

BioAmber Inc.
Form 424B5
December 23, 2016
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**Filed pursuant to Rule 424(b)(5)
Registration No. 333-196470**

Prospectus Supplement to Prospectus, dated July 9, 2014

BioAmber Inc.

1,748,750 shares of common stock

We are offering 1,748,750 shares of our common stock in this offering.

Our common stock is traded on the New York Stock Exchange under the symbol BIOA. The last reported sale price of our common stock on the New York Stock Exchange on December 21, 2016 was \$4.15 per share.

Investing in our securities involves risks. See Risk Factors beginning on page S-15 of this prospectus supplement.

	Per Share	Total
Public offering price	\$ 4.00	\$ 6,995,000
Underwriting discounts and commissions(1)	\$ 0.20	\$ 349,750
Proceeds, before expenses, to us	\$ 3.80	\$ 6,645,250

(1) We have agreed to reimburse the representative of the underwriters (i) up to \$85,000 for its legal fees and expenses and (ii) up to \$10,000 for certain expenses for which we have agreed to reimburse the representative. See Underwriting.

The underwriters expect to deliver the shares on or about December 29, 2016.

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

Rodman & Renshaw

a unit of H.C. Wainwright & Co.

Prospectus Supplement dated December 22, 2016.

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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 and the accompanying prospectus 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 information 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 underwriters have 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 underwriters 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 or therein, 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 BioAmber, the Company, our company, we, us, or our mean BioAmber Inc. and our 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. 333-196470) under the Securities Act of 1933, as amended, or the Securities Act, with respect to the common stock 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. Our common stock is listed on The New York Stock Exchange, or NYSE, and 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, 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 Current Reports on Form 8-K filed on January 19, 2016, February 12, 2016, February 26, 2016, April 26, 2016 (as amended on August 9, 2016), May 23, 2016 and September 14, 2016; and

our Proxy Statement on Schedule 14A filed on April 6, 2016 (solely to the extent specifically incorporated by reference into our Annual Report on Form 10-K for the year ended December 31, 2015).

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 shares covered by this prospectus supplement and the accompanying prospectus or the sale of shares 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.

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:

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, including the timing of the financial close and commissioning and startup of our future facilities for the production of BDO and bio-succinic acid contemplated by such agreements, as amended to date;

our offtake agreement with PTTMCC Biochem Company Limited, or PTTMCC Biochem, for bio-succinic acid;

our ability to comply with the terms of our letter agreement with Bridging Finance Inc. in connection with our demand non-revolving credit facility, including the requirement to maintain a certain unrestricted cash balance;

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;

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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;

our ability to maintain and secure adequate funding for our current business activities; 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 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 multi-year agreements with PTTMCC Biochem for bio-succinic acid and Vinmar for bio-succinic acid, 1,4 BDO and THF. We have also entered into agreements with other companies for the supply of bio-succinic acid.

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

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

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

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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, 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.

Concurrent Offering of Warrants

Concurrently with this offering of common stock, we are offering warrants to purchase up to 2,224,199 shares of our common stock, which we refer to herein as the warrants offering. The warrants offering is being conducted as a separate registered direct offering by means of a separate prospectus supplement. The warrants are being purchased at the same price per share as the common stock offered hereby. The subscription proceeds paid in respect of the warrants will be placed in escrow and will be released in accordance with the terms of the warrants. We cannot assure you that the warrants offering will be completed.

Each warrant that we issue in the warrants offering entitles the holder thereof to receive the number of shares of common stock for which such holder subscribes, which we refer to as the Underlying Shares, on the exercise or deemed exercise of the warrant. The warrants are exercisable by the holders thereof at any time following their issuance in whole or in part for no additional consideration and all unexercised warrants shall be deemed to be exercised on the third business day after the date, which we refer to as the Qualification Date, on which (i) our common stock is accepted for listing on either the Toronto Stock Exchange or the TSX Venture Exchange and (ii) the Company shall have qualified a prospectus from at least the Canadian provincial securities regulator in that jurisdiction in which the initial holder of the warrant is resident. Immediately upon the exercise or deemed exercise of a warrant, the subscription proceeds paid in respect thereof will be released from escrow to the Company. If the Qualification Date does not occur on or before the 120th day following the date of issuance of the warrants, then the subscription amount in respect of each warrant that has not been exercised by such time shall be refunded to the purchasers thereof and the warrants shall become null and void and shall no longer entitle the holders thereof to acquire any shares of common stock.

This prospectus supplement and the accompanying prospectus relate only to this offering of common stock and not to our warrants offering.

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For the three months and year ended December 31, 2016, we expect total revenues to be between \$2.0 million and \$2.2 million, and \$9.6 million and \$9.8 million, respectively, as compared to total revenues of \$1.1 million and \$2.2 million for the three months and year ended December 31, 2015, and \$3.7 million for the three months ended September 30, 2016. These expected increases compared to 2015 are driven by the production ramp-up of our Sarnia facility, which started its commercial production in October 2015, while the expected decrease compared to the three months ended September 30, 2016 is driven by a large customer that was expected to purchase \$2.8 million of succinic acid in Q4 2016, but due to a technical problem in its manufacturing facility postponed the order to 2017. Our revenues are subject to variation quarter over quarter due to the timing of our sales to some of our key customers. As of December 1, 2016, we had cash and cash equivalents of \$11.2 million, compared to \$15.9 million as of September 30, 2016.

Our consolidated financial statements for the three months and year ended December 31, 2016 are not yet available. The foregoing information reflects our estimate with respect to total revenues based on currently available information, which is preliminary and unaudited, is not a comprehensive statement of our financial results and is subject to completion of our financial closing procedures. While we have not identified any unusual or unique events or trends that occurred during the period that might materially affect this preliminary estimate, our actual results for the three months and year ended December 31, 2016 will not be available until after this offering is completed, may differ materially from our preliminary estimate and are not indicative of the results to be expected for any future period. We have provided a preliminary range, rather than a specific amount, for total revenues primarily because our financial closing procedures for the three months and year ended December 31, 2016 are not yet complete and, as a result, our final results upon completion of our closing procedures may vary from the preliminary estimate.

This preliminary estimate has been prepared by and is the responsibility of management. Our independent registered public accounting firm has not conducted a review of and does not express an opinion or any other form of assurance with respect to this preliminary estimate. This information should be read in conjunction with our consolidated financial statements and the related notes and Management's Discussion and Analysis of Financial Condition and Results of Operations for prior periods incorporated by reference into this prospectus supplement.

Letter of Intent with CJ CheilJedang

On December 16, 2016, we entered into a non-binding letter of intent with CJ Cheiljedang Corporation (CJ CJ). Until December 31, 2017, we and CJ Cheiljedang Corporation have entered into an exclusivity period in which we may 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 may 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 CJ CJ plan 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 letter contemplates the retrofitting of an existing CJ CJ fermentation facility with our succinic acid technology. CJ CJ would incur all capital costs required to retrofit its fermentation facility, including the capital needed during plant commissioning and startup, and production is expected to begin in the first quarter of 2018. The joint venture could subsequently expand production capacity through debottlenecking and/or additional investment. CJ CJ is expected to own 65% of the JV and we are expected to own 35%. The JV would pay us a

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technology access fee for our bio-succinic acid technology, and pay CJCJ a tolling fee for producing bio-succinic acid on its behalf. The joint venture is subject to certain conditions, including technical and commercial due diligence, with the definitive agreements expected to be signed by July 2017. There is no guarantee that we are able to enter into definitive agreements for this collaboration on the terms contemplated in the letter of intent or at all.

Bridging Finance Waiver

On September 9, 2016, we entered into an agreement with Bridging Finance Inc. in connection with an on-demand, non-revolving credit facility. As part of this agreement, we were required to grant a general security interest in BioAmber Sarnia Inc., our joint venture with Mitsui & Co., Ltd. that owns our manufacturing facility in Sarnia. On December 21, 2016, we entered into a letter agreement with Bridging Finance to waive this general security requirement. In connection with this waiver, we are required to pay a fee of CAD\$375,000, in two equal installments: on December 15, 2016 and on January 15, 2017. The waiver also requires us to maintain a cash balance of the lesser of CAD\$15.0 million or the outstanding balance under the credit facility. We have until February 7, 2017 to put in place the restricted cash, and are required to pay a daily fee of CAD\$3,425, plus applicable taxes, commencing on December 7, 2016 until the cash balance obligation is met. Assuming that we receive \$14.4 million in net proceeds from this offering and the full amount of subscription proceeds from our concurrent warrants offering, after deducting underwriting discounts and commissions and estimated offering expenses payable by us for both offerings, we expect that our cash and cash equivalents will total \$24.7 million.

Non-Assertion Agreement with Mitsubishi Chemical

On December 21, 2016, we entered into a non-assertion agreement with Mitsubishi Chemical Corporation (MCC). MCC has agreed not to assert certain of its intellectual property rights in the fields of polyester polyol, polyurethane and bio-succinic acid and, to the extent that any third parties have any right to enforce such intellectual property rights, MCC has agreed to cause such third parties to not assert such rights. Pursuant to this Agreement, we can sell bio-based succinic acid to customers in the fields of polyester polyols and polyurethane without risk to us or our customers of litigation from MCC. The agreement has a geographic scope limited to Europe and North America in the case of polyester polyols and polyurethane, and is global in scope for bio-succinic acid. We have agreed to pay MCC an upfront fee of \$1.1 million, with \$600,000 payable on December 31, 2016 and \$500,000 payable on March 31, 2017. Additionally, we have agreed to pay MCC a royalty based on our bio-succinic acid sold within the scope of this agreement. If we oppose or take action against any of the MCC intellectual property rights, MCC may terminate the agreement. The royalty will have a minimum annual amount due, irrespective of the quantity sold, and will be considered fully paid up at the latest on the 10th anniversary of this agreement, or earlier if the annual royalty payments exceed the minimum annual royalty fee. This agreement, unless terminated earlier in accordance with its terms, will remain in force until the date on which the last of the patents expire, are abandoned or revoked.

Amendments to Vinmar Offtake Agreements

On December 22, 2016, we entered into an amendment to our Master Product Offtake Agreement for Bio-Butanediol with Vinmar International, Ltd., or Vinmar, in connection with our plans to construct a commercial-scale manufacturing facility producing bio-based 1,4-butanediol, or BDO and tetrahydrofuran, or THF. In our original agreement the BDO/THF plant had a December 31, 2016 deadline for achieving a financial close. The amendment extended the deadline for achieving the financial close to December 31, 2018.

On December 22, 2016, we also entered into an amendment to our Master Product Offtake Agreement for Bio-Succinic Acid with Vinmar, in connection with our Sarnia facility and two future bio-succinic acid facilities. The amendment 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, our joint venture partner

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Mitsui & Co. has taken a more active role in the commercialization of bio-succinic acid in Asia following the amendment of our joint venture agreement with Mitsui 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.

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THE OFFERING

Common stock offered by us 1,748,750 shares.

Common stock outstanding following the offering 30,585,733 shares.

Use of proceeds We estimate that the net proceeds from this offering will be approximately \$6.4 million after deducting underwriting discounts and commissions and estimated offering expenses. We intend to use the proceeds from this offering for working capital and other general corporate purposes. See Use of Proceeds .

New York Stock Exchange symbol BIOA

Risk factors Investing in our securities involves risks. See Risk Factors beginning on page S-15 of this prospectus supplement and other information included or incorporated into this prospectus supplement and the accompanying prospectus for a discussion of the factors you should carefully consider before deciding to invest in our securities.

The number of shares of common stock shown above to be outstanding after this offering is based on 28,836,983 shares outstanding as of September 30, 2016 and excludes:

5,804,508 shares of our common stock issuable upon the exercise of stock options outstanding as of September 30, 2016, at a weighted average exercise price of \$6.76 per share;

6,809,168 shares of our common stock reserved for future issuance under our equity incentive plans as of September 30, 2016;

4,746,463 shares of our common stock issuable upon the exercise of warrants outstanding as of September 30, 2016, at a weighted average exercise price of \$4.79 per share, in the case of both the number of shares and the weighted average exercise price per share, after giving effect to this offering, which is expected to result in adjustments to the exercise price and the number of shares exercisable pursuant to the warrants that we issued in June 2009 and April 2011 in connection with financing transactions, which we refer to collectively as the legacy warrants, and in May 2013 in our initial public offering, which we refer to collectively as the IPO warrants;

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27,000 shares of common stock issued since September 30, 2016, from the exercise of options to purchase 20,000 shares of common stock and from the exercise of warrants to purchase 7,000 shares of common stock; and

2,224,199 shares of common stock issuable upon exercise of the warrants issued in the warrants offering. Except as expressly indicated otherwise, the information in this prospectus supplement and the accompanying prospectus gives no effect to the warrants offering.

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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, 2013, 2014 and 2015 and the consolidated balance sheet data as of December 31, 2015 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, 2015 and incorporated by reference herein. The summary consolidated statements of operations data for the nine months ended September 30, 2015 and 2016 and the consolidated balance sheet data as of September 30, 2016 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, 2016 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, 2015 and incorporated by reference herein and the Quarterly Report on Form 10-Q for the fiscal quarter ended September 30, 2016 and incorporated by reference herein. Historical results are not necessarily indicative of the results for future periods.

Table of Contents**Consolidated Statements of Operations Data*:**

	Nine Months Ended September 30, 2016 (unaudited)	Nine Months Ended September 30, 2015 (unaudited)	Year Ended December 31, 2015	Year Ended December 31, 2014	Year Ended December 31, 2013
(in thousands, except share and per share data)					
Revenues					
Product sales	\$ 7,641	\$ 1,061	\$ 2,172	\$ 1,543	\$ 2,665
Total revenues	7,641	1,061	2,172	1,543	2,665
Cost of goods sold	11,578	1,429	2,613	6,044	2,689
Operating expenses					
General and administrative	7,376	7,812	10,594	10,655	9,757
Research and development, net ⁽¹⁾	5,145	15,568	20,286	15,156	16,579
Sales and marketing	2,219	3,198	4,002	4,482	4,730
Depreciation of property and equipment and amortization of intangible assets	3,600	288	1,080	260	1,165
Impairment loss and write-off of intangible assets		1,141	1,141		8,619
Foreign exchange loss	117	868	984	151	306
Operating expenses	18,457	28,875	38,087	30,704	41,156
Operating loss	22,394	29,243	38,528	35,205	41,180
Amortization of deferred financing costs and debt discounts	2,478	281	1,079	292	240
Financial charges (income), net	(4,660)	2,801	1,589	11,789	(13,298)
Grant income	(4,047)				
Loss (gain) on debt extinguishment				171	(314)
Equity participation in losses of equity method Investments	\$	\$	\$ 1	\$	\$ 15
Other expense (income), net	138	(21)	(22)	(183)	
Loss before income taxes	16,303	32,304	41,175	47,274	27,823
Income taxes	19	15	(4)	75	103
Net loss	\$ 16,322	\$ 32,319	\$ 41,171	\$ 47,349	\$ 27,926
Net loss attributable to:					

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BioAmber Inc. stockholders	\$	12,293	\$	29,428	\$	37,226	\$	46,474	\$	27,353
Non-controlling interest		4,029		2,891		3,945		875		573
	\$	16,322	\$	32,319	\$	41,171	\$	47,349	\$	27,926
Net loss per share attributable to BioAmber Inc. stockholders basic ⁽²⁾	\$	0.43	\$	1.23	\$	1.52	\$	2.32	\$	1.75
Weighted-average of common stock outstanding basic		28,592,360		24,007,572		24,499,970		20,016,180		15,590,814

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	As of September 30, 2016 (unaudited)	As of December 31, 2015
Cash	\$ 15,940	\$ 6,974
Working capital	(5,933)	(18,838)
Total assets ⁽³⁾	157,610	141,787
Long-term debt, including current portion ⁽³⁾	54,465	38,789
Total liabilities ⁽³⁾	64,555	70,848
Accumulated deficit	(210,583)	(198,290)
Stockholders equity	52,689	\$ 46,355

* 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.
- (3) We adopted Accounting Standards Update (ASU) 2015-03 Simplifying the Presentation of Debt Issuance Costs, on a retrospective basis in the three months ended March 31, 2016. In accordance with the adoption of this guidance, prior year amounts related to deferred debt issuance costs associated with long-term debt have been adjusted for the retrospective change in accounting principle. As of December 31, 2015, the Company has reclassified \$1.3 million of deferred financing costs associated with long-term debt in the consolidated balance sheet, against the long-term debt.

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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 **Risk Factors** in our Annual Report on Form 10-K for the fiscal year ended December 31, 2015 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, 2015 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

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 December 21, 2016, the sales price of our common stock fluctuated from a high of \$15.29 per share to a low of \$2.86, and on December 21, 2016, the closing sale price of our common stock was \$4.15 per share. 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, which 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.

The market price of our common stock may be adversely affected by market conditions affecting the stock markets in general, including price and trading fluctuations on the NYSE.

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 8,488,213 shares of our common stock, including the shares of common stock issuable upon exercise of our stock

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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.

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 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, including our transition from our *E. coli* bacterium to our yeast;

departures of executives or other key management employees;

foreign exchange fluctuations;

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.

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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 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. For example, we are required to establish and maintain a cash balance of the lesser of CAD\$15.0 million and an amount equal to the outstanding balance of our Bridging Finance Inc. credit facility (which as of the date of this prospectus supplement, is CAD\$25.0 million). 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.

Based on our current operating plan, we anticipate that the net proceeds from our public offerings, equity contributions from Mitsui, our on-demand non-revolving credit facility with Bridging Finance Inc., 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 beyond the next 12 months. 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 and our operations as deemed appropriate in order to conserve cash.

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

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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, and rules promulgated by the New York Stock Exchange, or NYSE. 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), 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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There can be no assurance that we will be able to receive the proceeds from the warrants offering as of any date or at all.

Concurrently with this offering of common stock, we are offering warrants to purchase up to 2,224,199 shares of our common stock, which we refer to herein as the warrants offering. The warrants offering is being conducted as a separate registered direct offering by means of a separate prospectus supplement. The warrants are being purchased at the same price per share as the common stock offered hereby. The subscription proceeds paid in respect of the warrants will be placed in escrow and will be released in accordance with the terms of the warrants.

Each warrant that we issue in the warrants offering entitles the holder thereof to receive the number of shares of common stock for which such holder subscribes, which we refer to as the Underlying Shares, on the exercise or deemed exercise of the warrant. The warrants are exercisable by the holders thereof at any time following their issuance in whole or in part for no additional consideration and all unexercised warrants shall be deemed to be exercised on the third business day after the date, which we refer to as the Qualification Date, on which (i) our common stock is accepted for listing on either the Toronto Stock Exchange or the TSX Venture Exchange and (ii) the Company shall have qualified a prospectus from at least the Canadian provincial securities regulator in that jurisdiction in which the initial holder of the warrant is resident. Immediately upon the exercise or deemed exercise of a warrant, the subscription proceeds paid in respect thereof will be released from escrow to us. If the Qualification Date does not occur on or before the 120th day following the date of issuance of the warrants, then the subscription amount in respect of each warrant that has not been exercised by such time shall be refunded to the purchasers thereof and the warrants shall become null and void and shall no longer entitle the holders thereof to acquire any shares of common stock.

We cannot assure you that the warrants offering will be completed, and even if we do complete it, there can be no assurance that either (i) our common stock will be accepted for listing on either the Toronto Stock Exchange or the TSX Venture Exchange or (ii) the Company shall have qualified a prospectus from at least the Canadian provincial securities regulator in that jurisdiction in which the initial holder of the warrant is resident, by the 120th day following the issuance date of the warrants. The satisfaction and timing of these conditions are determined by third parties, including the Toronto Stock Exchange or TSX Venture Exchange and Canadian provincial securities regulators, and are beyond our control. If we do not receive the proceeds from the warrants offering in a timely manner or at all, our cash position and financial condition will be materially and adversely affected.

We expect to enter into collective bargaining with the employees of our BioAmber Sarnia joint venture, 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., our joint venture with Mitsui and 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

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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 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, 2015 entitled "We identified a material weakness in our internal control over financial reporting 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."

Investors in this offering will experience immediate and substantial dilution.

Based on our net tangible book value of \$2.97 as of September 30, 2016, if you purchase shares in this offering, you will incur immediate and substantial dilution of \$0.99 per share, representing the difference between the price per share you pay and the net tangible book value per share of our common stock immediately after this offering. Any exercise of outstanding stock options, warrants or other equity awards will result in further dilution. For a further description of the dilution that you will experience immediately after this offering, see "Dilution."

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.

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USE OF PROCEEDS

We expect to receive approximately \$6.4 million in net proceeds from this offering. Net proceeds is what we expect to receive after deducting the underwriting discounts and commissions, as described in Underwriting below, and other estimated offering expenses payable by us, which include legal, accounting and printing fees.

We intend to use the net proceeds from this offering for working capital and other general corporate purposes. Until we use the net proceeds of this offering, we intend to invest the funds in short-term, investment grade, interest-bearing securities.

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If you invest in our common stock, your ownership interest will be diluted by the difference between the price per share you pay 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, 2016, was approximately \$85,699,784, or \$2.97 per share of our common stock, based upon 28,836,983 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, 2016. 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 1,748,750 shares of our common stock in this offering at the public offering price of \$4.00 per share and after deducting the underwriting discounts and commissions and estimated offering expenses payable by us, our as adjusted net tangible book value as of September 30, 2016, would have been approximately \$92.1 million, or \$3.01 per share. This represents an immediate increase in net tangible book value of \$0.04 per share to existing stockholders and immediate dilution in net tangible book value of \$0.99 per share to new investors purchasing our common stock in this offering at the public offering price. The following table illustrates this dilution on a per share basis:

Public offering price per share	\$ 4.00
Net tangible book value per share as of September 30, 2016	\$ 2.97
Increase in net tangible book value per share attributable to this offering	\$ 0.04
Adjusted net tangible book value per share as of September 30, 2016, after giving effect to this offering	\$ 3.01
Dilution in net tangible book value per share to new investors	\$ 0.99

The foregoing table and discussion is based on 28,836,983 shares outstanding as of September 30, 2016 and excludes:

5,804,508 shares of our common stock issuable upon the exercise of stock options outstanding as of September 30, 2016, at a weighted average exercise price of \$6.76 per share;

6,809,168 shares of our common stock reserved for future issuance under our equity incentive plans as of September 30, 2016;

4,746,463 shares of our common stock issuable upon the exercise of warrants outstanding as of September 30, 2016, at a weighted average exercise price of \$4.79 per share, in the case of both the number of shares and the weighted average exercise price per share, after giving effect to this offering, which is expected to result in adjustments to the exercise price and the number of shares exercisable pursuant to the legacy warrants and the IPO warrants;

27,000 shares of common stock issued since September 30, 2016, from the exercise of options to purchase 20,000 shares of common stock and from the exercise of warrants to purchase 7,000 shares of common stock; and

2,224,199 shares of common stock issuable upon exercise of the warrants issued in the warrants offering. To the extent that outstanding stock options, warrants or other equity awards are exercised or become vested or any additional options, warrants or other equity awards are granted and exercised or become vested or other issuances of shares of our common stock are made, you will experience further dilution. In addition, we may choose to raise additional capital due to market conditions or 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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Our common stock and the IPO warrants have traded on the NYSE since June 10, 2013, when the units issued in our initial public offering on May 9, 2013 were split into our common stock, trading under the symbol BIOA, and our warrants, trading under the symbol BIOA.WS. In connection with the initiation of the separate trading of our common stock and warrants, the trading of the units was suspended and the units were delisted from the NYSE. 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, 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 (until December 21, 2016)	\$ 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.

On December 21, 2016, the last reported sale price for our common stock on the NYSE was \$4.15 per share, and the last reported sale price for our warrants was \$0.49 per warrant. As of December 21, 2016, there were approximately 100 record holders of our common stock and one record holder of our warrants.

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DIVIDEND POLICY

We have never declared or paid dividends on our common stock and we do not anticipate paying any dividends in the foreseeable future. We currently intend to retain all available funds and any future earnings to fund the development and growth of our business. Any future determination to declare dividends will be subject to the discretion of our board of directors and will depend on various factors, including applicable laws, our result of operations, financial condition, future prospects and any other factors deemed relevant by our board of directors. In addition, pursuant to the terms of letter agreement that we entered into with Bridging Finance Inc. on September 9, 2016 in connection with a demand non-revolving credit facility, we are prohibited from, among other things, declaring or paying any dividends or making any distributions. The term of the credit facility lasts upon the earlier of demand and September 30, 2017. Investors should not purchase our common stock with the expectation of receiving dividends.

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Table of Contents**CAPITALIZATION**

The following table sets forth our cash and capitalization as of September 30, 2016:

on an actual basis; and

on an as adjusted basis to give effect to our sale in this offering of 1,748,750 shares of common stock at \$4.00 per share and after deducting underwriting discounts and commissions 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, 2016	
	Actual	As Adjusted
	(unaudited)	
	(in thousands, except share and per share data)	
Cash ⁽¹⁾	\$ 15,940	\$ 22,290
Debt:		
Long term debt, including current portion	54,465	54,465
Warrants financial liability	4,231	4,231
Redeemable non-controlling interest	40,366	40,366
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; 28,836,983 shares issued and outstanding, actual, and 30,585,733 shares issued and outstanding, as adjusted ⁽²⁾	288	305
Additional paid-in capital	273,399	279,732
Warrants	703	703
Accumulated deficit	(210,583)	(210,583)
Accumulated other comprehensive loss	(11,118)	(11,118)
Total stockholders' equity	52,689	59,039
Total capitalization	\$ 151,751	\$ 158,101

(1)

Does not include approximately \$573,000 of restricted cash classified separately on the balance sheet at September 30, 2016, which is held in an escrow account as a guarantee pursuant to a steam supply agreement with LANXESS Inc.

(2) The number of shares of our common stock in the table above excludes:

5,804,508 shares of our common stock issuable upon the exercise of stock options outstanding as of September 30, 2016, at a weighted average exercise price of \$6.76 per share;

6,809,168 shares of our common stock reserved for future issuance under our equity incentive plans as of September 30, 2016;

4,746,463 shares of our common stock issuable upon the exercise of warrants outstanding as of September 30, 2016, at a weighted average exercise price of \$4.79 per share, in the case of both the number of shares and the weighted average exercise price per share, after giving effect to this offering, which is expected to result in adjustments to the exercise price and the number of shares exercisable pursuant to the legacy warrants and the IPO warrants;

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27,000 shares of common stock issued since September 30, 2016, from the exercise of options to purchase 20,000 shares of common stock and from the exercise of warrants to purchase 7,000 shares of common stock; and

2,224,199 shares of common stock issuable upon exercise of the warrants issued in the warrants offering. All applicable share, per share and related information in this prospectus supplement speaks as of September 30, 2016, unless otherwise indicated, and gives no effect to the warrants offering.

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Table of Contents**UNDERWRITING**

Under the terms and subject to the conditions contained in an underwriting agreement dated December 22, 2016, we have agreed to sell to the underwriters named below, for whom H.C. Wainwright & Co., LLC, or Wainwright, is acting as representative, the following respective numbers of shares of common stock:

Underwriter	Number of Shares
H.C. Wainwright & Co., LLC	1,748,750

The underwriting agreement provides that the underwriters are obligated to purchase all the shares of common stock in the offering if any are purchased. The underwriters are offering the shares of common stock subject to receipt and acceptance of the shares from us and subject to the underwriters' right to reject any order in whole or in part. The underwriting agreement also provides that if an underwriter defaults, the purchase commitments of non-defaulting underwriters may be increased or the offering may be terminated.

The underwriters are offering the shares, subject to prior sale, when, as and if issued to and accepted by them, subject to approval of legal matters by their counsel, including the validity of the shares, and other conditions contained in the underwriting agreement, such as the receipt by the underwriters of officers' certificates and legal opinions. The underwriters reserve the right to withdraw, cancel or modify offers to the public and to reject orders in whole or in part.

Any shares sold by the underwriters to securities dealers will be sold at the applicable public offering price less a selling concession not in excess of \$0.07 per share. The underwriters propose to offer the shares of common stock to the public at the public offering price set forth on the cover of this prospectus supplement. If all of the shares are not sold at the public offering price, the underwriters may change the offering price and other selling terms, in which case we will file a further prospectus supplement describing such revised terms.

The following table shows the per share and total underwriting discounts and commissions to be paid to the underwriters by us.

	Per share	Total
Underwriting discounts and commissions paid by us	\$ 0.20	\$ 349,750

The underwriter will pay 40% of such discounts and commissions to AltaCorp Capital Inc. as financial advisor to the Company. We estimate that our out of pocket expenses for this offering and the concurrent warrants issuance will be approximately \$600,000 (excluding underwriting discounts and commissions and placement agent fees), including (i) up to \$85,000 for legal fees and expenses of the representative and (ii) up to \$10,000 for certain expenses for which we have agreed to reimburse the representative.

We and our officers and directors have agreed with the underwriters, subject to certain exceptions, not to offer, sell, contract to sell, announce the intention to sell, pledge, grant any option to purchase, make any short sale or otherwise dispose of any shares of our common stock, or any options or warrants to purchase any shares of our common stock, or any securities convertible into, exchangeable for or that represent the right to receive shares of our common stock during the period from the date of this prospectus continuing through the date 60 days, with respect to our officers and directors, and 30 days, with respect to us, after the date of this prospectus, except with the prior written consent of

Wainwright. This agreement does not apply to any existing employee benefit plans.

We have agreed to indemnify the underwriters against liabilities under the Securities Act, or contribute to payments that the underwriters may be required to make in that respect.

The shares of common stock are listed on the New York Stock Exchange under the symbol **BIOA** .

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The underwriters and their respective affiliates are full service financial institutions engaged in various activities, which may include securities trading, commercial and investment banking, financial advisory, investment management, investment research, principal investment, hedging, financing and brokerage activities. The underwriters and their respective affiliates have in the past performed commercial banking, investment banking (including serving as underwriters in our January 2016 follow-on public offering) and advisory services for us and our affiliates from time to time for which they have received customary fees and reimbursement of expenses and may, from time to time, engage in transactions with and perform services for us and our affiliates in the ordinary course of their business for which they may receive customary fees and reimbursement of expenses.

In addition, in the ordinary course of their various business activities, the underwriters and their respective affiliates may make or hold a broad array of investments and actively trade debt and equity securities (or related derivative securities) and financial instruments (including bank loans) for their own account and for the accounts of their customers, and such investment and securities activities may involve securities and/or instruments of ours. The underwriters and their respective affiliates may also make investment recommendations and/or publish or express independent research views in respect of such securities or instruments and may at any time hold, or recommend to clients that they acquire, long and/or short positions in such securities and instruments.

The representative has informed us that it will not engage in stabilizing transactions in connection with this offering.

A prospectus in electronic format may be made available on the websites maintained by one or more of the underwriters, or selling group members, if any, participating in this offering and one or more of the underwriters participating in this offering may distribute prospectuses electronically. Other than the prospectus in electronic format, the information on the websites of any such underwriter or selling group member is not part of this prospectus. The representative may agree to allocate a number of shares to underwriters and selling group members for sale to their online brokerage account holders. Internet distributions will be allocated by the underwriters and selling group members that will make internet distributions on the same basis as other allocations.

European Economic Area. In relation to each Member State of the European Economic Area which has implemented the Prospectus Directive (each, a Relevant Member State), each underwriter has represented and agreed that with effect from and including the date on which the Prospectus Directive is implemented in that Relevant Member State (the Relevant Implementation Date) it has not made and will not make an offer of shares which are the subject of the offering contemplated by this prospectus to the public in that Relevant Member State other than:

- (a) to any legal entity which is a qualified investor as defined in the Prospectus Directive;
- (b) to fewer than 150 natural or legal persons (other than qualified investors as defined in the Prospectus Directive), subject to obtaining the prior consent of Wainwright for any such offer; or
- (c) in any other circumstances falling within Article 3(2) of the Prospectus Directive;
- (d) provided that no such offer of shares shall require us or any underwriter to publish a prospectus pursuant to Article 3 of the Prospectus Directive.

For the purposes of this provision, the expression an offer of shares to the public in relation to any shares of our common stock in any Relevant Member State means the communication in any form and by any means of sufficient information on the terms of the offer and the shares to be offered so as to enable an investor to decide to purchase or subscribe for any shares of our common stock, as the same may be varied in that Relevant Member State by any measure implementing the Prospectus Directive in that Member State, the expression Prospectus Directive means

Directive 2003/71/EC (as amended, including by Directive 2010/73/EU), and includes any relevant implementing measure in the Relevant Member State.

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Each person in a Relevant Member State who receives any communication in respect of, or who acquires any shares under, the offer of shares contemplated by this prospectus will be deemed to have represented, warranted and agreed to and with us and each underwriter that:

- (a) it is a qualified investor within the meaning of the law in that Relevant Member State implementing Article 2(1)(e) of the Prospectus Directive; and
- (b) in the case of any shares acquired by it as a financial intermediary, as that term is used in Article 3(2) of the Prospectus Directive, (i) the shares acquired by it in this offering have not been acquired on behalf of, nor have they been acquired with a view to their offer or resale to, persons in any Relevant Member State other than qualified investors (as defined in the Prospectus Directive), or in circumstances in which the prior consent of the representative has been given to the offer or resale; or (ii) where shares have been acquired by it on behalf of persons in any Relevant Member State other than qualified investors, the offer of those shares to it is not treated under the Prospectus Directive as having been made to such persons.

France. No prospectus (including any amendment, supplement or replacement thereto) nor any other marketing material has been prepared in connection with the offering of the shares, has been filed with or approved by the French *Autorité des marchés financiers*, or AMF, or by the competent authority of another state that is a contracting party to the Agreement on the European Economic Area and notified to the AMF. This prospectus is not published in connection with and does not constitute an offer of securities by or on behalf of us. Each of the underwriters and the Company represent, warrant and agree that it has not offered or sold and will not offer or sell, directly or indirectly, the shares to the public in France, and has not distributed or caused to be distributed and will not distribute or cause to be distributed to the public in France, this prospectus or any other offering material relating to our common stock, and that such offers, sales and distributions have been and will only be made in France to persons licensed to provide the investment service of portfolio management for the accounts of third parties (*personnes fournissant le service d'investissement de gestion de portefeuille pour compte de tiers*), qualified investors (*investisseurs qualifiés*) investing for their own account, all as defined in, and in accordance with, Articles L. 411-1, L. 411-2 and D. 411-1 of the French *Code monétaire et financier*, except that qualified investors shall not include individuals.

United Kingdom. Each underwriter has represented and agreed that:

- (a) it has only communicated or caused to be communicated and will only communicate or cause to be communicated an invitation or inducement to engage in investment activity (within the meaning of Section 21 of the Financial Services and Markets Act 2000, as amended, or the FSMA) received by it in connection with the issue or sale of the shares of our common stock in circumstances in which Section 21(1) of the FSMA does not apply to us; and
- (b) it has complied and will comply with all applicable provisions of the FSMA with respect to anything done by it in relation to the shares of our common stock in, from or otherwise involving the United Kingdom.

Switzerland. This document, as well as any other material relating to the shares which are the subject of this offering, do not constitute an issue prospectus pursuant to Article 652a and/or 1156 of the Swiss Code of Obligations. The shares will not be listed on the SIX Swiss Exchange and, therefore, the documents relating to the shares, including, but not limited to, this document, do not claim to comply with the disclosure standards of the listing rules of SIX Swiss

Exchange and corresponding prospectus schemes annexed to the listing rules of the SIX Swiss Exchange. The shares are being offered in Switzerland by way of a private placement, i.e., to a small number of selected investors only, without any public offer and only to investors who do not purchase the shares with the intention to distribute them to the public. The investors will be individually approached by us from time to time. This document, as well as any other material relating to the shares, is personal and confidential and do not constitute an offer to any other person. This document may only be used by those investors to whom it has been handed out in connection with this offering and may neither directly nor indirectly be distributed or made

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available to other persons without our express consent. It may not be used in connection with any other offer and shall in particular not be copied and/or distributed to the public in (or from) Switzerland.

Dubai International Financial Centre. This document relates to an exempt offer in accordance with the Offered Securities Rules of the Dubai Financial Services Authority. This document is intended for distribution only to persons of a type specified in those rules. It must not be delivered to, or relied on by, any other person. The Dubai Financial Services Authority has no responsibility for reviewing or verifying any documents in connection with exempt offers. The Dubai Financial Services Authority has not approved this document nor taken steps to verify the information set out in it, and has no responsibility for it. The shares which are the subject of this offering may be illiquid and/or subject to restrictions on their resale. Prospective purchasers of the shares offered should conduct their own due diligence on the shares. If you do not understand the contents of this document you should consult an authorized financial adviser.

Hong Kong. The shares may not be offered or sold by means of any document other than (1) in circumstances which do not constitute an offer to the public within the meaning of the Companies Ordinance (Cap. 32, Laws of Hong Kong), or (2) to professional investors within the meaning of the Securities and Futures Ordinance (Cap. 571, Laws of Hong Kong) and any rules made thereunder, or (3) in other circumstances which do not result in the document being a prospectus within the meaning of the Companies Ordinance (Cap. 32, Laws of Hong Kong), and no advertisement, invitation or document relating to the shares may be issued or may be in the possession of any person for the purpose of issue (in each case whether in Hong Kong or elsewhere), which is directed at, or the contents of which are likely to be accessed or read by, the public in Hong Kong (except if permitted to do so under the laws of Hong Kong) other than with respect to shares which are or are intended to be disposed of only to persons outside Hong Kong or only to professional investors within the meaning of the Securities and Futures Ordinance (Cap. 571, Laws of Hong Kong) and any rules made thereunder.

Singapore. This prospectus has not been registered as a prospectus with the Monetary Authority of Singapore. Accordingly, this prospectus and any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of the shares may not be circulated or distributed, nor may the shares be offered or sold, or be made the subject of an invitation for subscription or purchase, whether directly or indirectly, to persons in Singapore other than (1) to an institutional investor under Section 274 of the Securities and Futures Act, Chapter 289 of Singapore (the SFA), (2) to a relevant person, or any person pursuant to Section 275(1A), and in accordance with the conditions, specified in Section 275 of the SFA or (3) otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA.

Where the shares are subscribed or purchased under Section 275 by a relevant person which is: (a) a corporation (which is not an accredited investor) the sole business of which is to hold investments and the entire share capital of which is owned by one or more individuals, each of whom is an accredited investor; or (b) a trust (where the trustee is not an accredited investor) whose sole purpose is to hold investments and each beneficiary is an accredited investor, shares, debentures and units of shares and debentures of that corporation or the beneficiaries' rights and interest in that trust shall not be transferable for six months after that corporation or that trust has acquired the shares under Section 275 except: (1) to an institutional investor under Section 274 of the SFA or to a relevant person, or any person pursuant to Section 275(1A), and in accordance with the conditions, specified in Section 275 of the SFA; (2) where no consideration is given for the transfer; or (3) by operation of law.

Japan. The shares have not been and will not be registered under the Financial Instruments and Exchange Law of Japan (the Financial Instruments and Exchange Law) and each underwriter has agreed that it will not offer or sell any shares, directly or indirectly, in Japan or to, or for the benefit of, any resident of Japan (which term as used herein means any person resident in Japan, including any corporation or other entity organized under the laws of Japan), or to

others for re-offering or resale, directly or indirectly, in Japan or to a resident of Japan, except pursuant to an exemption from the registration requirements of, and otherwise in compliance with,

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the Financial Instruments and Exchange Law and any other applicable laws, regulations and ministerial guidelines of Japan.

Australia. No prospectus, disclosure document, offering material or advertisement in relation to our common stock has been lodged with the Australian Securities and Investments Commission or the Australian Stock Exchange Limited. Accordingly, a person may not (a) make, offer or invite applications for the issue, sale or purchase of shares of our common stock within, to or from Australia (including an offer or invitation which is received by a person in Australia) or (b) distribute or publish this prospectus or any other prospectus, disclosure document, offering material or advertisement relating to our common stock in Australia, unless (i) the minimum aggregate consideration payable by each offeree is the U.S. dollar equivalent of at least A\$500,000 (disregarding monies lent by the offeror or its associates) or the offer otherwise does not require disclosure to investors in accordance with Part 6D.2 of the Corporations Act 2001 (CWLTH) of Australia; and (ii) such action complies with all applicable laws and regulations.

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CERTAIN MATERIAL U.S. FEDERAL INCOME TAX CONSIDERATIONS FOR NON-U.S. HOLDERS OF COMMON STOCK

The following is a general discussion of certain material U.S. federal income tax considerations applicable to non-U.S. holders (as defined below) with respect to their ownership and disposition of shares of our common stock issued pursuant to this offering. For purposes of this discussion, a non-U.S. holder means a beneficial owner of our common stock that is for U.S. federal income tax purposes:

a non-resident alien individual;

a foreign corporation or any other organization taxable as a corporation for U.S. federal income tax purposes or;

a foreign estate or trust, the income of which is not subject to U.S. federal income tax on a net-income basis. This discussion does not address the tax treatment of partnerships or other entities that are pass-through entities for U.S. federal income tax purposes or persons that hold their common stock through partnerships or other pass-through entities. A partner in a partnership or other pass-through entity that will hold our common stock should consult his, her or its own tax advisor regarding the tax consequences of acquiring, holding and disposing of our common stock through a partnership or other pass-through entity, as applicable.

This discussion is based on current provisions of the U.S. Internal Revenue Code of 1986, as amended, which we refer to as the Code, existing and proposed U.S. Treasury Regulations promulgated thereunder, current administrative rulings and judicial decisions, all as in effect as of the date of this prospectus, all of which are subject to change or to differing interpretation, possibly with retroactive effect. Any change could alter the tax consequences to non-U.S. holders described in this prospectus. There can be no assurance that the Internal Revenue Service, which we refer to as the IRS, will not challenge one or more of the tax consequences described herein. We assume in this discussion that a non-U.S. holder holds shares of our common stock as a capital asset, generally property held for investment.

This discussion does not address all aspects of U.S. federal income taxation that may be relevant to a particular non-U.S. holder in light of that non-U.S. holder's individual circumstances nor does it address any aspects of U.S. state, local or non-U.S. taxes, the alternative minimum tax, estate tax, or the Medicare tax on net investment income. This discussion also does not consider any specific facts or circumstances that may apply to a non-U.S. holder and does not address the special tax rules applicable to particular non-U.S. holders, such as:

banks, insurance companies, and other financial institutions;

tax-exempt organizations and governmental organizations;

tax-qualified retirement plans;

brokers, dealers or traders in securities;

regulated investment companies;

pension plans;

controlled foreign corporations, passive foreign investment companies, and corporations that accumulate earnings to avoid U.S. federal income tax;

partnerships or other entities or arrangements treated as partnerships for U.S. federal income tax purposes (and partners and investors therein);

persons that have a functional currency other than the U.S. dollar;

owners deemed to sell our common stock under the constructive sale provisions of the Code;

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owners that hold our common stock as part of a straddle, hedge, conversion transaction, synthetic security or other integrated investment; and

certain U.S. expatriates.

This discussion is for general information only and is not tax advice. Accordingly, all prospective non-U.S. holders of our common stock should consult their own tax advisors with respect to the U.S. federal, state, local and non-U.S. tax consequences of the purchase, ownership and disposition of our common stock.

Distributions on Our Common Stock

Distributions, if any, on our common stock generally will constitute dividends for U.S. federal income tax purposes to the extent paid from our current or accumulated earnings and profits, as determined under U.S. federal income tax principles. If a distribution exceeds our current and accumulated earnings and profits, the excess will be treated as a tax-free return of the non-U.S. holder's investment, up to such holder's tax basis in the common stock. Any remaining excess will be treated as capital gain, subject to the tax treatment described below in **Gain on sale, exchange or other disposition of our common stock**. Any such distributions will also be subject to the discussion below under the section titled **Withholding and Information Reporting Requirements - FATCA**.

Dividends paid to a non-U.S. holder generally will be subject to withholding of U.S. federal income tax at a 30% rate or such lower rate as may be specified by an applicable income tax treaty between the United States and such holder's country of residence.

Dividends that are treated as effectively connected with a trade or business conducted by a non-U.S. holder within the United States and, if an applicable income tax treaty so provides, that are attributable to a permanent establishment or a fixed base maintained by the non-U.S. holder within the United States, are generally exempt from the 30% withholding tax if the non-U.S. holder satisfies applicable certification and disclosure requirements. However, such U.S. effectively connected income, net of specified deductions and credits, is taxed at the same graduated U.S. federal income tax rates applicable to United States persons (as defined in the Code). Any U.S. effectively connected income received by a non-U.S. holder that is a corporation may also, under certain circumstances, be subject to an additional **branch profits tax** at a 30% rate or such lower rate as may be specified by an applicable income tax treaty between the United States and such holder's country of residence.

A non-U.S. holder of our common stock who claims the benefit of an applicable income tax treaty between the United States and such holder's country of residence generally will be required to provide a properly executed IRS Form W-8BEN or W-8BEN-E (or successor form) and satisfy applicable certification and other requirements. Non-U.S. holders are urged to consult their tax advisors regarding their entitlement to benefits under a relevant income tax treaty.

A non-U.S. holder that is eligible for a reduced rate of U.S. withholding tax under an income tax treaty may obtain a refund or credit of any excess amounts withheld by timely filing a U.S. tax return with the IRS.

Gain on Sale, Exchange or Other Disposition of Our Common Stock

Subject to the discussion below under **Withholding and Information Reporting Requirements - FATCA**, a non-U.S. holder generally will not be subject to any U.S. federal income tax on any gain realized upon such holder's sale, exchange or other disposition of shares of our common stock unless:

the gain is effectively connected with the non-U.S. holder's conduct of a U.S. trade or business and, if an applicable income tax treaty so provides, is attributable to a permanent establishment or a fixed-base maintained by such non-U.S. holder in the United States, in which case the non-U.S. holder generally will be taxed on a net income basis at the graduated U.S. federal income tax rates applicable to United States persons (as defined in the Code) and, if the non-U.S. holder is a foreign corporation, the branch profits tax described above in "Distributions on Our Common Stock" also may apply;

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the non-U.S. holder is a nonresident alien individual who is present in the United States for 183 days or more in the taxable year of the disposition and certain other conditions are met, in which case the non-U.S. holder will be subject to a 30% tax (or such lower rate as may be specified by an applicable income tax treaty between the United States and such holder's country of residence) on the net gain derived from the disposition, which may be offset by certain U.S. source capital losses of the non-U.S. holder, if any (even though the individual is not considered a resident of the United States, provided that the non-U.S. holder has timely filed U.S. federal income tax returns with respect to such losses); or

we are, or have been, at any time during the five-year period preceding such disposition (or the non-U.S. holder's holding period, if shorter) a U.S. real property holding corporation, unless our common stock is regularly traded on an established securities market and the non-U.S. holder holds no more than 5% of our outstanding common stock, directly or indirectly, actually or constructively, during the shorter of the 5-year period ending on the date of the disposition or the period that the non-U.S. holder held our common stock.

If we are determined to be a U.S. real property holding corporation and the foregoing exception does not apply, then a purchaser may withhold 15% of the proceeds payable to a non-U.S. holder from a sale of our common stock and the non-U.S. holder generally will be taxed on its net gain derived from the disposition at the graduated U.S. federal income tax rates applicable to United States persons (as defined in the Code). Generally, a corporation is a U.S. real property holding corporation only if the fair market value of its U.S. real property interests equals or exceeds 50% of the sum of the fair market value of its worldwide real property interests plus its other assets used or held for use in a trade or business. Although there can be no assurance, we do not believe that we are, or have been, a U.S. real property holding corporation, or that we are likely to become one in the future. No assurance can be provided that our common stock will be regularly traded on an established securities market for purposes of the rules described above.

Backup Withholding and Information Reporting

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 United States 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 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.

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Withholding and Information Reporting Requirements FATCA

The Foreign Account Tax Compliance Act, or FATCA, generally imposes a U.S. federal withholding tax at a rate of 30% on payments of dividends on, or gross proceeds from the sale or other disposition of, our common stock paid to a foreign entity unless (i) if the foreign entity is a foreign financial institution, such foreign entity undertakes certain due diligence, reporting, withholding, and certification obligations, (ii) if the foreign entity is not a foreign financial institution, such foreign entity identifies certain of its U.S. investors, if any, or (iii) the foreign entity is otherwise exempt under FATCA. Under applicable U.S. Treasury regulations, withholding under FATCA currently applies to payments of dividends on our common stock, but will only apply to payments of gross proceeds from a sale or other disposition of our common stock made after December 31, 2018. Under certain circumstances, a non-U.S. holder may be eligible for refunds or credits of the tax. An intergovernmental agreement between the United States and an applicable foreign country may modify the requirements described in this paragraph. Non-U.S. holders should consult their own tax advisors regarding the possible implications of this legislation on their investment in our common stock and the entities through which they hold our common stock, including, without limitation, the process and deadlines for meeting the applicable requirements to prevent the imposition of the 30% withholding tax under FATCA.

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LEGAL MATTERS

Certain legal matters with respect to the common stock offered by this prospectus supplement and the accompanying prospectus will be passed upon for us by Goodwin Procter LLP, Boston, Massachusetts. Certain legal matters will be passed upon for the underwriters by Ellenoff Grossman & Schole LLP, New York, New York.

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, 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.

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PROSPECTUS

\$100,000,000

Common Stock

Preferred Stock

Debt Securities

Warrants

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 June 2, 2014, the last reported sale price of our common stock on the New York Stock Exchange was \$9.65 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 11 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 July 9, 2014.

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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, 2013, filed on March 28, 2014;

our Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2014, filed on May 13, 2014; and

our Proxy Statement on Schedule 14A filed with the SEC on April 30, 2014.

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 4110, 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 planned Sarnia, Ontario plant and our other 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 take-or-pay agreement with Vinmar International Ltd., or Vinmar, related to bio-based 1, 4 BDO;

our take-or-pay agreement with PTT MCC Biochem Company Limited, or PTTMCC, related to bio-succinic acid from our planned Sarnia, Ontario plant;

the expected applications of our products and the sizes of addressable markets;

our ability to gain market acceptance for bio-succinic acid, its derivatives and other building block chemicals;

the benefits of our transition from our *E. coli* bacteria to our yeast;

our ability to commence 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;

our ability to economically obtain feedstock and other inputs;

the achievement of advances in our technology platform;

our ability to obtain and maintain intellectual property protection for our products and processes and not infringe on others' rights;

government regulatory and industry certification approvals for our facilities and products;

government policymaking and incentives relating to bio-chemicals;
and 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

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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, food additives and personal care products. We currently sell our first product, bio-succinic acid, to customers in a variety of chemical markets. We intend to produce bio-succinic acid that is cost-competitive with succinic acid produced from petroleum at our planned facility in Sarnia, Ontario. We currently produce our bio-succinic acid in a large-scale demonstration facility using a 350,000 liter fermenter in Pomacle, France, which we believe to be among the largest bio-based chemical fermenters in the world. We have produced approximately 3.39 million pounds, or 1.539 metric tons, of bio-succinic acid at this facility as of May 31, 2014.

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. Combining these opportunities with other building block chemicals we are developing, such as adipic acid, which is used in the production of nylons, we believe that our total addressable market is in excess of \$30 billion.

We believe we can produce bio-succinic acid that is cost-competitive with succinic acid produced from oil priced as low as \$35 per barrel, based on management's estimates of production costs at our planned facility in Sarnia, Ontario and an assumed corn price of \$6.50 per bushel. While we can provide no assurance that we will be able to secure corn at \$6.50 per bushel given the fluctuations in corn prices, we believe this assumption is

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reasonable given the historic price of corn and management's expectations as to their ability to manage the cost of glucose from corn and other inputs for our planned facility in Sarnia, Ontario. Over the past five years, the price of corn ranged from a low of \$2.68 per bushel to a high of \$8.44 per bushel. As of May 31, 2014, the spot price was \$4.52 per bushel and the six-month forward price was \$4.58 per bushel. We estimate that a \$1.00 increase or decrease in the per bushel price of corn would result in just a \$0.025 per pound change in our variable cost of our bio-succinic acid. We expect the productivity of our yeast organism and on-going process improvements to further reduce our production costs. Our ability to compete on cost is not dependent on government subsidies or tariffs.

We have signed a take-or-pay supply agreement with PTT-MCC Biochem for the supply of bio-succinic acid for their subsequent production of bio-based polymers. We have entered into strategic relationships with several segment leaders, such as our partnership with LANXESS for phthalate-free plasticizers made with bio-succinic acid, our agreement with Inolex for the development and commercialization of succinic acid esters in personal care applications, and our collaboration with Stahl for the development of coatings made with our 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 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 DuPont, Evonik and Celexion.

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.

In order to support our growth, we plan to rapidly expand our manufacturing capacity beyond the current production at the large-scale demonstration facility we operate in Pomacle, France. We have entered into a joint venture with Mitsui to finance, build and operate a manufacturing facility in Sarnia, Ontario through our BioAmber Sarnia subsidiary in which we own a 70% equity interest and Mitsui owns the remaining 30%. The joint venture agreement, which was entered into on November 2, 2011 and amended on January 24, 2014, also establishes our non-binding intent to build and operate a BDO and/or succinic acid production facility with Mitsui, which we expect to occur by the end of 2017. As part of the amendment, Mitsui increased its maximum capital commitment to the project from \$23.7 million to \$45.6 million in order to maintain a 30% equity stake in the joint venture. In exchange, Mitsui obtained the right to sell us back its shares in the Sarnia joint venture under certain specific circumstances: (i) Mitsui has the right to sell its shares and we have the obligation to purchase those shares at 100% of the investment value if the cost of the Sarnia facility is greater than \$140 million and we do not provide the additional funds to complete the facility, with a corresponding increase in our prorata share of the joint venture; (ii) in the event of an occurrence of a dissolution event of the joint venture until December 31, 2020, Mitsui has the right to sell its shares and we have the obligation to purchase those shares at 100% of the investment value, with the dissolution event consisting of the Sarnia plant not being operational by January 31, 2016, cumulative losses accrued from 2016 through 2020 exceeding 75% of paid-in capital, no after-tax profit earned in any three consecutive years from 2016 onwards, and any act of insolvency, bankruptcy, or similar event, and (iii) until December 31, 2018, Mitsui in its sole discretion may sell its shares and we must purchase those shares at a 50% discount to their investment value.

To date, we have entered into several supply agreements and memoranda of understanding, or MOUs, that contemplate, but do not obligate, us to supply approximately 144,000 metric tons of bio-succinic acid, and, as we continue construction of our planned facility in Sarnia, Ontario, we are actively seeking to enter into definitive

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supply agreements and form new relationships with potential customers. For example, on April 18, 2014, we entered into a three year supply agreement with PTT MCC Biochem Company Limited, or PTTMCC, a joint venture between PTT Public Company Limited and Mitsubishi Chemical Corporation that was established to produce and sell polybutylene succinate, or PBS, a biodegradable plastic made from succinic acid and 1,4 BDO. PTTMCC is constructing a PBS plant in Thailand that is expected to be operational in the first half of 2015 and consume approximately 14,000 tons of succinic acid per year at full capacity. This supply agreement provides that we will exclusively supply a minimum of 80% of PTTMCC's total bio-succinic needs until the end of 2017, with approximately 50% of the total purchases under take-or-pay terms. This is one of many potential customers and applications that we are targeting for the bio-succinic acid that we plan to produce at our Sarnia facility, and we expect to enter into additional definitive supply agreements in advance of mechanical completion in late 2014 or early 2015. These supply agreements reflect our ongoing efforts to expand the succinic acid addressable market into new applications such as PBS.

We also expect to grow our revenue base by developing new value-added applications and derivative products. On January 22, 2014, we entered into a 15 year take-or-pay contract for bio-based 1,4-Butanediol (BDO) with Vinmar International Ltd., a privately held marketing, distribution, and project developed company headquartered in Houston, Texas. Under the terms of the master off-take agreement, Vinmar has committed to purchase 100% of the bio-based 1,4 BDO produced in a 100,000 metric ton per year capacity plant that we plan to build in North America and commission in 2017. Vinmar also plans to invest in the facility alongside us. While this agreement is binding, our inability to finance and construct the BDO plant would relieve Vinmar of its obligation to purchase BDO under the terms of the take-or-pay agreement.

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 planned facility in Sarnia that indicates that no carbon dioxide equivalent (or greenhouse gases) will be emitted per kilogram of our bio-succinic acid produced, making our process carbon neutral. This is significantly less carbon 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 planned facility in Sarnia will consume 60% 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 the 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, we changed our name from DNP Green Technology, Inc. to BioAmber Inc. and changed our fiscal year end from June 30 to December 31.

Our principal executive offices are located at 1250 Rene Levesque West, Suite 4110, Montreal, Quebec, Canada H3B 4W8, and our principal research and development facility is located at 3850 Annapolis Lane North, Suite 180, Plymouth, Minnesota, United States of America, 55447. Our telephone number in the United States is (763) 253-4480 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

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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.

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.

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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 will 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.

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, 2013, filed with the SEC on March 28, 2014, and our Quarterly Report on Form 10-Q for the fiscal quarter ended March 31, 2014, filed with SEC on May 13, 2014, 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. The risks and uncertainties we describe are not the only ones facing us. Additional risks not presently known to us or that we currently deem immaterial may also impair our business operations.

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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 reallocated 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 reallocated 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 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.

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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 May 31, 2014, there were 18,586,299 shares of our common stock outstanding, 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 1,305,371 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 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.

Exercise Price. The exercise price of the IPO warrants is \$11.00 per whole share of common stock. The exercise price is subject to appropriate adjustment in the event of certain stock dividends and distributions, stock

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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.

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 66²/₃% 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

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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 a 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 May 31, 2014, legacy warrants to purchase 334,541 shares of our common stock at an exercise price of \$1.07, legacy warrants to purchase 610,890 shares of our common stock at an exercise price of \$1.43 per share, legacy warrants to purchase 264,670 shares of our common stock at an exercise price of \$5.74 per share, and legacy warrants to purchase 96,576 shares of our common stock at an exercise price of \$10.55 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 a 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 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;

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;

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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 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

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(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

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	Total Purchase Price
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	Purchased	
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.

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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.

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

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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 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.

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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 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

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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.

French Law Takeover Regulations

Our shares of common stock are also listed on NYSE Euronext Paris, as a result we expect to be subject to certain takeover regulations of the *Autorité des marchés financiers*, or the AMF, which is the securities regulatory authority in France. Pursuant to Article 231-1 of the AMF General Regulation, the AMF may apply its takeover rules, except for those governing standing market offers, buyout offers with squeeze-outs, and squeeze-outs, to takeovers for securities issued by companies such as ours whose registered offices are not in the European Economic Area.

Transfer Agent and Registrar

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

Paying Agent

The paying agent, for purposes of any shares that trade on NYSE Euronext Paris, is BNP Paribas Securities Services.

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Listing

Our common stock is listed on the New York Stock Exchange, or NYSE, under the symbol BIOA. Our common stock is also listed on the Professional Segment of NYSE Euronext Paris, or NYSE Euronext Paris, under the symbol BIOA. Our common stock trades simultaneously in U.S. dollars on NYSE and in Euros on NYSE Euronext Paris. NYSE and NYSE Euronext Paris are part of the NYSE Euronext group. The dual listing of our common stock reflects our global focus and is intended to promote additional liquidity for our investors and provide greater access to our common stock among fund managers in Europe who may be required to invest in Euro-zone markets or currencies only.

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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:

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;

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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 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;

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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;

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.

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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 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;

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the currency for which the warrants may be purchased;

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 sha