hand, should each be treated for U.S. federal income tax purposes as an investment unit consisting of one share of our common stock and warrants to acquire shares of our common stock. For U.S. federal income tax purposes, the purchase price paid for each investment unit will be allocated between the shares of common stock and the warrants based on their respective relative fair market values. This allocation will be based upon our determination of the relative values of the warrants and of our common stock, which we will complete following the closing of the offering. While uncertain, the IRS, by analogy to the rules relating to the allocation of the purchase price to components of a unit consisting of debt and equity, may take the position that this allocation is binding on you unless you explicitly disclose in a statement attached to your timely filed U.S. federal income tax return for the tax year that includes your acquisition date of the unit that your allocation of the purchase price is different than our allocation. This allocation is not binding, however, on the IRS or the courts. Prospective investors are urged to consult their tax advisors regarding the U.S. federal income tax consequences of an investment in a unit, and the allocation of the purchase price paid for a unit.

Treatment of the Pre-Funded Warrants

The exercise price for the pre-funded warrants is pre-paid and only a nominal amount must be paid in connection with an exercise. Therefore, we expect that the pre-funded warrants will be treated as equity under general U.S. federal income tax principles and the discussion below applicable to the common stock would generally be applicable to the pre-funded warrants.

Distributions on our Common Stock

We do not expect to declare or pay any distributions on our common stock in the foreseeable future. If we do make any distributions on shares of our common stock, however, such distributions will be includible in the gross income of a U.S. holder as ordinary dividend income to the extent paid out of current or accumulated earnings and profits, as determined for U.S. federal income tax purposes. Any portion of a distribution in excess of current or accumulated earnings and profits would be treated as a return of the holder's tax basis in its common stock and then as gain from the sale or exchange of the common stock. Under current law, if certain requirements are met, a preferential U.S. federal income tax rate will apply to any dividends paid to a holder of common stock who is a U.S. individual.

Distributions to U.S. holders that are corporate shareholders, constituting dividends for U.S. federal income tax purposes, may qualify for the dividends received deduction, or DRD, which is generally available to corporate shareholders. No assurance can be given that we will have sufficient earnings and profits (as determined for U.S. federal income tax purposes) to cause any distributions to be eligible for a DRD. In addition, a DRD is available only if certain holding periods and other taxable income requirements are satisfied.

Sale of Common Stock or Warrants

A U.S. holder of common stock or warrants will generally recognize gain or loss on the taxable sale, exchange, or other taxable disposition of such stock or warrants in an amount equal to the difference between such U.S. holder's amount realized on the sale and its adjusted tax basis in the common stock or warrants sold. A U.S. holder's

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amount realized should equal the amount of cash and the fair market value of any property received in consideration of its stock or warrants. The gain or loss should be capital gain or loss and should be long-term capital gain or loss if the common stock or warrants are held for more than one year at the time of disposition. The deductibility of capital losses for U.S. federal income tax purposes is subject to limitations under the Code. Under current law, long-term capital gain recognized by an individual U.S. holder is generally eligible for a preferential U.S. federal income tax rate.

Exercise or Lapse of Series A Warrants or Series B Warrants

Except as discussed below with respect to a cashless exercise of a warrant or with respect to cash in lieu of a fractional share, upon the exercise of a Series A warrant for common stock or Series B warrant for common stock, a U.S. holder generally will not recognize gain or loss and will have a tax basis in the common stock received upon exercise equal to the U.S. holder's tax basis in the Series A warrant or Series B warrant, as applicable, plus the exercise price of the Series A warrant or Series B warrant, as applicable, less any portion of the tax basis attributable to receipt of cash in lieu of a fractional share. The holding period for the common stock purchased pursuant to the exercise of a Series A warrant or Series B warrant, as applicable, will begin on the date following the date of exercise and will not include the period during which the U.S. holder held the applicable warrant. If a Series A warrant or Series B warrant is allowed to lapse unexercised, a U.S. holder will recognize a capital loss in an amount equal to its tax basis in the applicable warrant. Such loss will be long-term capital loss if the applicable warrant has been held for more than one year as of the date the applicable warrant lapsed. The deductibility of capital losses is subject to certain limitations. Your receipt of cash in lieu of a fractional share of common stock will generally be treated as if you received the fractional share and then received such cash in redemption of such fractional share. Such redemption will generally result in the recognition of capital gain or loss equal to the difference between the amount of cash received and your adjusted U.S. federal income tax basis in the Series A warrant or Series B warrant, as applicable, that is allocable to the fractional share you are deemed to have received.

The tax treatment of a cashless exercise of a Series A warrant or Series B warrant (i.e., where a portion of the holder's warrants are surrendered (the *Surrendered Warrants*) as the exercise price for other warrants to be exercised (the *Exercised Warrants*) as described above under *Description of Securities Warrants Exercise*) is uncertain. Although the matter is not free from doubt, a cashless exercise should be treated as a tax-free transaction in which a holder's tax basis in the common stock received should equal the sum of the U.S. holder's tax basis in the *Surrendered Warrants* and the *Exercised Warrants*. It is also possible, however, that a cashless exercise could be treated as a taxable transaction, and a U.S. Holder could recognize taxable gain or loss in an amount equal to the difference between the exercise price deemed paid and such U.S. holder's tax basis in the *Surrendered Warrants*. In this case, a U.S. Holder's tax basis in the common stock received should equal the sum of the exercise price deemed paid and the U.S. Holder's tax basis in the applicable warrants exercised.

The holding period for common stock acquired in a cashless exercise will depend on the U.S. federal income tax treatment of a cashless exercise. The holding period for a share of common stock acquired in a cashless exercise would include the holding period of the *Surrendered Warrants* and *Exercised Warrants* if the cashless exercise is treated as a tax-free transaction. The holding period for a share of common stock acquired in a cashless exercise would begin on the day following the date of exercise if the cashless exercise is treated as a taxable exchange or treated similarly to a cash exercise (even if otherwise a tax-free transaction). Due to the absence of authority on the U.S. federal income tax treatment of a cashless exercise, there can be no assurance which, if any, of the alternative tax consequences and holding periods described above would be adopted by the IRS or a court of law. Accordingly, holders are urged to consult their tax advisors as to the tax consequences of a cashless exercise.

Certain Adjustments to Warrants

Under Section 305 of the Code, an adjustment to the number of shares of common stock that will be issued on the exercise of the warrants, including pre-funded warrants, or an adjustment to the exercise price of the warrants, may be treated as a constructive distribution to a U.S. holder of the warrants if, and to the extent that, such adjustment has the effect of increasing such U.S. holder's proportionate interest in our earnings and profits or assets, depending on the circumstances of such adjustment (for example, if such adjustment is to compensate for a distribution of cash or other property to our shareholders). Adjustments to the exercise price of a warrant made pursuant to a bona fide reasonable adjustment formula that has the effect of preventing dilution of the interest of the holders of the warrants should generally not result in a constructive distribution.

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Information Reporting and Backup Withholding

Information reporting requirements generally will apply to payments of dividends on shares of common stock and to the proceeds of a sale of common stock and warrants unless a U.S. holder is an exempt recipient, such as a corporation. Backup withholding will apply to those payments if a U.S. holder fails to provide its correct taxpayer identification number and certification of exempt status, or fails to report in full dividend income. Any amounts withheld under the backup withholding rules will be allowed as a refund or a credit against U.S. federal income tax liability, provided the required information is timely furnished to the IRS.

The preceding discussion of U.S. federal tax considerations is for general information only. It is not tax advice. Each prospective investor should consult its own tax advisor regarding the particular U.S. federal, state and local and non-U.S. tax consequences of purchasing, holding and disposing of our common stock or warrants, including the consequences of any proposed change in applicable laws.

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Certain Adjustments to Warrants

Under Section 305 of the Code, an adjustment to the number of ordinary shares that will be issued on the exercise of the warrants, or an adjustment to the exercise price of the warrants, may be treated as a constructive

distribution to a non-U.S. holder of the warrants if, and to the extent that, such adjustment has the effect of increasing such non-U.S. holder's proportionate interest in our earnings and profits or assets, depending on the circumstances of such adjustment (for example, if such adjustment is to compensate for a distribution of cash or other property to our shareholders). Adjustments to the exercise price of a warrant made pursuant to a bona fide reasonable adjustment formula that has the effect of preventing dilution of the interest of the holders of the warrants should generally not result in a constructive distribution.

Information Reporting and Backup Withholding

We must report annually to the IRS and to each non-U.S. holder the gross amount of the distributions on our common stock paid to such holder and the tax withheld, if any, with respect to such distributions. Non-U.S. holders may have to comply with specific certification procedures to establish that the holder is not a U.S. person (as defined in the Code) in order to avoid backup withholding at the applicable rate with respect to dividends on our common stock. Dividends paid to non-U.S. holders subject to withholding of U.S. federal income tax, as described above in *Distributions on Our Common Stock*, generally will be exempt from U.S. backup withholding.

Information reporting and backup withholding will generally apply to the proceeds of a disposition of our common stock or warrants by a non-U.S. holder effected by or through the U.S. office of any broker, U.S. or foreign, unless the holder certifies its status as a non-U.S. holder and satisfies certain other requirements, or otherwise establishes an exemption. Generally, information reporting and backup withholding will not apply to a payment of disposition proceeds to a non-U.S. holder where the transaction is effected outside the United States through a non-U.S. office of a broker. However, for information reporting purposes, dispositions effected through a non-U.S. office of a broker with substantial U.S. ownership or operations generally will be treated in a manner similar to dispositions effected through a U.S. office of a broker. Non-U.S. holders should consult their own tax advisors regarding the application of the information reporting and backup withholding rules to them.

Copies of information returns may be made available to the tax authorities of the country in which the non-U.S. holder resides or is incorporated under the provisions of a specific treaty or agreement. Backup withholding is not an additional tax. Any amounts withheld under the backup withholding rules from a payment to a non-U.S. holder can be refunded or credited against the non-U.S. holder's U.S. federal income tax liability, if any, provided that an appropriate claim is filed with the IRS in a timely manner.

Withholding on Foreign Accounts

Legislation known as the Foreign Account Tax Compliance Act and guidance issued thereunder (*FATCA*) imposes withholding taxes on certain types of payments made to foreign financial institutions and certain other foreign entities (including financial intermediaries). FATCA generally imposes withholding at a rate of 30% on payments to certain foreign entities of dividends (including deemed dividends on warrants) on our common stock and the gross proceeds of dispositions of our common stock or warrants, unless various U.S. information

reporting and due diligence requirements (generally relating to ownership by U.S. persons of interests in or accounts with those entities) have been satisfied or the entity otherwise qualifies for an exemption. An intergovernmental agreement between the United States and an applicable foreign country may modify these requirements. These

withholding rules generally apply to payments of dividends on common stock, and to payments of gross proceeds from a sale or other disposition our common stock or warrants made on or after January 1, 2019. You should consult your tax advisor regarding the application of FATCA.

The preceding discussion of U.S. federal tax considerations is for general information only. It is not tax advice. Each prospective investor should consult its own tax advisor regarding the particular U.S. federal, state and local and non-U.S. tax consequences of purchasing, holding and disposing of our common stock or warrants, including the consequences of any proposed change in applicable laws.

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PLAN OF DISTRIBUTION

Pursuant to an engagement letter agreement dated February 2, 2018, we have engaged H.C. Wainwright & Co., LLC, or Wainwright or the placement agent, to act as our exclusive placement agent in connection with this offering of our shares of common stock and warrants pursuant to this prospectus supplement and accompanying prospectus. Under the terms of the engagement agreement, the placement agent has agreed to be our exclusive placement agent, on a reasonable best efforts basis, in connection with the issuance and sale by us of our shares of common stock and the warrants in this takedown from our shelf registration statement. The terms of this offering were subject to market conditions and negotiations between us, the placement agent and prospective investors. The engagement agreement does not give rise to any commitment by the placement agent to purchase any of our securities, and the placement agent will have no authority to bind us by virtue of the engagement agreement. Further, the placement agent does not guarantee that it will be able to raise new capital in any prospective offering. The placement agent may engage sub-agents or selected dealers to assist with the offering.

We will enter into securities purchase agreements directly with investors in connection with this offering, and we will only sell to investors who have entered into securities purchase agreements.

We expect to deliver the shares of our common stock and warrants being offered pursuant to this prospectus supplement within two business days of the resumption of quotations of our common stock on a U.S. trading market.

We have agreed to pay the placement agent a total cash fee equal to 6.0% of the gross proceeds of this offering. We will also pay the placement agent an expense allowance of up to \$50,000 for legal fees and other out-of-pocket expenses. We estimate the total expenses payable by us for this offering will be approximately \$ _____, which amount excludes the placement agent's fees.

We have also agreed to give the placement agent, subject to the completion of this offering, a right of first refusal to act as lead manager, lead underwriter or lead placement agent, for a period of twelve months.

Pursuant to the securities purchase agreements, subject to certain exceptions, we have agreed not to issue, enter into any agreement to issue or announce the issuance or proposed issuance of any shares of common stock or common stock equivalents for a period of 90 days following the consummation of this offering. In addition, our executive officers and directors have agreed, subject to certain exceptions, not to offer, sell, agree to sell, directly or indirectly, or otherwise dispose of any shares or common stock, warrants or any other securities convertible into or exchangeable for common stock for a period of 90 days after the consummation of this offering.

We have agreed to indemnify the placement agent and specified other persons against certain liabilities relating to or arising out of the placement agent's activities under the placement agency agreement and to contribute to payments that the placement agent may be required to make in respect of such liabilities.

The placement agent may be deemed to be an underwriter within the meaning of Section 2(a)(11) of the Securities Act, and any commissions received by it and any profit realized on the resale of the securities sold by it while acting as principal might be deemed to be underwriting discounts or commissions under the Securities Act. As an underwriter, the placement agent would be required to comply with the requirements of the Securities Act and the Exchange Act, including, without limitation, Rule 415(a)(4) under the Securities Act and Rule 10b-5 and Regulation M under the Exchange Act. These rules and regulations may limit the timing of purchases and sales of shares of common stock and warrants by the placement agent acting as principal. Under these rules and regulations, the placement agent:

may not engage in any stabilization activity in connection with our securities; and

may not bid for or purchase any of our securities or attempt to induce any person to purchase any of our securities, other than as permitted under the Exchange Act, until it has completed its participation in the distribution.

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From time to time, the placement agent may provide in the future various advisory, investment and commercial banking and other services to us in the ordinary course of business, for which they have received and may continue to receive customary fees and commissions. However, except as disclosed in this prospectus, we have no present arrangements with the placement agent for any further services.

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LEGAL MATTERS

The validity of the securities offered hereby has been passed upon for us by Goodwin Procter LLP, Boston, Massachusetts. Ellenoff Grossman & Schole LLP, New York, New York is representing the placement agent in connection with this offering.

EXPERTS

The consolidated financial statements and the related financial statement schedule, incorporated in this prospectus supplement by reference from BioAmber Inc.'s Annual Report on Form 10-K for the year ended December 31, 2016 have been audited by Deloitte LLP, an independent registered public accounting firm, as stated in their reports, which are incorporated herein by reference. Such financial statements and financial statement schedule have been so incorporated in reliance upon the reports of such firm given upon their authority as experts in accounting and auditing.

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PROSPECTUS

\$100,000,000

Common Stock, Preferred Stock, Debt Securities, Warrants or Units

From time to time, we may offer up to \$100,000,000 of any combination of the securities described in this prospectus, either individually or in units. Each time we offer securities, we will provide the specific terms of the securities offered in one or more supplements to this prospectus. We may also authorize one or more free writing prospectuses to be provided to you in connection with these offerings. The prospectus supplement and any related free writing prospectus may also add, update or change information contained in this prospectus. You should carefully read this prospectus, the applicable prospectus supplement and any related free writing prospectus, as well as any documents incorporated by reference, before buying any of the securities being offered.

The securities offered by this prospectus may be sold directly by us to investors, through agents designated from time to time or to or through underwriters or dealers. We will set forth the names of any underwriters or agents and any applicable fees, commissions, discounts and over-allotments in an accompanying prospectus supplement. For additional information on the methods of sale, you should refer to the section entitled Plan of Distribution in this prospectus and in the applicable prospectus supplement. The price to the public of such securities and the net proceeds we expect to receive from such sale will also be set forth in a prospectus supplement.

Our common stock is traded on the New York Stock Exchange under the symbol BIOA. On December 30, 2016, the last reported sale price of our common stock on the New York Stock Exchange was \$5.50 per share. The applicable prospectus supplement will contain information, where applicable, as to any other listing, if any, on the New York Stock Exchange or any securities market or other exchange of the securities covered by the applicable prospectus supplement.

Investing in our securities involves a high degree of risk. You should review carefully the risks and uncertainties referenced under the heading Risk Factors on page 10 of this prospectus as well as those contained in the applicable prospectus supplement and any related free writing prospectus, and in the other documents that are incorporated by reference into this prospectus.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

The date of this prospectus is January 12, 2017.

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ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement on Form S-3 that we filed with the Securities and Exchange Commission, or the SEC, utilizing a shelf registration process. Under this shelf registration process, we may offer shares of our common stock and preferred stock, various series of warrants to purchase common stock or preferred stock and debt securities, either individually or in units, in one or more offerings, up to a total dollar amount of \$100,000,000. This prospectus provides you with a general description of the securities we may offer. Each time we offer a type or series of securities under this prospectus, we will provide a prospectus supplement that will contain more specific information about the specific terms of the offering. We may also authorize one or more free writing prospectuses to be provided to you that may contain material information relating to these offerings. Each such prospectus supplement and any related free writing prospectus that we may authorize to be provided to you may also add, update or change information contained in this prospectus or in documents incorporated by reference into this prospectus. We urge you to carefully read this prospectus, any applicable prospectus supplement and any related free writing prospectus, together with the information incorporated herein by reference as described under the headings **Where You Can Find Additional Information** and **Incorporation of Certain Information by Reference** before buying any of the securities being offered.

You should rely only on the information contained or incorporated by reference in this prospectus, any applicable prospectus supplement and any related free writing prospectus. We have not authorized anyone to provide you with different information in addition to or different from that contained in this prospectus, any applicable prospectus supplement and any related free writing prospectus. No dealer, salesperson or other person is authorized to give any information or to represent anything not contained in this prospectus, any applicable prospectus supplement or any related free writing prospectus that we may authorize to be provided to you. You must not rely on any unauthorized information or representation. This prospectus is an offer to sell only the securities offered hereby, but only under circumstances and in jurisdictions where it is lawful to do so. You should assume that the information in this prospectus, any applicable prospectus supplement or any related free writing prospectus is accurate only as of the date on the front of the document and that any information incorporated by reference is accurate only as of the date of the document incorporated by reference, regardless of the time of delivery of this prospectus, any applicable prospectus supplement or any related free writing prospectus, or any sale of a security. Our business, financial condition, results of operating and prospects may have changed materially since those dates.

This prospectus contains summaries of certain provisions contained in some of the documents described herein, but reference is made to the actual documents for complete information. All of the summaries are qualified in their entirety by the actual documents. Copies of some of the documents referred to herein have been filed, will be filed or will be incorporated by reference as exhibits to the registration statement of which this prospectus is a part, and you may obtain copies of those documents as described below under the heading **Where You Can Find Additional Information**.

WHERE YOU CAN FIND ADDITIONAL INFORMATION

We post on our public website (www.bio-amber.com) our Annual Report 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, as amended, or the Exchange Act, as soon as reasonably practicable after we electronically file such material with, or furnish it to, the SEC. Our website and the information contained on that site, or connected to that site, are not incorporated into and are not a part of this prospectus.

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You can find, copy and inspect information we file with the SEC at the SEC's public reference room, which is located at 100 F Street, N.E. Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for more information about the operation of the SEC's public reference room. You can also review our electronically filed reports and other information that we file with the SEC on the SEC's website at <http://www.sec.gov>.

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This prospectus is part of a registration statement that we filed with the SEC. The registration statement contained more information than this prospectus regarding us and the securities, including exhibits and schedules. You can obtain a copy of the registration statement from the SEC at any address listed above or from the SEC's website. You should review the information and exhibits in the registration statement for further information on us and our consolidated subsidiary and the securities we are offering. Statements in this prospectus concerning any document we filed as an exhibit to the registration statement or that we otherwise filed with the SEC are not intended to be comprehensive and are qualified by reference to these filings. You should review the complete document to evaluate these statements.

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INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC allows us to incorporate by reference the information we file with it, which means that we can disclose important information to you by referring you to those documents instead of having to repeat the information in this prospectus. The information incorporated by reference is considered to be part of this prospectus, and later information that we file with the SEC will automatically update and supersede this information. We incorporate by reference the documents listed below that we have filed with the SEC:

description of our common stock contained in our Registration Statement on Form 8-A, filed May 1, 2013;

description of our warrants contained in our Registration Statement on Form 8-A/A filed May 9, 2013 and amended on May 10, 2013;

our Annual Report on Form 10-K for the year ended December 31, 2015, filed on March 15, 2016;

our Quarterly Reports on Form 10-Q for the quarterly period ended March 31, 2016, filed on May 9, 2016, for the quarterly period ended June 30, 2016, filed on August 9, 2016, and for the quarterly period ended September 30, 2016, filed on November 7, 2016;

our Proxy Statement on Schedule 14A filed with the SEC on April 6, 2016; and

our Current Reports on Form 8-K filed with the SEC on January 19, 2016, February 12, 2016, February 26, 2016, April 26, 2016 (as amended on August 9, 2016), May 23, 2016, September 14, 2016 and December 29, 2016.

We also incorporate by reference into this prospectus all documents (other than current reports furnished under Item 2.02 or Item 7.01 of Form 8-K and exhibits filed on such form that are related to such items) that are filed by us with the SEC pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act (i) after the date of the initial filing of the registration statement of which this prospectus is a part and prior to effectiveness of the registration statement, or (ii) after the date of this prospectus until we sell all of the shares covered by this prospectus or the sale of shares by us pursuant to this prospectus is terminated.

A statement contained in a document incorporated by reference into this prospectus shall be deemed to be modified or superseded for purposes of this prospectus to the extent that a statement contained in this prospectus, any prospectus supplement or in any other subsequently filed document which is also incorporated in this prospectus modifies or replaces such statement. Any statements so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this prospectus. You should not assume that the information in this prospectus or in the documents incorporated by reference is accurate as of any date other than the date on the front of this prospectus or those documents.

You may request a copy of these documents, orally or in writing, which will be provided to you at no cost by contacting: BioAmber Inc., 1250 Rene Levesque West, Suite 4310, Montreal, Quebec, Canada H3B 4W8, or calling

(514) 844-8000.

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FORWARD-LOOKING STATEMENTS

This prospectus contains statements that are not historical facts and are considered forward-looking within the meaning of Section 27A of the Securities Act of 1933, as amended, or the Securities Act, and Section 21E of the Exchange Act. These forward-looking statements 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, 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. Investors 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;

our ability to maintain an effective system of internal controls and prevent future material weaknesses or significant deficiencies from occurring; and

our ability to maintain and secure adequate funding for our current business activities;

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and other risks and uncertainties referenced under Risk Factors below and in any applicable prospectus supplement or free writing prospectus and any documents incorporated by reference herein or therein. 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 prospectus or the respective dates of documents incorporated herein or therein that include forward-looking statements.

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SUMMARY

This summary highlights selected information from this prospectus or incorporated by reference in this prospectus, and does not contain all of the information that you need to consider in making your investment decision. You should carefully read the entire prospectus, the applicable prospectus supplement and any related free writing prospectus, including the risks of investing in our securities referred to under the heading **Risk Factors** in this prospectus and contained in the applicable prospectus supplement and any related free writing prospectus, and in the other documents that are incorporated by reference into this prospectus. You should also carefully read the information incorporated by reference into this prospectus, including our financial statements, and the exhibits to the registration statement of which this prospectus is a part.

Unless otherwise mentioned or unless the context requires otherwise, throughout this prospectus, any applicable prospectus supplement and any related free writing prospectus, the words **BioAmber**, **we**, **us**, **our**, **the company** or similar references refer to BioAmber Inc. and its subsidiaries; and the term **securities** refers collectively to our common stock, preferred stock, warrants to purchase common stock or preferred stock, debt securities, or any combination of the foregoing securities.

This prospectus and the information incorporated herein by reference includes trademarks, service marks and trade names owned by us or other companies. All trademarks, service marks and trade names included or incorporated by reference into this prospectus, any applicable prospectus supplement or any related free writing prospectus are the property of their respective owners.

Our Company

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.

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 offtake agreements with PTTMCC Biochem for bio-succinic acid produced in our Sarnia facility and with Vinmar for our future manufacturing facilities producing 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 for the production of

bio-succinic acid as our yeast. We have also established other technology licenses and collaborations, including with Johnson Matthey Davy Technologies, or Davy.

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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 our large-scale demonstration facility in Pomacle, France at the end of 2014, where we manufactured our bio-succinic acid from 2010 to 2014, prior to the completion of our Sarnia facility. Our joint venture with Mitsui also contemplates the potential construction and operation of an additional facility, which we expect to occur by 2020.

We are committed to managing our economic, social, environmental and ethical performance through continued sustainable business practices. We have completed a life cycle analysis for our facility in Sarnia that indicates that no carbon dioxide equivalent (greenhouse gases) will be emitted per kilogram of our bio-succinic acid produced, making our process carbon neutral. This is significantly less carbon emission intensive than the current petrochemical process for making succinic acid, in which 7.1 kilograms of carbon dioxide equivalent are emitted per kilogram of succinic acid produced. This represents a 100% reduction in greenhouse gases for our bio-succinic acid process, relative to the current petrochemical process for making succinic acid. The life cycle analysis also indicates that our facility in Sarnia will consume 64% less energy than the current petrochemical process.

We were incorporated in the State of Delaware in October 2008 as DNP Green Technology, Inc. and were established as the result of a spin-off of certain assets from Diversified Natural Products, Inc. In September 2010, we acquired the 50% interest in our joint venture Bioamber S.A.S. that we did not already own, after which, Bioamber S.A.S. became wholly owned by us. Concurrent with this acquisition, the Company changed its name from DNP Green Technology, Inc. to BioAmber Inc. and changed its fiscal year end from June 30 to December 31. Bioamber S.A.S. was wholly owned by the Company until its liquidation in December 2014.

Our principal executive offices are located at 1250 Rene Levesque West, Suite 4310, Montreal, Quebec, Canada H3B 4W8, and our principal research and development facility is located at 1000 Westgate Drive, Suite 117, St. Paul, Minnesota, United States of America, 55447. Our telephone number in the United States is (651) 641-3623 and our telephone number in Canada is (514) 844-8000. Our website address is www.bio-amber.com. We do not incorporate the information on or accessible through our website into this prospectus, and you should not consider any information on, or that can be accessed through, our website as part of this prospectus.

The Securities We May Offer

We may offer shares of our common stock and preferred stock, various series of warrants to purchase common stock or preferred stock and debt securities, in one or more series, as either senior or subordinated debt or as senior or subordinated convertible debt, either individually or in units, with a total value of up to \$100,000,000 from time to time under this prospectus at prices and on terms to be determined at the time of any offering. This prospectus provides you with a general description of the securities we may offer. Each time we offer a type or series of securities under this prospectus, we will provide a prospectus supplement that will describe the specific amounts, prices and other important terms of the securities.

The prospectus supplement and any related free writing prospectus that we may authorize to be provided to you may also add, update or change information contained in this prospectus or in documents we have incorporated by reference. However, no prospectus supplement or free writing prospectus will offer a security that is not registered and described in this prospectus at the time of the effectiveness of the registration statement of which this prospectus is a

part.

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We may sell the securities directly to investors or to or through agents, underwriters or dealers. We and our agents or underwriters, reserve the right to accept or reject all or part of any proposed purchase of securities. If we do offer securities to or through agents or underwriters, we will include in the applicable prospectus supplement:

the names of those agents or underwriters;

applicable fees, discounts and commissions to be paid to them;

details regarding over-allotment options, if any; and

the net proceeds to us.

Common Stock. We may issue shares of our common stock from time to time. Holders of shares of our common stock are entitled to one vote for each share held of record on all matters to be voted on by stockholders and do not have cumulative voting rights. Subject to the preferences that may be applicable to any then outstanding preferred stock, the holders of our outstanding shares of common stock are entitled to receive dividends, if any, as may be declared from time to time by our board of directors out of legally available funds. In the event of our liquidation, dissolution or winding up, holders of our common stock will be entitled to share ratably in the net assets legally available for distribution to stockholders after the payment of all of our debts and other liabilities, subject to the satisfaction of any liquidation preference granted to the holders of any outstanding shares of preferred stock.

Preferred Stock. We may issue shares of our preferred stock from time to time, in one or more series. Our board of directors will determine the rights, preferences and privileges of the shares of each wholly unissued series, and any qualifications, limitations or restrictions thereon, including dividend rights, conversion rights, preemptive rights, terms of redemption or repurchase, liquidation preferences, sinking fund terms and the number of shares constituting any series or the designation of any series. Convertible preferred stock will be convertible into our common stock or exchangeable for other securities. Conversion may be mandatory or at your option and would be at prescribed conversion rates.

If we sell any series of preferred stock under this prospectus, we will fix the rights, preferences and privileges of the preferred stock of such series, as well as any qualifications, limitations or restrictions thereon, in the certificate of designation relating to that series. We will file as an exhibit to the registration statement of which this prospectus is a part, or will incorporate by reference from reports that we file with the SEC, the form of any certificate of designation that describes the terms of the series of preferred stock we are offering before the issuance of that series of preferred stock. We urge you to read the applicable prospectus supplement and any free writing prospectus that we may authorize to be provided to you related to the series of preferred stock being offered, as well as the complete certificate of designation that contains the terms of the applicable series of preferred stock.

Debt Securities. We may issue debt securities, in one or more series, as either senior or subordinated debt or as senior or subordinated convertible debt. In this prospectus, we have summarized certain general features of the debt securities. We urge you, however, to read the applicable prospectus supplement and any free writing prospectus that we may authorize to be provided to you related to the particular series of debt securities being offered, as well as the complete indenture that contains the terms of the debt securities. We will file as exhibits to the registration statement of which this prospectus is a part, the form of indenture and any supplemental agreements that describe the terms of

the series of debt securities we are offering before the issuance of the related series of debt securities.

We may evidence each series of debt securities by indentures we will issue. Debt securities may be issued under an indenture that we enter into with a trustee. We will indicate the name and address of the trustee, if applicable, in the prospectus supplement relating to the particular series of debt securities being offered.

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Warrants. We may issue warrants for the purchase of common stock and/or preferred stock in one or more series. We may issue warrants independently or together with common stock and/or preferred stock and/or debt securities, and the warrants may be attached to or separate from these securities. In this prospectus, we have summarized certain general features of the warrants. We urge you, however, to read the applicable prospectus supplement and any free writing prospectus that we may authorize to be provided to you related to the particular series of warrants being offered, as well as the complete warrant agreements and warrant certificates that contain the terms of the warrants. Forms of the warrant agreements and forms of warrant certificates containing the terms of the warrants being offered will be filed as exhibits to the registration statement of which this prospectus is a part or will be incorporated by reference from reports that we file with the SEC.

We will evidence each series of warrants by warrant certificates that we will issue. Warrants may be issued under an applicable warrant agreement that we enter into with a warrant agent. We will indicate the name and address of the warrant agent, if applicable, in the prospectus supplement relating to the particular series of warrants being offered.

Units. We may issue, in one or more series, units consisting of common stock, preferred stock, debt securities and/or warrants for the purchase of common stock and/or preferred stock in any combination. In this prospectus, we have summarized certain general features of the units. We urge you, however, to read the applicable prospectus supplement (and any free writing prospectus that we may authorize to be provided to you) related to the series of units being offered, as well as the complete unit agreement that contains the terms of the units. We will file as exhibits to the registration statement of which this prospectus is a part, or will incorporate by reference from reports that we file with the SEC, the form of unit agreement and any supplemental agreements that describe the terms of the series of units we are offering before the issuance of the related series of units.

We will evidence each series of units by unit certificates that we will issue. Units may be issued under a unit agreement that we enter into with a unit agent. We will indicate the name and address of the unit agent, if applicable, in the prospectus supplement relating to the particular series of units being offered.

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RISK FACTORS

Investing in our securities involves a high degree of risk. Before purchasing our securities, you should carefully consider the risks and uncertainties set forth under the heading "Risk Factors" in our Annual Report on Form 10-K for the fiscal year ended December 31, 2015, filed with the SEC on March 15, 2016 and our Quarterly Reports on Form 10-Q for the fiscal quarter ended March 31, 2016, filed with the SEC on May 9, 2016, for the fiscal quarter ended June 30, 2016, filed with the SEC on August 9, 2016, and for the fiscal quarter ended September 30, 2016, filed with the SEC on November 7, 2016 which are incorporated by reference in this prospectus, as well as any updates thereto contained in subsequent filings with the SEC or any applicable prospectus supplement or free writing prospectus. If any of these risks were to occur, our business, financial condition or results of operations would likely suffer. In that event, the value of our securities could decline, and you could lose all or part of your investment.

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RATIO OF EARNINGS TO FIXED CHARGES

Our ratio of earnings to fixed charges for each of the five most recently completed fiscal years and any required interim periods will each be specified in a prospectus supplement or in a document that we file with the SEC and incorporate by reference pertaining to the issuance, if any, by us of preference securities in the future.

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USE OF PROCEEDS

Except as described in any prospectus supplement or in any related free writing prospectus that we may authorize to be provided to you, the net proceeds received by us from our sale of the securities described in this prospectus will be added to our general funds and will be used for our general corporate purposes. From time to time, we may engage in additional public or private financings of a character and amount which we may deem appropriate.

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DILUTION

If there is a material dilution of the purchasers' equity interest from the sale of common equity securities offered under this prospectus, we will set forth in any prospectus supplement the following information regarding any such material dilution of the equity interests of purchasers' securities in an offering under this prospectus:

the net tangible book value per share of our equity securities before and after the offering;

the amount of the increase in such net tangible book value per share attributable to the cash payments made by the purchasers in the offering; and

the amount of the immediate dilution from the public offering price which will be absorbed by such purchasers.

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PLAN OF DISTRIBUTION

We may sell the securities from time to time pursuant to underwritten public offerings, negotiated transactions, block trades or a combination of these methods. We may sell the securities to or through underwriters or dealers, through agents, or directly to one or more purchasers. We may distribute securities from time to time in one or more transactions:

at a fixed price or prices, which may be changed;

at market prices prevailing at the time of sale;

at prices related to such prevailing market prices; or

at negotiated prices.

Each time we offer and sell securities, we will provide a prospectus supplement that will set forth the terms of the offering of the securities, including:

the name or names of the underwriters, if any;

the purchase price of the securities and the proceeds we will receive from the sale;

any over-allotment options under which underwriters may purchase additional securities;

any agency fees or underwriting discounts and other items constituting agents or underwriters compensation;

any public offering price;

any discounts or concessions allowed or re-allowed or paid to dealers; and

any securities exchange or market on which the securities may be listed.

If underwriters are used in the sale, they will acquire the securities for their own account and may resell the securities from time to time in one or more transactions at a fixed public offering price or at varying prices determined at the time of sale. The obligations of the underwriters to purchase the securities will be subject to the conditions set forth in the applicable underwriting agreement. We may offer the securities to the public through underwriting syndicates represented by managing underwriters or by underwriters without a syndicate. Subject to certain conditions, the

underwriters will be obligated to purchase all of the securities offered by the prospectus supplement, other than securities covered by any over-allotment option. Any public offering price and any discounts or concessions allowed or re-allowed or paid to dealers may change from time to time. We may use underwriters with whom we or they have a material relationship. The prospectus supplement, naming the underwriter, will describe the nature of any such relationship.

We may sell securities directly or through agents we or they designate from time to time. The prospectus supplement will name any agent involved in the offering and sale of securities and any commissions we will pay to them. Unless the prospectus supplement states otherwise, any agent will be acting on a best-efforts basis for the period of its appointment.

We may authorize agents or underwriters to solicit offers by certain purchasers to purchase securities from us or them at the public offering price set forth in the prospectus supplement pursuant to delayed delivery contracts providing for payment and delivery on a specified date in the future. The prospectus supplement will set forth the conditions to these contracts and any commissions we must pay for solicitation of these contracts.

We may engage in at the market offerings into an existing trading market in accordance with Rule 415(a)(4) under the Securities Act.

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We may provide agents and underwriters with indemnification against civil liabilities, including liabilities under the Securities Act, or contribution with respect to payments that the agents or underwriters may make with respect to these liabilities. Agents and underwriters may engage in transactions with, or perform services for, us in the ordinary course of business.

All securities we may offer, other than common stock, will be new issues of securities with no established trading market. Any underwriters may make a market in these securities, but will not be obligated to do so and may discontinue any market making at any time without notice. We cannot guarantee the liquidity of the trading markets for any securities.

Any underwriter may engage in over-allotment, stabilizing transactions, short-covering transactions and penalty bids in accordance with Regulation M under the Exchange Act. Over-allotment involves sales in excess of the offering size, which create a short position. Stabilizing transactions permit bids to purchase the underlying security so long as the stabilizing bids do not exceed a specified maximum price. Syndicate-covering or other short-covering transactions involve purchases of the securities, either through exercise of the over-allotment option or in the open market after the distribution is completed, to cover short positions. Penalty bids permit the underwriters to reclaim a selling concession from a dealer when the securities originally sold by the dealer are purchased in a stabilizing or covering transaction to cover short positions. Those activities may cause the price of the securities to be higher than it would otherwise be. If commenced, the underwriters may discontinue any of the activities at any time.

Any underwriters that are qualified market makers on the New York Stock Exchange, or NYSE, may engage in passive market making transactions in the common stock on the NYSE in accordance with Regulation M under the Exchange Act, during the business day prior to the pricing of the offering, before the commencement of offers or sales of the common stock. Passive market makers must comply with applicable volume and price limitations and must be identified as passive market makers. In general, a passive market maker must display its bid at a price not in excess of the highest independent bid for such security; if all independent bids are lowered below the passive market maker's bid, however, the passive market maker's bid must then be lowered when certain purchase limits are exceeded. Passive market making may stabilize the market price of the securities at a level above that which might otherwise prevail in the open market and, if commenced, may be discontinued at any time.

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DESCRIPTION OF CAPITAL STOCK

General

Our authorized capital stock consists of 250,000,000 shares of common stock, \$0.01 par value per share, and 5,000,000 shares of preferred stock, \$0.01 par value per share. As of December 31, 2016, there were 30,612,733 shares of our common stock outstanding, warrants issued in our December 2016 offering to purchase an aggregate of 2,224,199 shares of common stock, warrants issued as part of the units in our initial public offering, or IPO warrants, to purchase 4,000,000 shares of our common stock and warrants issued prior to our initial public offering, or legacy warrants, to purchase 739,463 shares of our common stock outstanding.

The following summary description of our capital stock is based on the provisions of our amended and restated certificate of incorporation, amended and restated bylaws, form of IPO warrant, legacy warrants and the applicable provisions of the Delaware General Corporation Law. This information is qualified entirely by reference to the applicable provisions of our amended and restated certificate of incorporation, amended and restated bylaws, form of IPO warrant, legacy warrants and the Delaware General Corporation Law. For information on how to obtain copies of our amended and restated certificate of incorporation and amended and restated bylaws, which are exhibits to the registration statement of which this prospectus is a part, see [Where You Can Find Additional Information](#) and [Incorporation of Certain Information by Reference](#).

Common Stock

Holders of our common stock are entitled to one vote for each share of common stock held of record for the election of directors and on all matters submitted to a vote of stockholders. Holders of our common stock do not have cumulative voting rights in the election of directors. Holders of our common stock are entitled to receive dividends ratably, if any, as may be declared by our board of directors out of legally available funds, subject to any preferential dividend rights of any preferred stock then outstanding. Upon our dissolution, liquidation or winding up, holders of our common stock are entitled to share ratably in our net assets legally available after the payment of all our debts and other liabilities, subject to the preferential rights of any preferred stock then outstanding. Holders of our common stock have no preemptive, subscription, redemption or conversion rights. There are no sinking fund provisions applicable to our common stock. The rights, preferences and privileges of holders of common stock are subject to, and may be adversely affected by, the rights of the holders of shares of any series of preferred stock that we may designate and issue in the future. Except as described under [Antitakeover Effects of Delaware Law, Provisions of our Amended and Restated Certificate of Incorporation and Amended and Restated By-laws and French Law Takeover Regulations](#) below, a majority vote of the holders of common stock is generally required to take action under our amended and restated certificate of incorporation and amended and restated by-laws.

IPO Warrants

The following description of our IPO warrants is subject to, and qualified in its entirety by, the form of IPO warrant, which was filed as an exhibit to our registration statement on Form S-1, file number 333-177917. You should review a copy of the form of IPO warrant for a complete description of the terms and conditions applicable to the IPO warrants.

Term. The IPO warrants are exercisable during the period beginning on August 8, 2013 and ending at 5:30 P.M. on May 9, 2017. The term can also be extended by us at our sole discretion.

Anti-Dilution Protection. The IPO 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 IPO warrants, with certain exceptions.

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Exercise Price. The exercise price of the IPO warrants was initially \$11.00 per whole share of common stock. On May 6, 2015, we completed the closing of a follow-on public offering and issued 3,900,000 shares of common stock, at an offering price to the public of \$9.00 per share. The completion of this follow-on public offering triggered an adjustment to the exercise price of the outstanding IPO warrants. The exercise price of the IPO warrants was reduced from \$11.00 per whole share of common stock to \$9.00 per whole share of common stock, pursuant to the terms of such warrants. 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 exercise price of the IPO warrants was reduced from \$9.00 per whole share of common stock to \$5.00 per whole share of common stock, pursuant to the terms of such warrants. On December 29, 2016, we completed the closing of underwritten registered offerings and issued 1,748,750 shares of common stock, at an offering price of \$4.00 per share, and warrants to purchase 2,224,199 shares of common stock at an initial exercise price of \$4.00 per share. The exercise price of the IPO warrants was reduced from \$5.00 per whole share of common stock to \$4.00 per whole share of common stock, pursuant to the terms of such warrants. The exercise price is subject to appropriate adjustment in the event of certain stock dividends and distributions, stock splits, stock combinations, stock issuances, reclassifications or similar events affecting our common stock, as well as the anti-dilution protection described above. The exercise price can also be lowered by us at our sole discretion.

Exercisability. The IPO warrants became exercisable on August 8, 2013 and are exercisable at any time during the applicable term of the IPO warrant. The IPO warrants are exercisable, at the option of each holder, in whole or in part, by delivering to us a duly executed exercise notice accompanied by payment in full for the number of shares of our common stock purchased upon such exercise.

No Fractional Shares. No fractional shares or scrip representing fractional shares shall be issued upon the exercise of the IPO warrants. As to any fraction of a share which the holder would otherwise be entitled to purchase upon such exercise, we shall, at our election, either pay a cash adjustment in respect of such final fraction in an amount equal to such fraction multiplied by the exercise price of the IPO warrant or round up to the next whole share.

Transferability. Subject to applicable laws and the restriction on transfer set forth in the IPO warrants, the IPO warrants may be transferred at the option of the holder upon surrender of the IPO warrants to us together with the appropriate instruments of transfer.

Authorized Shares. During the period the IPO warrants are outstanding, we will reserve from our authorized and unissued common stock a sufficient number of shares to provide for the issuance of shares of common stock underlying the IPO warrants upon the exercise of the IPO warrants.

Exchange Listing. The IPO warrants are listed on NYSE under the symbol BIOA.WS .

Fundamental Transactions. In the event of any fundamental transaction, as described in the IPO warrants and generally including any merger with or into another entity, sale of all or substantially all of our assets, tender offer or exchange offer, or reclassification of our common stock, then upon any subsequent exercise of an IPO warrant the holder shall have the right to receive as alternative consideration, for each share of our common stock that would have been issuable upon such exercise immediately prior to the occurrence of such fundamental transaction, the number of shares of common stock of the successor or acquiring corporation or of BioAmber, if it is the surviving corporation, and any additional consideration receivable upon or as a result of such transaction by a holder of the number of shares of our common stock for which the IPO warrant is exercisable immediately prior to such event. In addition, in the event of a fundamental transaction in which the amount of the alternate consideration is less than the exercise price of the warrant, then we or any successor entity shall pay at the holder's option, exercisable at any time concurrently with or within ninety (90) days after the consummation of the fundamental transaction, an amount of cash equal to the

value of the IPO warrant as determined in accordance with the Black Scholes option pricing model.

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Right as a Stockholder. Except as otherwise provided in the IPO warrants or by virtue of such holder's ownership of shares of our common stock, the holders of the IPO warrants do not have the rights or privileges of holders of our common stock, including any voting rights, until they exercise their IPO warrants.

Waivers and Amendments. Any term of the IPO warrants may be amended or waived with our written consent and the written consent of holders representing 66 2/3% of the shares of common stock issuable upon exercise of the IPO warrants then outstanding. The foregoing notwithstanding, we may extend the termination date and reduce the exercise price without the consent of the holders.

Enforceability of Rights by Holders of IPO Warrants. Each IPO warrant agent will act solely as our agent under the applicable IPO warrant agreement and will not assume any obligation or relationship of agency or trust with any holder of any IPO warrant. A single bank or trust company may act as IPO warrant agent for more than one issue of IPO warrants. A IPO warrant agent will have no duty or responsibility in case of any default by us under the applicable IPO warrant agreement or IPO warrant, including any duty or responsibility to initiate any proceedings at law or otherwise, or to make any demand upon us. Any holder of an IPO warrant may, without the consent of the related IPO warrant agent or the holder of any other IPO warrant, enforce by appropriate legal action its right to exercise, and receive the securities purchasable upon exercise of, its IPO warrants.

Legacy Warrants

As of December 31, 2016, legacy warrants to purchase 264,961 shares of our common stock at an exercise price of \$1.07, legacy warrants to purchase 159,390 shares of our common stock at an exercise price of \$1.43 per share, legacy warrants to purchase 219,264 shares of our common stock at an exercise price of \$5.47 per share, and legacy warrants to purchase 111,434 shares of our common stock at an exercise price of \$8.97 per share were outstanding. Some of these legacy warrants have a net exercise provision under which its holder may, in lieu of payment of the exercise price in cash, surrender the legacy warrant and receive a net amount of shares based on the fair market value of our common stock at the time of exercise of the legacy warrant after deduction of the aggregate exercise price. Each warrant contains provisions for the adjustment of the exercise price and the number of shares issuable upon the exercise of the legacy warrant in the event of certain stock dividends, stock splits, reorganizations, reclassifications and consolidations. Certain legacy warrants contain proportionate adjustment 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 IPO warrants, with certain exceptions. Certain holders of the shares issuable upon exercise of our legacy warrants are entitled to registration rights with respect to such shares as described in greater detail under the heading "Registration Rights" below.

Preferred Stock

Pursuant to our amended and restated certificate of incorporation, our board of directors has the authority, without further action by the stockholders (unless such stockholder action is required by applicable law or NYSE rules), to designate and issue up to 5,000,000 shares of preferred stock in one or more series, to establish from time to time the number of shares to be included in each such series, to fix the rights, preferences and privileges of the shares of each wholly unissued series, and any qualifications, limitations or restrictions thereon, and to increase or decrease the number of shares of any such series, but not below the number of shares of such series then outstanding.

We will fix the rights, preferences and privileges of the preferred stock of each such series, as well as any qualifications, limitations or restrictions thereon, in the certificate of designation relating to that series. We will file as an exhibit to the registration statement of which this prospectus is a part, or will incorporate by reference from reports that we file with the SEC, the form of any certificate of designation that describes the terms of the series of preferred

stock we are offering before the issuance of that series of preferred stock. This description will include:

the title and stated value;

the number of shares we are offering;

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the liquidation preference per share;

the purchase price;

the dividend rate, period and payment date and method of calculation for dividends;

whether dividends will be cumulative or non-cumulative and, if cumulative, the date from which dividends will accumulate;

the procedures for any auction and remarketing, if any;

the provisions for a sinking fund, if any;

the provisions for redemption or repurchase, if applicable, and any restrictions on our ability to exercise those redemption and repurchase rights;

any listing of the preferred stock on any securities exchange or market;

whether the preferred stock will be exchangeable into debt securities, and, if applicable, the exchange price, or how it will be calculated, and the exchange period;

voting rights, if any, of the preferred stock;

preemptive rights, if any;

restrictions on transfer, sale or other assignment, if any;

whether interests in the preferred stock will be represented by depositary shares;

a discussion of any material United States federal income tax considerations applicable to the preferred stock;

the relative ranking and preferences of the preferred stock as to dividend rights and rights if we liquidate, dissolve or wind up our affairs;

any limitations on the issuance of any class or series of preferred stock ranking senior to or on a parity with the series of preferred stock as to dividend rights and rights if we liquidate, dissolve or wind up our affairs; and

any other specific terms, preferences, rights or limitations of, or restrictions on, the preferred stock.

The General Corporation Law of the State of Delaware, the state of our incorporation, provides that the holders of preferred stock will have the right to vote separately as a class (or, in some cases, as a series) on an amendment to our amended and restated certificate of incorporation if the amendment would change the par value, the number of authorized shares of the class or the powers, preferences or special rights of the class or series so as to adversely affect the class or series, as the case may be. This right is in addition to any voting rights that may be provided for in the applicable certificate of designation.

Our board of directors may authorize the issuance of preferred stock with voting or conversion rights that could adversely affect the voting power or other rights of the holders of our common stock. The issuance of preferred stock, while providing flexibility in connection with possible acquisitions and other corporate purposes, could, among other things, have the effect of delaying, deferring or preventing a change in our control and may adversely affect the market price of the common stock and the voting and other rights of the holders of common stock. Additionally, the issuance of preferred stock may have the effect of decreasing the market price of our common stock.

Stock and Warrant Issuances

On June 22, 2009, we issued 35 shares of common stock, a secured convertible promissory note and warrants to purchase 208,985 shares of common stock in a private placement to FCPR Sofinnova Capital VI for gross

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proceeds of \$4,201,000. The note matured October 30, 2009 and was converted into 696,500 shares of common stock in connection with the October 22, 2009 transaction described below. The warrants are exercisable for 208,985 common stock at \$5.74 per share and have a 10 year term.

On October 22, 2009, we issued an aggregate of 2,089,570 shares of common stock in a private placement at a per share price of \$5.74 for aggregate consideration of \$12 million. The transaction included the issuance of 695,500 shares of common stock upon the conversion of a promissory note issued on June 22, 2009 with an aggregate principal amount of \$4 million and a conversion price of \$5.74 per share. The table below sets forth the purchase price and the shares of common stock issued to our directors, executive officers, beneficial owners of more than 5% of our voting capital stock and their affiliates and other holders of registration rights described below under the caption Registration Rights in the transaction.

	Shares of Common Stock	Purchase Price
FCPR Sofinnova Capital VI	1,393,035	\$ 8,000,102(1)
MCVP Technology Fund I, LLC	348,250	1,999,950
Clifton Equities Inc.	87,080	499,839

(1) Includes amounts converted from promissory note issued June 22, 2009.

On November 23, 2010, we issued unsecured convertible promissory notes in a private placement for aggregate proceeds of \$4 million. The promissory notes were converted into an aggregate of 379,155 shares of common stock and warrants to purchase 94,745 shares of common stock at an exercise price of \$10.55 with a 10 year term in connection with the April 15, 2011 transaction described below. The table below sets forth the principal amount of the promissory notes issued to our directors, executive officers, beneficial owners of more than 5% of our voting capital stock and their affiliates and other holders of registration rights described below under the caption Registration Rights as well as the number of shares of common stock and warrants to purchase common stock into which the promissory notes were converted.

	Principal Amount of Promissory Note	Shares of Common Stock	Warrants to Purchase Common Stock
FCPR Sofinnova Capital VI	\$ 2,932,242	278,005	69,475
MCVP Technology Fund I, LLC	\$ 665,128	63,035	15,750
Jean-François Huc	\$ 25,000	2,345	595
Michael Hartmann	\$ 25,000	2,345	595

On April 15, 2011, we issued an aggregate of 4,266,640 shares of common stock and warrants for 94,745 shares of common stock in a private placement at a per share price of \$10.55 for aggregate consideration of \$45 million. The table below sets forth the purchase price and number of shares issued to our directors, executive officers and beneficial owners of more than 5% of our voting capital stock and their affiliates in and other holders of registration rights described below under the caption Registration Rights in the transaction.

	Shares of Common Stock Purchased	Total Purchase Price
Naxamber S.A.	2,370,375	\$ 25,000,006.50
FCPR Sofinnova Capital VI	932,050	\$ 9,830,198.20
Mitsui & Co., Ltd.	758,520	\$ 8,000,002.08
MCVP Technology Fund I, LLC	151,690	\$ 1,599,852.76
Jean-François Huc	2,345	\$ 24,732.38
Mike Hartmann	2,345	\$ 24,732.38
Clifton Equities Inc.	24,570	\$ 699,999.30

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On November 4, 2011, we issued an aggregate of 702,135 shares of common stock in a private placement at a per share price of \$28.49 for aggregate proceeds of approximately \$20 million. The table below sets forth the shares of common stock issued to and the aggregate price paid by our directors, executive officers, beneficial owners of more than 5% of our voting capital stock and their affiliates and other holders of registration rights described below under the caption Registration Rights .

	Shares of Common Stock Purchased	Total Purchase Price
Naxamber S.A.	428,295	\$ 12,200,289
FCPR Sofinnova Capital VI	214,165	\$ 6,100,643
Mitsui & Co., Ltd.	35,105	\$ 999,991
Clifton Equities Inc.	47,425	\$ 500,338

On February 6, 2012, we issued in a private placement an aggregate of 351,050 shares of common stock at a per share cost of \$28.49 to LANXESS Corporation for aggregate consideration of \$10 million.

Registration Rights

The holders of an aggregate of 8,488,213 shares of our common stock, including shares of common stock described above under the caption Stock and Warrant Issuances, shares of common stock issuable upon exercise of our legacy warrants, and/or their permitted transferees, are entitled to rights with respect to the registration of these shares under the Securities Act for resale to the public. These shares are referred to as registrable securities. All of these rights are provided under the terms of our amended and restated shareholders' agreement between us and the holders of these shares, and include demand registration rights, piggyback registration rights and Form S-3 registration rights, in each case as described below.

This registration statement may be used by selling stockholders who acquired shares of our common stock or securities exercisable for shares of our common stock in the transactions described above under the caption Stock and Warrant Issuances or upon the exercise of certain of our legacy warrants. Such selling stockholders, if any, will be identified in accordance with rules promulgated under the Securities Act of 1933, as amended.

Demand Registration Rights

The holders of a majority of the registrable securities, or initiating holders, subject to certain limitations, have the right to demand that we file a registration statement covering the registration of at least 10% of the registrable securities then outstanding and having an aggregate price to the public of not less than \$15.0 million. We will not be required to effect a registration if (1) we have effected three registrations that have been declared effective and have remained effective until the holders have completed the distribution related thereto, (2) our board of directors, in its reasonable judgment, determines that it would be detrimental to us and our stockholders for such registration statement to be effected at such time, in which case we have the right to defer such filing for up to 90 days following receipt of the demand request from the holders and (3) the initiating holders propose to dispose of registrable securities that are immediately registrable on Form S-3.

Piggyback Registration Rights

Subject to certain limitations, if at any time we file a registration statement for a public offering of any of our securities, other than a registration statement relating to our employee benefit plan, a corporate reorganization or other transaction under Rule 145 of the Securities Act, the holders of registrable securities will have the right to include all or any part of their registrable securities in the registration statement. The underwriters of any underwritten offering will have the right to limit the number of shares having registration rights to be included in the registration statement to an amount not below 20% of the total number of shares included in the registration statement.

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Form S-3 Registration Rights

At any time after we become eligible to file a registration statement on Form S-3, any holder or holders of registrable securities for which a Form S-3 is available may require us to file such a registration statement having an aggregate price to the public of not less than \$1.0 million. We are not obligated to file more than two Form S-3 registration statements in any twelve-month period. In addition, we will not be obligated to effect a registration if (1) a Form S-3, is not available for such offering by the holder or holders, (2) our board of directors, in its reasonable judgment, determines that it would be detrimental to us and our stockholders for such registration statement to be effected at such time, in which case we have the right to defer such filing for up to 90 days following receipt of the Form S-3 demand request from the holder or holders and (3) with respect to a particular jurisdiction, we would be required to qualify to do business or to execute a general consent to service of process in effecting such registration, qualification or compliance.

Registration Expenses

We are generally required to bear the expenses of all registrations, including the expense of a single special counsel to the holders of each registration not to exceed \$75,000 per registration. However, we will not be required to pay for underwriting discounts and commissions or expenses in connection with the exercise of demand and piggyback registration rights if the request is subsequently withdrawn by the holders of a majority of the registrable securities, subject to limited exceptions.

Antitakeover Effects of Delaware Law, Provisions of our Amended and Restated Certificate of Incorporation and Amended and Restated By-laws and French Law Takeover Regulations

Certain provisions of the Delaware General Corporation Law and of our amended and restated certificate of incorporation and amended and restated by-laws could have the effect of delaying, deferring or discouraging another party from acquiring control of us. These provisions, which are summarized below, are expected to discourage certain types of coercive takeover practices and inadequate takeover bids and, as a consequence, they might also inhibit temporary fluctuations in the market price of our common stock that often result from actual or rumored hostile takeover attempts. These provisions are also designed in part to encourage anyone seeking to acquire control of us to first negotiate with our board of directors. These provisions might also have the effect of preventing changes in our management. It is possible that these provisions could make it more difficult to accomplish transactions that stockholders might otherwise deem to be in their best interests. However, we believe that the advantages gained by protecting our ability to negotiate with any unsolicited and potentially unfriendly acquirer outweigh the disadvantages of discouraging such proposals, including those priced above the then-current market value of our common stock, because, among other reasons, the negotiation of such proposals could improve their terms.

Delaware Takeover Statute

We are subject to the provisions of Section 203 of the Delaware General Corporation Law. In general, Section 203 prohibits a publicly held Delaware corporation from engaging in a business combination with an interested stockholder for a three-year period following the time that this stockholder becomes an interested stockholder, unless the business combination is approved in a prescribed manner. A business combination includes, among other things, a merger, asset or stock sale or other transaction resulting in a financial benefit to the interested stockholder. An interested stockholder is a person who, together with affiliates and associates, owns, or did own within three years prior to the time of determination of interested stockholder status, 15% or more of the corporation's outstanding voting stock. Under Section 203, a business combination between a corporation and an interested stockholder is prohibited unless it satisfies one of the following conditions:

before the time the stockholder became interested, the board of directors approved either the business combination or the transaction which resulted in the stockholder becoming an interested stockholder;

upon consummation of the transaction which resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of the corporation

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outstanding at the time the transaction commenced, excluding for purposes of determining the voting stock outstanding, shares owned by persons who are directors and also officers, and employee stock plans, in some instances; or

at or after the time the stockholder became interested, the business combination was approved by the board of directors of the corporation and authorized at an annual or special meeting of the stockholders by the affirmative vote of at least two-thirds of the outstanding voting stock which is not owned by the interested stockholder.

Provisions of Our Amended and Restated Certificate of Incorporation and Amended and Restated By-laws

Our amended and restated certificate of incorporation and amended and restated by-laws to be in effect upon completion of this offering will include a number of provisions that may have the effect of delaying, deferring or discouraging another party from acquiring control of us and encouraging persons considering unsolicited tender offers or other unilateral takeover proposals to negotiate with our board of directors rather than pursue non-negotiated takeover attempts. These provisions include the items described below.

Board composition and filling vacancies. In accordance with our amended and restated certificate of incorporation, our board is divided into three classes serving staggered three-year terms, with one class being elected each year. Our amended and restated certificate of incorporation also provides that directors may be removed only for cause and then only by the affirmative vote of the holders of 75% or more of the shares then entitled to vote at an election of directors. Furthermore, any vacancy on our board of directors, however occurring, including a vacancy resulting from an increase in the size of our board, may only be filled by the affirmative vote of a majority of our directors then in office even if less than a quorum.

No written consent of stockholders. Our amended and restated certificate of incorporation provides that all stockholder actions are required to be taken by a vote of the stockholders at an annual or special meeting, and that stockholders may not take any action by written consent in lieu of a meeting. This limit may lengthen the amount of time required to take stockholder actions and would prevent the amendment of our by-laws or removal of directors by our stockholder without holding a meeting of stockholders.

Meetings of stockholders. Our amended and restated by-laws provide that only a majority of the members of our board of directors then in office may call special meetings of stockholders and only those matters set forth in the notice of the special meeting may be considered or acted upon at a special meeting of stockholders. Our amended and restated by-laws limit the business that may be conducted at an annual meeting of stockholders to those matters properly brought before the meeting.

Advance notice requirements. Our amended and restated by-laws establish advance notice procedures with regard to stockholder proposals relating to the nomination of candidates for election as directors or new business to be brought before meetings of our stockholders. These procedures provide that notice of stockholder proposals must be timely given in writing to our corporate secretary prior to the meeting at which the action is to be taken. Generally, to be timely, notice must be received at our principal executive offices not less than 90 days or more than 120 days prior to the first anniversary date of the annual meeting for the preceding year. The notice must contain certain information specified in our amended and restated by-laws.

Adjournment of stockholders meetings. Our amended and restated by-laws give the presiding officer at the stockholders meeting the authority to reschedule or adjourn such meeting if: no quorum is present for the transaction of business; the board determines that an adjournment is necessary or appropriate to enable the stockholders to

consider fully information which the board determines has not been made sufficiently or timely available to stockholders; or the board determines that adjournment is otherwise in the best interests of the company. This limit may lengthen the amount of time required to take stockholder actions.

Amendment to certificate of incorporation and by-laws. As required by the Delaware General Corporation Law, any amendment of our amended and restated certificate of incorporation must first be approved by a majority of

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our board of directors, and if required by law or our amended and restated certificate of incorporation, must thereafter be approved by a majority of the outstanding shares entitled to vote on the amendment, and a majority of the outstanding shares of each class entitled to vote thereon as a class, except that the amendment of the provisions relating to stockholder action, directors, limitation of liability, the exclusive jurisdiction of Delaware courts and the amendment of our amended and restated certificate of incorporation or our amended and restated by-laws must be approved by not less than 75% of the outstanding shares entitled to vote on the amendment, and not less than 75% of the outstanding shares of each class entitled to vote thereon as a class. Our amended and restated by-laws may be amended by the affirmative vote of a majority vote of the directors then in office, subject to any limitations set forth in the by-laws; and may also be amended by the affirmative vote of at least 75% of the outstanding shares entitled to vote on the amendment, or, if the board of directors recommends that the stockholders approve the amendment, by the affirmative vote of the majority of the outstanding shares entitled to vote on the amendment, in each case voting together as a single class.

Undesignated preferred stock. Our amended and restated certificate of incorporation provides for authorized shares of preferred stock. The existence of authorized but unissued shares of preferred stock may enable our board of directors to render more difficult or to discourage an attempt to obtain control of us by means of a merger, tender offer, proxy contest or otherwise. For example, if in the due exercise of its fiduciary obligations, our board of directors were to determine that a takeover proposal is not in the best interests of us or our stockholders, our board of directors could cause shares of preferred stock to be issued without stockholder approval in one or more private offerings or other transactions that might dilute the voting or other rights of the proposed acquirer or insurgent stockholder or stockholder group. In this regard, our amended and restated certificate of incorporation grants our board of directors broad power to establish the rights and preferences of authorized and unissued shares of preferred stock. The issuance of shares of preferred stock could decrease the amount of earnings and assets available for distribution to holders of shares of common stock. The issuance may also adversely affect the rights and powers, including voting rights, of these holders and may have the effect of delaying, deterring or preventing a change in control of us.

Squeeze-Out Provisions

Section 253 of the Delaware General Corporation Law authorizes the board of directors of a Delaware corporation that owns 90% or more of each of the outstanding classes of stock of a subsidiary that are entitled to vote on a merger to merge the subsidiary into itself without any requirement for action to be taken by the board of directors or the stockholders of the subsidiary.

Exclusive Jurisdiction of Delaware Courts

Our amended and restated certificate of incorporation provides that, unless we consent in writing to an alternative forum, the Court of Chancery of the State of Delaware shall be the sole and exclusive forum for (1) any derivative action or proceeding brought on behalf of our company, (2) any action asserting a claim of breach of a fiduciary duty owed by any director, officer or other employee of our company to the company or the company's stockholders, (3) any action asserting a claim arising pursuant to any provision of the Delaware General Corporation Law or our amended and restated certificate of incorporation or our amended and restated by-laws, or (4) any action asserting a claim against our company or any of our directors or officers governed by the internal affairs doctrine. Any person or entity purchasing or otherwise acquiring any interest in shares of our capital stock shall be deemed to have notice of and consented to the forum provisions in our amended and restated certificate of incorporation. However, the enforceability of similar forum provisions in other companies' certificates of incorporation has been challenged in legal proceedings, and it is possible that a court could find these types of provisions to be unenforceable.

Transfer Agent and Registrar

The transfer agent and registrar for our common stock and IPO warrants is Computershare Trust Company, N.A.

Listing

Our common stock is listed on the New York Stock Exchange, or NYSE, under the symbol BIOA.

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DESCRIPTION OF OUR DEBT SECURITIES

The following description, together with the additional information we include in any applicable prospectus supplements or free writing prospectuses that we may authorize to be distributed to purchasers, summarizes the material terms and provisions of the debt securities that we may offer under this prospectus. We may issue debt securities, in one or more series, as either senior or subordinated debt or as senior or subordinated convertible debt. We refer to the senior and subordinated debt and senior and subordinated convertible debt collectively as debt securities. While the terms we have summarized below will generally apply to any future debt securities we may offer under this prospectus, a prospectus supplement or free writing prospectus will describe the particular terms of any debt securities that we may offer in more detail in the applicable prospectus supplement or free writing prospectus. The terms of any debt securities we offer under a prospectus supplement or free writing prospectus may differ from the general terms we describe below.

We may issue senior debt securities from time to time, in one or more series, under a senior indenture to be entered into between us and a senior trustee to be named in a prospectus supplement, which we refer to as the senior trustee. We may issue subordinated debt securities from time to time, in one or more series, under a subordinated indenture to be entered into between us and a subordinated trustee to be named in a prospectus supplement, which we refer to as the subordinated trustee. The forms of senior indenture and subordinated indenture are filed as exhibits to this registration statement of which this prospectus forms a part. Together, the senior indenture and the subordinated indenture are referred to as the indentures and, together, the senior trustee and the subordinated trustee are referred to as the trustees. This prospectus briefly outlines some of the provisions of the indentures.

None of the indentures will limit the amount of debt securities that we may issue. The applicable indenture will provide that debt securities may be issued up to an aggregate principal amount authorized from time to time by us and may be payable in any currency or currency unit designated by us or in amounts determined by reference to an index.

The following summaries of material provisions of the senior debt securities, the subordinated debt securities and the indentures are subject to, and qualified in their entirety by reference to, all of the provisions of the indenture applicable to a particular series of debt securities. We urge you to read the applicable prospectus supplement or free writing prospectus and any related free writing prospectuses related to the debt securities that we may offer under this prospectus, as well as the complete applicable indenture that contains the terms of the debt securities.

General

We will describe in the applicable prospectus supplement or free writing prospectus the terms of the series of debt securities being offered, including:

the title;

the principal amount being offered, and if a series, the total amount authorized and the total amount outstanding;

any limit on the amount that may be issued;

whether or not we will issue the series of debt securities in global form, and, if so, the terms and who the depository will be;

the maturity date;

whether and under what circumstances, if any, we will pay additional amounts on any debt securities held by a person who is not a United States person for tax purposes, and whether we can redeem the debt securities if we have to pay such additional amounts;

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the annual interest rate, which may be fixed or variable, or the method for determining the rate and the date interest will begin to accrue, the dates interest will be payable and the regular record dates for interest payment dates or the method for determining such dates;

whether or not the debt securities will be secured or unsecured, and the terms of any secured debt;

the terms of the subordination of any series of subordinated debt;

the place where payments will be payable;

restrictions on transfer, sale or other assignment, if any;

our right, if any, to defer payment of interest and the maximum length of any such deferral period;

the date, if any, after which, the conditions upon which, and the price at which, we may, at our option, redeem the series of debt securities pursuant to any optional or provisional redemption provisions and the terms of those redemption provisions;

the date, if any, on which, and the price at which we are obligated, pursuant to any mandatory sinking fund or analogous fund provisions or otherwise, to redeem, or at the holder's option, to purchase, the series of debt securities and the currency or currency unit in which the debt securities are payable;

whether the indenture will restrict our ability or the ability of our subsidiaries to:

incur additional indebtedness;

issue additional securities;

create liens;

pay dividends or make distributions in respect of our capital stock or the capital stock of our subsidiaries;

redeem capital stock;

place restrictions on our subsidiaries' ability to pay dividends, make distributions or transfer assets;

make investments or other restricted payments;

sell or otherwise dispose of assets;

enter into sale-leaseback transactions;

engage in transactions with stockholders or affiliates;

issue or sell stock of our subsidiaries; or

effect a consolidation or merger;

whether the indenture will require us to maintain any interest coverage, fixed charge, cash flow-based, asset-based or other financial ratios;

a discussion of certain material or special United States federal income tax considerations applicable to the debt securities;

information describing any book-entry features;

provisions for a sinking fund purchase or other analogous fund, if any;

the applicability of the provisions in the indenture on discharge;

whether the debt securities are to be offered at a price such that they will be deemed to be offered at an original issue discount as defined in paragraph (a) of Section 1273 of the Internal Revenue Code of 1986, as amended;

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the denominations in which we will issue the series of debt securities, if other than denominations of \$1,000 and any integral multiple thereof;

the currency of payment of debt securities if other than U.S. dollars and the manner of determining the equivalent amount in U.S. dollars; and

any other specific terms, preferences, rights or limitations of, or restrictions on, the debt securities, including any additional events of default or covenants provided with respect to the debt securities, and any terms that may be required by us or advisable under applicable laws or regulations or advisable in connection with the marketing of the debt securities.

We may, from time to time, without notice to or the consent of the holders of any series of debt securities, create and issue further debt securities of any such series ranking equally with the debt securities of such series in all respects (or in all respects other than (a) the payment of interest accruing prior to the issue date of such further debt securities or (b) the first payment of interest following the issue date of such further debt securities). Such further debt securities may be consolidated and form a single series with the debt securities of such series and have the same terms as to status, redemption or otherwise as the debt securities of such series.

Certain Terms of the Senior Debt Securities

Conversion or Exchange Rights. We will set forth in the applicable prospectus supplement or free writing prospectus the terms on which a series of senior debt securities may be convertible into or exchangeable for our common stock, our preferred stock or other securities (including securities of a third-party). We will include provisions as to whether conversion or exchange is mandatory, at the option of the holder or at our option. We may include provisions pursuant to which the number of shares of our common stock, our preferred stock or other securities (including securities of a third-party) that the holders of the series of senior debt securities receive would be subject to adjustment.

Consolidation, Merger or Sale. Unless we provide otherwise in the prospectus supplement or free writing prospectus applicable to a particular series of senior debt securities, the senior debt securities will not contain any covenant that restricts our ability to merge or consolidate, or sell, convey, transfer or otherwise dispose of all or substantially all of our assets. However, any successor to or acquirer of such assets must assume all of our obligations under the senior indentures or the senior debt securities, as appropriate. If the senior debt securities are convertible into or exchangeable for other securities of ours or securities of other entities, the person with whom we consolidate or merge or to whom we sell all of our property must make provisions for the conversion of the senior debt securities into securities that the holders of the senior debt securities would have received if they had converted the senior debt securities before the consolidation, merger or sale.

No Protection in the Event of a Change in Control. Unless we indicate otherwise in a prospectus supplement or free writing prospectus applicable to a particular series of senior debt securities, the senior debt securities will not contain any provisions that may afford holders of the senior debt securities protection in the event we have a change in control or in the event of a highly leveraged transaction (whether or not such transaction results in a change in control).

Events of Default. Unless we provide otherwise in the prospectus supplement or free writing prospectus applicable to a particular series of senior debt securities, the following are events of default under the senior indentures with respect to any series of senior debt securities that we may issue:

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if we fail to pay interest when due and payable and our failure continues for 90 days (or such other period as may be specified for such series) and the time for payment has not been extended;

if we fail to pay the principal, premium or sinking fund payment, if any, when due and payable at maturity, upon redemption or repurchase or otherwise (and, if specified for such series, the continuance of such failure for a specified period), and the time for payment has not been extended;

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if we fail to observe or perform any other covenant contained in the senior debt securities or the senior indentures, other than a covenant that is specifically dealt with elsewhere in the senior indenture, and our failure continues for 90 days after we receive notice from the trustee or holders of at least 25% in aggregate principal amount of the outstanding senior debt securities of the applicable series; and

if specified events of bankruptcy, insolvency or reorganization occur.

We will describe in each applicable prospectus supplement or free writing prospectus any additional events of default relating to the relevant series of senior debt securities.

If an event of default with respect to senior debt securities of any series occurs and is continuing, other than an event of default specified in the last bullet point above, the trustee or the holders of at least 25% in aggregate principal amount of the outstanding senior debt securities of that series, by notice to us in writing, and to the trustee if notice is given by such holders, may declare the unpaid principal, premium, if any, and accrued interest, if any, due and payable immediately. If an event of default specified in the last bullet point above occurs with respect to us, the unpaid principal, premium, if any, and accrued interest, if any, of each issue of senior debt securities then outstanding shall be due and payable without any notice or other action on the part of the trustee or any holder.

Unless otherwise specified in the prospectus supplement or free writing prospectus applicable to a particular series of senior debt securities originally issued at a discount, the amount due upon acceleration shall include only the original issue price of the senior debt securities, the amount of original issue discount accrued to the date of acceleration and accrued interest, if any.

The holders of a majority in principal amount of the outstanding senior debt securities of an affected series may waive any default or event of default with respect to the series and its consequences, except defaults or events of default regarding payment of principal, premium, if any, or interest, unless we have cured the default or event of default in accordance with the senior indenture. Any waiver shall cure the default or event of default.

Upon certain conditions, declarations of acceleration may be rescinded and annulled and past defaults may be waived by the holders of a majority in aggregate principal amount of all the senior debt securities of such series affected by the default. Furthermore, prior to a declaration of acceleration and subject to various provisions in the senior indenture, the holders of a majority in aggregate principal amount of a series of senior debt securities, by notice to the trustee, may waive an existing default or event of default with respect to such senior debt securities and its consequences, except a default in the payment of principal of, premium, if any, on or interest on such senior debt securities. Upon any such waiver, such default shall cease to exist, and any event of default with respect to such senior debt securities shall be deemed to have been cured, for every purpose of the senior indenture, but no such waiver shall extend to any subsequent or other default or event of default or impair any right consequent thereto.

The holders of a majority in aggregate principal amount of a series of senior debt securities will have the right to direct the time, method and place of conducting any proceeding for any remedy available to the trustee or exercising any trust or power conferred on the trustee with respect to such senior debt securities. However, the trustee may refuse to follow any direction that conflicts with law or the senior indenture that may involve the trustee in personal liability or that the trustee determines in good faith may be unduly prejudicial to the rights of holders of such series of senior debt securities not joining in the giving of such direction and may take any other action it deems proper that is not inconsistent with any such direction received from holders of such series of senior debt securities. A holder of the senior debt securities of any series will have the right to institute a proceeding under the senior indentures or to appoint a receiver or trustee, or to seek other remedies if:

the holder has given written notice to the trustee of a continuing event of default with respect to that series;

the holders of at least 25% in aggregate principal amount of the outstanding senior debt securities of that series have made written request, and such holders have offered reasonable indemnity to the

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trustee or security satisfactory to it against any loss, liability or expense or to be incurred in compliance with instituting the proceeding as trustee; and

the trustee does not institute the proceeding, and does not receive from the holders of a majority in aggregate principal amount of the outstanding senior debt securities of that series other conflicting directions within 90 days after the notice, request and offer.

These limitations do not apply to a suit instituted by a holder of senior debt securities if we default in the payment of the principal, premium, if any, or interest on, the senior debt securities, or other defaults that may be specified in the applicable prospectus supplement or free writing prospectus.

Modification and Waiver. We and the trustee may amend, supplement or modify a senior indenture or the senior debt securities without the consent of any holders with respect to the following specific matters:

to fix any ambiguity, defect or inconsistency in the senior indenture or to conform the senior indenture or the senior debt securities to the description of senior debt securities of such series set forth in this prospectus or any applicable prospectus supplement or any free writing supplement;

to convey, transfer, assign, mortgage or pledge any assets as security for the senior debt securities of one or more series;

to add to, delete from or revise the conditions, limitations, and restrictions on the authorized amount, terms, or purposes of issue, authentication and delivery of senior debt securities;

to evidence the succession of another corporation, and the assumption by such successor corporation of our covenants, agreements and obligations under the senior indenture;

to provide for or add guarantors with respect to the senior debt securities of any series;

to establish the form of any certifications required to be furnished pursuant to the terms of the senior indenture or any series of senior debt securities, or to add to the rights of the holders of any series of senior debt securities;

to evidence and provide for the acceptance of appointment hereunder by a successor trustee or to make such changes as shall be necessary to provide for or facilitate the administration of the trusts in the senior indenture by more than one trustee;

to make any change to the senior debt securities of any series, so long as no senior debt securities of such series are outstanding

to provide for uncertificated senior debt securities and to make all appropriate changes for such purpose;

to add to our covenants such new covenants, restrictions, conditions or provisions for the benefit of the holders, to make the occurrence, or the occurrence and the continuance, of a default in any such additional covenants, restrictions, conditions or provisions an event of default or to surrender any right or power conferred to us in the senior indenture; or

to change anything that does not materially adversely affect the interests of any holder of senior debt securities of any series.

Other amendments and modifications of the senior indenture or the senior debt securities issued may be made, and our compliance with any provision of the senior indenture with respect to any series of senior debt securities may be waived, with the consent of the holders of a majority of the aggregate principal amount of the outstanding senior debt securities of all series affected by the amendment or modification (voting together as a single class); provided, however, that each affected holder must consent to any modification, amendment or waiver that:

extends the stated maturity of any senior debt securities;

reduces the principal amount, reducing the rate of or extending the time of payment of interest, or reducing any premium payable upon the redemption or repurchase of any senior debt securities;

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reduces the rate or extends the time of payment of interest on any senior debt securities; or

reduces the percentage of senior debt securities, the holders of which are required to consent to any amendment, supplement, modification or waiver.

Satisfaction and Discharge. We can elect satisfy and discharge our obligations with respect to one or more series of senior debt securities, except for specified obligations, including obligations to:

register the transfer or exchange of debt securities of the series;

replace stolen, lost or mutilated debt securities of the series;

maintain paying agencies;

hold monies for payment in trust;

recover excess money held by the trustee;

compensate and indemnify the trustee; and

appoint any successor trustee.

In order to exercise our rights to be discharged, we must deposit with the trustee money or government obligations sufficient to pay all the principal of, any premium and interest on, the senior debt securities of the series on the dates payments are due.

Under current U.S. federal income tax law, the deposit and our legal release from the senior debt securities would be treated as though we took back a holder's senior debt securities and gave such holder his or her share of the cash and debt securities or bonds deposited in trust. In that event, such holder could recognize gain or loss on the senior debt securities such holder gives back to us. Holders of the senior debt securities should consult their own advisers with respect to the tax consequences to them of such deposit and discharge, including the applicability and effect of tax laws other than the U.S. federal income tax law.

Information Concerning the Trustee. The trustee, other than during the occurrence and continuance of an event of default under a senior indenture, undertakes to perform only those duties as are specifically set forth in the applicable senior indenture. Upon an event of default under a senior indenture, the trustee must use the same degree of care as a prudent person would exercise or use in the conduct of his or her own affairs.

Subject to this provision, the trustee is under no obligation to exercise any of the powers given it by the senior indentures at the request of any holder of senior debt securities unless it is offered reasonable security and indemnity against the costs, expenses and liabilities that it might incur.

We may have normal banking relationships with the trustee in the ordinary course of business.

Certain Terms of the Subordinated Debt Securities

Other than the terms of the subordinated indenture and subordinated debt securities relating to subordination or otherwise as described in the prospectus supplement or free writing prospectus relating to a particular series of subordinated debt securities, the terms of the subordinated indenture and subordinated debt securities are identical in all material respects to the terms of the senior indenture and senior debt securities.

Additional or different subordination terms may be specified in the prospectus supplement applicable to a particular series.

Subordination. The indebtedness evidenced by the subordinated debt securities is subordinate to the prior payment in full of all of our senior indebtedness, as defined in the subordinated indenture. During the

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continuance beyond any applicable grace period of any default in the payment of principal, premium, interest or any other payment due on any of our senior indebtedness, we may not make any payment of principal of, or premium, if any, on or interest on the subordinated debt securities (except for certain sinking fund payments). In addition, upon any payment or distribution of our assets upon any dissolution, winding-up, liquidation or reorganization, the payment of the principal of, or premium, if any, on and interest on the subordinated debt securities will be subordinated to the extent provided in the subordinated indenture in right of payment to the prior payment in full of all our senior indebtedness. Because of this subordination, if we dissolve or otherwise liquidate, holders of our subordinated debt securities may receive less, ratably, than holders of our senior indebtedness. The subordination provisions do not prevent the occurrence of an event of default under the subordinated indenture.

Governing Law

The indentures and the debt securities will be governed by and construed in accordance with the internal laws of the State of New York.

Ranking of Debt Securities

The senior debt securities will rank equally in right of payment to all our other senior unsecured debt. The subordinated debt securities will be subordinate and junior in priority of payment to certain of our other indebtedness (including senior debt securities) to the extent described in a prospectus supplement or free writing prospectus.

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DESCRIPTION OF WARRANTS

The following description, together with the additional information we include in any applicable prospectus supplements or free writing prospectuses that we may authorize to be distributed to purchasers, summarizes the material terms and provisions of the warrants that we may offer under this prospectus. Warrants may be offered independently or together with common stock, preferred stock and/or debt securities offered by any prospectus supplement or free writing prospectus, and may be attached to or separate from those securities. While the terms we have summarized below will generally apply to any future warrants we may offer under this prospectus, we will describe the particular terms of any warrants that we may offer in more detail in the applicable prospectus supplement or free writing prospectus. The terms of any warrants we offer under a prospectus supplement or free writing prospectus may differ from the general terms we describe below.

We will file as exhibits to the registration statement of which this prospectus is a part, or will incorporate by reference from reports that we file with the SEC, the form of warrant agreement, including a form of warrant certificate, that describes the terms of the particular series of warrants we are offering before the issuance of the related series of warrants. The following summaries of material provisions of the warrants and the warrant agreements are subject to, and qualified in their entirety by reference to, all the provisions of the warrant agreement and warrant certificate applicable to the particular series of warrants that we may offer under this prospectus. We urge you to read the applicable prospectus supplements related to the particular series of warrants that we may offer under this prospectus, as well as any related free writing prospectuses, and the complete warrant agreements and warrant certificates that contain the terms of the warrants.

General

We will describe in the applicable prospectus supplement the terms of the series of warrants being offered. If warrants for the purchase of debt securities are offered, the prospectus supplement or free writing prospectus will describe the following terms, to the extent applicable:

the offering price and the aggregate number of warrants offered;

the currencies in which the warrants are being offered;

the designation, aggregate principal amount, currencies, denominations and terms of the series of debt securities that can be purchased if a holder exercises a warrant;

the designation and terms of any series of debt securities with which the warrants are being offered and the number of warrants offered with each such debt security;

the date on and after which the holder of the warrants can transfer them separately from the related series of debt securities;

the principal amount of the series of debt securities that can be purchased if a holder exercises a warrant and the price at which and currencies in which such principal amount may be purchased upon exercise;

the terms of any rights to redeem or call the warrants;

the date on which the right to exercise the warrants begins and the date on which such right expires;

federal income tax consequences of holding or exercising the warrants; and

any other specific terms, preferences, rights or limitations of, or restrictions on, the warrants.

Warrants for the purchase of debt securities will be in registered form only.

If warrants for the purchase of common stock or preferred stock are offered, the prospectus supplement or free writing prospectus will describe the following terms, to the extent applicable:

the offering price and aggregate number of warrants offered;

the currency for which the warrants may be purchased;

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if applicable, the designation and terms of the securities with which the warrants are issued and the number of warrants issued with each such security or each principal amount of such security;

if applicable, the date on and after which the warrants and the related securities will be separately transferable;

the number of shares of common stock or preferred stock, as the case may be, purchasable upon the exercise of one warrant and the price at which these shares may be purchased upon such exercise;

the effect of any merger, consolidation, sale or other disposition of our business on the warrant agreements and the warrants;

the terms of any rights to redeem or call the warrants;

any provisions for changes to or adjustments in the exercise price or number of securities issuable upon exercise of the warrants;

the dates on which the right to exercise the warrants will commence and expire;

the manner in which the warrant agreements and warrants may be modified;

the terms of the securities issuable upon exercise of the warrants; and

any other specific terms, preferences, rights or limitations of or restrictions on the warrants.

Before exercising their warrants, holders of warrants will not have any of the rights of holders of the securities purchasable upon such exercise, including the right to receive dividends, if any, or, payments upon our liquidation, dissolution or winding up or to exercise voting rights, if any.

Exercise of Warrants

Each warrant will entitle the holder to purchase the securities that we specify in the applicable prospectus supplement at the exercise price that we describe in the applicable prospectus supplement. Unless we otherwise specify in the applicable prospectus supplement, holders of the warrants may exercise the warrants at any time up to the specified time on the expiration date that we set forth in the applicable prospectus supplement. After the close of business on the expiration date, unexercised warrants will become void.

Holders of the warrants may exercise the warrants by delivering the warrant certificate representing the warrants to be exercised together with specified information, and paying the required amount to the warrant agent in immediately available funds, as provided in the applicable prospectus supplement. We will set forth on the reverse side of the

warrant certificate and in the applicable prospectus supplement the information that the holder of the warrant will be required to deliver to the warrant agent.

Upon receipt of the required payment and the warrant certificate properly completed and duly executed at the corporate trust office of the warrant agent or any other office indicated in the applicable prospectus supplement, we will issue and deliver the securities purchasable upon such exercise. If fewer than all of the warrants represented by the warrant certificate are exercised, then we will issue a new warrant certificate for the remaining amount of warrants. If we so indicate in the applicable prospectus supplement, holders of the warrants may surrender securities as all or part of the exercise price for warrants.

Governing Law

Unless we provide otherwise in the applicable prospectus supplement, the warrants and warrant agreements will be governed by and construed in accordance with the laws of the State of New York.

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Enforceability of Rights by Holders of Warrants

Each warrant agent will act solely as our agent under the applicable warrant agreement and will not assume any obligation or relationship of agency or trust with any holder of any warrant. A single bank or trust company may act as warrant agent for more than one issue of warrants. A warrant agent will have no duty or responsibility in case of any default by us under the applicable warrant agreement or warrant, including any duty or responsibility to initiate any proceedings at law or otherwise, or to make any demand upon us. Any holder of a warrant may, without the consent of the related warrant agent or the holder of any other warrant, enforce by appropriate legal action its right to exercise, and receive the securities purchasable upon exercise of, its warrants.

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DESCRIPTION OF UNITS

The following description, together with the additional information that we include in any applicable prospectus supplements or free writing prospectuses that we may authorize to be distributed to purchasers, summarizes the material terms and provisions of the units that we may offer under this prospectus. We may issue, in one more series, units consisting of common stock, preferred stock, debt securities and/or warrants for the purchase of common stock and/or preferred stock in any combination. While the terms we have summarized below will generally apply to any future series of units we may offer under this prospectus, we will describe the particular terms of any series of units that we may offer in more detail in the applicable prospectus supplement or free writing prospectus. The terms of any series of units we offer under a prospectus supplement or free writing prospectus may differ from the general of terms we described below.

We will file as exhibits to the registration statement of which this prospectus is a part, or will incorporate by reference from reports that we file with the SEC, the form of unit agreement that describes the terms of the series of units we are offering, and any supplemental agreements, before the issuance of the related series of units. The following summaries of material terms and provisions of the units are subject to, and qualified in their entirety by reference to, all the provisions of the unit agreement and any supplemental agreements applicable to a particular series of units. We urge you to read the applicable prospectus supplements related to the particular series of units that we may offer under this prospectus, as well as any related free writing prospectuses and the complete unit agreement and any supplemental agreements that contain the terms of the units.

General

Each unit will be issued so that the holder of the unit is also the holder of each security included in the unit. Thus, the holder of a unit will have the rights and obligations of a holder of each included security. The unit agreement under which a unit is issued may provide that the securities included in the unit may not be held or transferred separately, at any time or at any time before a specified date.

We will describe in the applicable prospectus supplement the terms of the series of units being offered, including:

the designation and terms of the units and of the securities comprising the units, including whether and under what circumstances those securities may be held or transferred separately;

any provisions of the governing unit agreement that differ from those described below in this section; and

any provisions for the issuance, payment, settlement, transfer or exchange of the units or of the securities comprising the units.

The provisions described in this section, as well as those described under **Description of Capital Stock** and **Description of Warrants** will apply to each unit and to any common stock, preferred stock or warrant included in each unit, respectively.

Issuance in Series

We may issue units in such amounts and in such numerous distinct series as we determine.

Enforceability of Rights by Holders of Units

Each unit agent will act solely as our agent under the applicable unit agreement and will not assume any obligation or relationship of agency or trust with any holder of any unit. A single bank or trust company may act as unit agent for more than one series of units. A unit agent will have no duty or responsibility in case of any default by us under the applicable unit agreement or unit, including any duty or responsibility to initiate any proceedings at law or otherwise, or to make any demand upon us. Any holder of a unit may, without the consent

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of the related unit agent or the holder of any other unit, enforce by appropriate legal action its rights as holder under any security included in the unit.

Title

We, and any unit agent and any of their agents, may treat the registered holder of any unit certificate as an absolute owner of the units evidenced by that certificate for any purpose and as the person entitled to exercise the rights attaching to the units so requested, despite any notice to the contrary.

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FORMS OF SECURITIES

General

Each debt security, unit and warrant will be represented either by a certificate issued in definitive form to a particular purchaser or by one or more global securities representing the entire issuance of securities. Unless the applicable prospectus supplement provides otherwise, certificated securities in definitive form and global securities will be issued in registered form. Definitive securities name you or your nominee as the owner of the security, and in order to transfer or exchange these securities or to receive payments other than interest or other interim payments, you or your nominee must physically deliver the securities to the trustee, registrar, paying agent or other agent, as applicable. Global securities name a depositary or its nominee as the owner of the debt securities, units or warrants represented by these global securities. The depositary maintains a computerized system that will reflect each purchaser's beneficial ownership of the securities through an account maintained by the purchaser with its broker/dealer, bank, trust company or other representative, as we explain more fully below.

Registered Global Securities

We may issue the registered debt securities, units and warrants in the form of one or more fully registered global securities that will be deposited with a depositary or its nominee identified in the applicable prospectus supplement and registered in the name of that depositary or nominee. In those cases, one or more registered global securities will be issued in a denomination or aggregate denominations equal to the portion of the aggregate principal or face amount of the securities to be represented by registered global securities. Unless and until it is exchanged in whole for securities in definitive registered form, a registered global security may not be transferred except as a whole by and among the depositary for the registered global security, the nominees of the depositary or any successors of the depositary or those nominees.

If not described below, any specific terms of the depositary arrangement with respect to any securities to be represented by a registered global security will be described in the prospectus supplement relating to those securities. We anticipate that the following provisions will apply to all depositary arrangements.

Ownership of beneficial interests in a registered global security will be limited to persons, called participants, that have accounts with the depositary or persons that may hold interests through participants. Upon the issuance of a registered global security, the depositary will credit, on its book-entry registration and transfer system, the participants accounts with the respective principal or face amounts of the securities beneficially owned by the participants. Any dealers, underwriters or agents participating in the distribution of the securities will designate the accounts to be credited. Ownership of beneficial interests in a registered global security will be shown on, and the transfer of ownership interests will be effected only through, records maintained by the depositary, with respect to interests of participants, and on the records of participants, with respect to interests of persons holding through participants. The laws of some states may require that some purchasers of securities take physical delivery of these securities in definitive form. These laws may impair such purchasers' abilities to own, transfer or pledge beneficial interests in registered global securities.

So long as the depositary, or its nominee, is the registered owner of a registered global security, that depositary or its nominee, as the case may be, will be considered the sole owner or holder of the securities represented by the registered global security for all purposes under the applicable indenture, unit agreement or warrant agreement. Except as described below, owners of beneficial interests in a registered global security will not be entitled to have the securities represented by the registered global security registered in their names, will not receive or be entitled to receive physical delivery of the securities in definitive form and will not be considered the owners or holders of the securities

under the applicable indenture, unit agreement or warrant agreement. Accordingly, each person owning a beneficial interest in a registered global security must rely on the procedures of the depository for that registered global security and, if that person is not a participant, on the procedures of the participant through which the person owns its interest, to exercise any rights of a holder under the applicable indenture, unit

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agreement or warrant agreement. We understand that under existing industry practices, if we request any action of holders or if an owner of a beneficial interest in a registered global security desires to give or take any action that a holder is entitled to give or take under the applicable indenture, unit agreement or warrant agreement, the depository for the registered global security would authorize the participants holding the relevant beneficial interests to give or take that action, and the participants would authorize beneficial owners owning through them to give or take that action or would otherwise act upon the instructions of beneficial owners holding through them.

Principal, premium, if any, on and interest payments on debt securities, and any payments to holders with respect to warrants, or units, represented by a registered global security registered in the name of a depository or its nominee will be made to the depository or its nominee, as the case may be, as the registered owner of the registered global security. None of us, the trustees, the warrant agents, the unit agents or any other agent of ours, agent of the trustees or agent of the warrant agents or unit agents will have any responsibility or liability for any aspect of the records relating to payments made on account of beneficial ownership interests in the registered global security or for maintaining, supervising or reviewing any records relating to those beneficial ownership interests.

We expect that the depository for any of the securities represented by a registered global security, upon receipt of any payment of principal, premium, interest or other distribution of underlying securities or other property to holders on that registered global security, will immediately credit participants' accounts in amounts proportionate to their respective beneficial interests in that registered global security as shown on the records of the depository. We also expect that payments by participants to owners of beneficial interests in a registered global security held through participants will be governed by standing customer instructions and customary practices, as is now the case with the securities held for the accounts of customers or registered in street name, and will be the responsibility of those participants.

If the depository for any of the securities represented by a registered global security is at any time unwilling or unable to continue as depository or ceases to be a clearing agency registered under the Securities Exchange Act of 1934, as amended, or Exchange Act, and a successor depository registered as a clearing agency under the Exchange Act is not appointed by us within 90 days, we will issue securities in definitive form in exchange for the registered global security that had been held by the depository. Any securities issued in definitive form in exchange for a registered global security will be registered in the name or names that the depository gives to the relevant trustee, warrant agent, unit agent or other relevant agent of ours or theirs. It is expected that the depository's instructions will be based upon directions received by the depository from participants with respect to ownership of beneficial interests in the registered global security that had been held by the depository.

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LEGAL MATTERS

The validity of the securities being offered by this prospectus will be passed upon by Goodwin Procter LLP, Boston, Massachusetts.

EXPERTS

The consolidated financial statements and the related financial statement schedule, incorporated in this prospectus by reference from BioAmber Inc.'s Annual Report on Form 10-K for the year ended December 31, 2015, have been audited by Deloitte LLP, an independent registered public accounting firm, as stated in their reports, which are incorporated herein by reference. Such financial statements and financial statement schedule have been so incorporated in reliance upon the reports of such firm given upon their authority as experts in accounting and auditing.