PURE BIOSCIENCE, INC.
Form S-1
April 10, 2012

As filed with the Securities and Exchange Commission on April 10, 2012

No. 333-

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM S-1

REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

PURE BIOSCIENCE, INC.
(Exact name of registrant as specified in its charter)

Delaware	2890	33-0530289
(State or other jurisdiction of incorporation or organization)	(Primary Standard Industrial Classification Code Number)	(I.R.S. Employer Identification Number)

1725 Gillespie Way
San Diego, CA 92020
(619)596-8600
(Address, including zip code, and telephone number,
including area code, of registrant's principal executive offices)

Michael L. Krall
President and Chief Executive Officer
1725 Gillespie Way
San Diego, CA 92020
(619)596-8600
(Name, address, including zip code, and telephone number,
including area code, of agent for service)

With Copies to:

Scott M. Stanton
R. Matthew Steiner
Morrison & Foerster LLP
12531 High Bluff Drive, Suite 100
San Diego, California 92130
(858) 720-5100

Approximate date of commencement of proposed sale to the public: From time to time after the effective date of this registration statement, as determined by the selling stockholder.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933 check the following box. x

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If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. o

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. o

If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. o

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer o	Accelerated filer o
Non-accelerated filer o (Do not check if a smaller reporting company)	Smaller reporting company x

CALCULATION OF REGISTRATION FEE

Title of Each Class of Securities to be Registered	Amount to be Registered (1)	Proposed Maximum Offering Price Per Security (2)	Proposed Maximum Aggregate Offering Price (2)	Amount of Registration Fee
Shares of Common Stock, par value $0.01 per share	12,470,711 shares	$0.26	$3,242,384.86	$371.58
Total	12,470,711 shares	$0.26	$3,242,384.86	$371.58

(1) This registration statement covers 12,470,711 shares of our common stock. Pursuant to and in accordance with Rule 416 under the Securities Act, there are also registered hereunder such indeterminate number of securities as may be issued to prevent dilution resulting from stock splits, stock dividends, or similar transactions.

(2) Estimated solely for the purpose of calculating the amount of the registration fee pursuant to Rule 457(c) of the Securities Act. The proposed maximum offering price per share and proposed maximum aggregate offering price are based upon the average of the high, or $0.28, and low, or $0.24, sales prices of our common stock on April 4, 2012, as reported by the NASDAQ Capital Market. It is not known how many shares of our common stock will be sold under this registration statement or at what price or prices such shares will be sold.

The registrant hereby amends this registration statement on such date or dates as may be necessary to delay its effective date until the registrant shall file a further amendment which specifically states that this registration statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933, as amended, or until the registration statement shall become effective on such date as the Securities and Exchange Commission, acting pursuant to said Section 8(a), may determine.

The information in this prospectus is not complete and may be changed. We may not sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This prospectus is not an offer to sell these securities and it is not soliciting an offer to buy these securities in any state where the offer or sale is not permitted.

SUBJECT TO COMPLETION, DATED APRIL 10, 2012

PROSPECTUS

PURE BIOSCIENCE, INC.

Up to 12,470,711 Shares of Common Stock

This prospectus is registering an aggregate of 12,470,711 shares of common stock, par value $0.01, of Pure Bioscience, Inc., a Delaware corporation, and relates to the sale of such shares by Lincoln Park Capital Fund, LLC, or Lincoln Park or the selling stockholder.

The shares of common stock being offered by the selling stockholder are issuable pursuant to the purchase agreement dated December 14, 2011 and amended April 5, 2012 that we entered into with Lincoln Park. See “The Lincoln Park Transaction” for a description of that agreement and “Selling Stockholder” for additional information regarding Lincoln Park. The prices at which Lincoln Park may sell the shares will be determined by the prevailing market price for the shares or in negotiated transactions.

We are not selling any securities under this prospectus and will not receive any of the proceeds from the sale of shares by the selling stockholder.

The selling stockholder may sell the shares of common stock described in this prospectus in a number of different ways and at varying prices. See “Plan of Distribution” for more information about how the selling stockholder may sell the shares of common stock being registered pursuant to this prospectus. The selling stockholder is an “underwriter” within the meaning of Section 2(a)(11) of the Securities Act of 1933, as amended.

We will pay the expenses incurred in registering the shares, including legal and accounting fees. We will also pay certain fees to Wharton Capital Markets LLC for its assistance in arranging our agreements with Lincoln Park. See “Plan of Distribution”.

Our common stock is traded on the NASDAQ Capital Market under the symbol “PURE”. On April 9, 2012, the last reported sale price of our common stock on the NASDAQ Capital Market was $0.29.

Investing in our securities involves a high degree of risk. Before deciding whether to invest in our securities, you should review carefully the risks and uncertainties described under “Risk Factors” on page 9 of 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.

This prospectus is dated , 2012

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PROSPECTUS SUMMARY

This summary highlights information contained elsewhere or incorporated by reference in this prospectus. This summary does not contain all of the information that you should consider before making an investment decision with respect to our securities. You should read the entire prospectus carefully, including the "Risk Factors" section beginning on page 9 of this prospectus, our financial statements and related notes incorporated by reference in this prospectus, and other information contained in and incorporated by reference in this prospectus, before making an investment decision with respect to our securities. Unless the context indicates otherwise, all references to "we", "us", "our", "Pure", or the "Company" refer to Pure Bioscience, Inc. and our wholly owned subsidiary, ETIH2O Corporation, a Nevada corporation. ETIH2O Corporation currently has no business operations and no material assets or liabilities and there have been no significant transactions related to ETIH2O Corporation during the periods presented in the consolidated financial statements incorporated by reference in this prospectus.

You should rely only on the information contained or incorporated by reference in this prospectus or any related prospectus supplement. We have not authorized anyone to provide you with different information. If anyone provides you with different or inconsistent information, you should not rely on it. The information contained in and incorporated by reference in this prospectus is accurate only as of the date of this prospectus. Our business, financial condition, results of operations and prospects may have changed since such date. Other than as required under the federal securities laws, we undertake no obligation to publicly update or revise such information, whether as a result of new information, future events or any other reason.

Some of the industry and other data contained in or incorporated by reference in this prospectus may be derived from data from various third-party sources. We have not independently verified any of that information and it may not be accurate or complete and may be subject to change based on various factors, including those discussed under the heading "Risk Factors" elsewhere in this prospectus.

Company Overview

We are focused on the discovery, development and commercialization of bioscience products that provide solutions to global health challenges. Our technology platform is based on stabilized ionic silver, and our initial products contain silver dihydrogen citrate, or SDC. SDC is a broad-spectrum, non-toxic antimicrobial. We manufacture and sell SDC-based disinfecting and sanitizing products, which are registered by the Environmental Protection Agency, or EPA, to distributors and end users. We also manufacture and sell various SDC-based formulations to manufacturers for use as a raw material in the production of personal care and other products. We believe our technology platform has potential application in a number of industries, and we have ongoing research and development projects in food processing, agriculture, water treatment, pharmaceuticals, and oil and gas.

We are an early stage company and have encountered, and likely will continue to encounter, risks and difficulties in introducing or establishing our products in rapidly evolving and highly competitive and regulated markets. Our current SDC-based products, and, we believe, SDC-based products that may be developed in the future, require or will require approval by government agencies prior to marketing or sale in the U.S. or in foreign markets. Complying with applicable government regulations and obtaining necessary approvals has historically been, and we expect to continue to be, time consuming and expensive, due in part, we believe, to the novel nature of our technology. While our goal is to become a sustainable company by using our proprietary technology platform to deliver leading antimicrobial products to multiple industries, our history of losses and inability in past periods to generate sufficient cash from our operations leads us to we anticipate that market acceptance of our novel technology may be a long-term achievement and it is possible that we will never become profitable.

We own the registered trademarks or pending trademark applications for PURE Bioscience®, Powered by SDC Ag+®, Staph Attack®, Staphacide®, Axenohl™, Axen™, Silvérion®, Kinderguard®, Cruise Control®, Nutripure™, Elderguard®, Critterguard® and Innovex®. In addition, we have applications for other trademarks, tradenames and service marks pending in countries outside of the United States. All other trademarks, tradenames and service marks included in this prospectus, or any related prospectus supplement or free writing prospectus, are the property of their respective owners.

We were incorporated in the state of California on August 24, 1992 under the name “Innovative Medical Services”. We changed our name to Pure Bioscience on October 6, 2003. On March 24, 2011, we changed our state of incorporation from California to Delaware and changed our name from Pure Bioscience to Pure Bioscience, Inc. Our principal executive offices are located at 1725 Gillespie Way, El Cajon, California, 92020. Our telephone number is (619) 596-8600. Our website is located at www.purebio.com. The information found on, or accessible through, our website is not a part of this prospectus.

Recent Developments

NASDAQ Delisting Notification

On September 16, 2011 and March 15, 2012, we received deficiency letters from the NASDAQ Stock Market, or NASDAQ, notifying us that our common stock is at risk of delisting from the NASDAQ Capital Market due to noncompliance with NASDAQ Listing Rule 5550(a)(2), which requires that the minimum bid price of our common stock equal or exceed $1.00 during the periods required by applicable NASDAQ rules. On March 22, 2012, we appealed NASDAQ's delisting determination in accordance with NASDAQ's applicable procedures by submitting a request for an oral hearing by a NASDAQ Hearings Panel, or the Panel, which hearing has been scheduled to take place on April 26, 2012. On March 23, 2012, we received from NASDAQ an additional determination letter notifying us that, based on our stockholders' equity as reported in our Quarterly Report on Form 10-Q for the period ended January 31, 2012, we do not satisfy the minimum stockholders' equity for continued listing on the NASDAQ Capital Market under NASDAQ Listing Rule 5550(b)(1). As described in the additional determination letter, our failure to meet the minimum stockholders' equity serves as an additional basis for delisting our common stock from the NASDAQ Capital Market and the Panel will consider the matter in rendering its decision on our appeal and its determination regarding the continued listing of our common stock on the NASDAQ Capital Market.

Our common stock will remain listed on the NASDAQ Capital Market pending the Panel's decision on our appeal. We expect to continue to pursue our appeal to attempt to maintain our NASDAQ listing, but our efforts may not be successful and our common stock may be delisted from the NASDAQ Capital Market.

Richmont Corporation Proxy Fight

We have received a notice from Richmont Corporation, or Richmont, announcing its intended nomination of six individuals for election to our Board of Directors, or Board, at our 2012 annual meeting. In the notice, Richmont confirmed its ownership of shares of our common stock, which represents less than one half of one percent of our outstanding common stock. Since our receipt of such notice: on December 23, 2011, Richmont filed a preliminary proxy statement with the Securities and Exchange Commission, or the SEC, describing its intended nomination of such individuals and, among other things, confirming its intent to terminate our ongoing litigation with Richmont Sciences, LLC and enter into a new, unspecified relationship with such entity in the event Richmont's proxy contest is successful; on February 17, 2012, we announced the date of our 2012 annual meeting of stockholders as July 25, 2012; and on February 27, 2012, Richmont filed a revised preliminary proxy statement in response to such announcement. If a proxy contest results from these actions by Richmont, our business could be adversely affected. Responding to proxy contests and other actions by insurgent stockholders can be costly and time-consuming, disrupting operations and diverting the attention of management and employees. Perceived uncertainties as to our future direction may impact our existing and potential collaborations or strategic relationships and may make it more difficult to attract and retain qualified personnel. If individuals are elected to our Board of Directors with a specific agenda, it may adversely affect our ability to effectively and timely implement our strategic plan.

The Offering

On December 14, 2011, we entered into a purchase agreement with Lincoln Park, the terms of which were amended effective April 5, 2012 and which, as amended, we refer to in this prospectus as the $7.5M Purchase Agreement. Also on December 14, 2011, we entered into a Registration Rights Agreement, or the Registration Rights Agreement, with Lincoln Park. Pursuant to the terms of the $7.5M Purchase Agreement and the Registration Rights Agreement, Lincoln Park has agreed to purchase from us up to $7,500,000 of our common stock (subject to certain limitations) from time to time over a 36-month period. Pursuant to the terms of the Registration Rights Agreement, we have filed with the SEC the registration statement that includes this prospectus to register for resale under the Securities Act of 1933, as amended, or the Securities Act, the shares that have been issued or may be issued to Lincoln Park under the $7.5M Purchase Agreement. Other than 470,711 shares of our common stock that we have already issued to Lincoln Park pursuant to the terms of the $7.5M Purchase Agreement as consideration for its commitment to purchase

additional shares of our common stock under such agreement, we do not have the right to commence any sales to Lincoln Park under the $7.5M Purchase Agreement until the SEC has declared effective the registration statement of which this prospectus forms a part. Thereafter, we may, from time to time and at our sole discretion but no more frequently than every two business days, direct Lincoln Park to purchase up to 200,000 shares of our common stock on any such day, or an accelerated amount under certain circumstances. There are no trading volume requirements or restrictions under the $7.5M Purchase Agreement, and we will control the timing and amount of any sales of our common stock to LPC. The purchase price of the shares sold to Lincoln Park under the $7.5M Purchase Agreement will be based on the market price of our common stock immediately preceding the time of sale as computed under the $7.5M Purchase Agreement without any fixed discount; provided that, pursuant to the amended terms of such agreement, in no event will such shares be sold to Lincoln Park at a price of less than $0.20 per share. The purchase price per share will be equitably adjusted for any reorganization, recapitalization, non-cash dividend, stock split, or other similar transaction occurring during the business days used to compute such price. We may at any time in our sole discretion terminate the $7.5M Purchase Agreement without fee, penalty or cost upon one business day’s notice.

As of December 14, 2011, there were 41,521,750 shares of our common stock outstanding, of which 38,754,319 shares were held by non-affiliates, excluding the 470,711 shares that we have already issued to Lincoln Park, which are being offered pursuant to this prospectus. In the aggregate, 12,470,711 shares are being offered under this prospectus, which includes 470,711 shares that we issued as a commitment fee and an additional 12,000,000 shares which are yet to be issued. If all of the 12,470,711 shares offered by Lincoln Park under this prospectus were issued and outstanding as of the date hereof, such shares would represent 21% of the total common stock outstanding and 22% of the outstanding shares held by non-affiliates, as adjusted, as of the date hereof. If we elect to issue and sell more than the 12,470,711 shares offered under this prospectus to Lincoln Park, which we have the right, but not the obligation, to do, we must first register for resale under the Securities Act any such additional shares, which could cause additional substantial dilution to our stockholders. In addition, depending on the average price at which we sell shares to Lincoln Park, if we seek to issue and sell more than 8,300,198 shares, representing 19.99% of our outstanding common stock on December 14, 2011, to Lincoln Park, we may be required to seek shareholder approval in order to remain in compliance with applicable rules of The NASDAQ Stock Market, which require shareholder approval for the issuance of more than 19.99% of a company's outstanding shares in a private placement at a discount to the greater of market or book value of the shares. The number of shares ultimately offered for resale by Lincoln Park is dependent upon the number of shares we sell to Lincoln Park under the $7.5M Purchase Agreement.

Issuances of our common stock in this offering will not affect the rights or privileges of our existing stockholders, except that the economic and voting interests of each of our existing stockholders will be diluted as a result of any such issuance. Although the number of shares of common stock that our existing stockholders own will not decrease, the shares owned by our existing stockholders will represent a smaller percentage of our total outstanding shares after any such issuance to Lincoln Park.

Securities Offered

Common stock to be offered by Lincoln Park:	12,470,711 shares, consisting of: · 470,711 commitment shares issued to Lincoln Park; and · 12,000,000 shares we may sell to Lincoln Park under the $7.5M Purchase Agreement.
Common stock outstanding immediately prior to this offering:	47,697,074 shares
Common stock to be outstanding after giving effect to the issuance of 12,470,711 shares of common stock to Lincoln Park under the $7.5M Purchase Agreement:	60,167,785 shares
Use of Proceeds:	We will receive no proceeds from the sale of shares of common stock by Lincoln Park in this offering. However, we may receive gross proceeds of up to $7,500,000 under the $7.5M Purchase Agreement. We currently intend that any proceeds that we receive from sales to Lincoln Park under the $7.5M Purchase Agreement will be used for general corporate purposes, which may include sales and marketing efforts relating to our products and product candidates. See "Use of Proceeds" on page 22.

Risk Factors	See “Risk Factors” beginning on page 9 and other information included and incorporated by reference in this prospectus for a discussion of factors you should carefully consider before deciding to invest in our securities.
NASDAQ Ticker Symbol:	PURE

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The number of shares of our common stock outstanding immediately prior to this offering, which was 47,697,074, excludes:

- 1,709,100 shares of our common stock issuable upon exercise of outstanding warrants, all of which are exercisable at prices ranging from $0.45 to $8.60 per share;
- 2,912,750 shares of our common stock issuable upon exercise of outstanding options, of which approximately 1,842,650 shares are exercisable; and
- 1,708,550 shares of our common stock available for future grants under our stock option plan.

RISK FACTORS

Investing in our securities has a high degree of risk. You should carefully consider the following information about risks and uncertainties that may affect us or our business, together with the other information contained and incorporated by reference in this prospectus, including our consolidated financial statements and the related notes incorporated by reference herein. If any of the following events, described as risks, actually occur, either alone or taken together, our business, financial condition, results of operations and future growth prospects could be materially and adversely affected. In those circumstances, the market price of our common stock could decline, and you may lose all or part of your investment in our securities. An investment in our securities is speculative and involves a high degree of risk. You should not invest in our securities if you cannot bear the economic risk of your investment for an indefinite period of time and cannot afford to lose your entire investment.There may be additional risks that we do not presently know of or that we currently believe are immaterial which could also impair our business and financial position.

Risks Related to Our Business and Industry

We will need to raise additional capital in order to continue operating our business and continue to develop new products and technologies, and such additional funds may not be available on acceptable terms or at all

We have not generated, and may never generate, significant cash from operations and must raise additional funds in order to continue operating our business. Our cash outflows for operating activities and for investments in patents and fixed assets were $2.8 million in the six months ended January 31, 2012, and $6.4 million in the year ended July 31, 2011. Cash outflows may be greater in future periods.

Our capital requirements will depend on many factors, including, among other factors:

- the acceptance of, and demand for, our products;
- our success and that of our strategic partners in developing and selling products derived from our technology;
- the costs of further developing our existing, and developing new, products or technologies;
- the extent to which we invest in new technology, testing and product development;
- the timing of vendor payments and of the collection of receivables, among other factors affecting our working capital;
- the exercise of outstanding options or warrants to acquire our common stock;
- the number and timing of acquisitions and other strategic transactions, if any; and
- the costs associated with the continued operation, and any future growth, of our business.

We will need to increase our liquidity and capital resources. We have entered into two separate purchase agreements with Lincoln Park Capital Fund, LLC, or Lincoln Park, to raise capital through the issuance of our common stock, on which we have recently relied and expect to continue to utilize in the near term and in future periods. However, pursuant to the terms of such agreements, we would be unable to sell shares to Lincoln Park if and when the market price of our common stock is below $0.25 or $0.20 per share, depending on the purchase agreement under which any such sale is made. Additionally, we anticipate that we may require additional capital in future periods to continue our operations and further develop our products and technologies. Until we can generate a sufficient amount of revenue to finance our cash requirements, which we may never do, we expect to increase our liquidity and capital resources by one or more measures, which may include reducing operating expenses, raising additional financing through the issuance of debt, equity (whether through our agreements with Lincoln Park or otherwise), or convertible securities, entering into partnerships, licenses, or other arrangements with third parties, reducing the exercise price of outstanding warrants, or through other means, any one of which could reduce the value to us, perhaps substantially, of our technology and its commercial potential. There is no guarantee that we will be able to obtain capital on terms acceptable to us, or at all. Insufficient funds would result in a material adverse effect on our business and operations and could cause us to fail to execute our business plan, fail to take advantage of future opportunities, or fail to respond

to competitive pressures or customer requirements, and further may require us to delay, scale back or eliminate some or all of our research and product development programs, license to third parties the right to commercialize products or technologies that we would otherwise commercialize ourselves, to reduce or cease operations, or otherwise significantly modify our business model or cease operations altogether. Modification of our business model and operations could result in an impairment of assets, which cannot be determined at this time. Furthermore, if we issue equity or convertible debt securities to raise additional funds, our existing stockholders may experience dilution, and in addition the new equity or debt securities may have rights, preferences and privileges that are superior to those of our existing stockholders. If we incur debt, it may increase our leverage relative to our earnings or to our equity capitalization.

We have a history of losses, and we may not achieve or maintain profitability

We had a loss of $4.6 million for the six months ended January 31, 2012, and a loss of $8.3 million for the year ended July 31, 2011. As of January 31, 2012, we had an accumulated deficit of approximately $58.2 million. Although we expect to continue to have losses in future periods, we are unable to predict the extent of our future losses or when or if we will become profitable, and it is possible we will never become profitable. Even if we do achieve profitability, we may not be able to sustain or increase profitability on an ongoing basis.

None of our existing agreements contain provisions that guarantee us any minimum revenues. If the penetration into the marketplace of SDC and SDC-based products is unsuccessful, revenue growth is slower than anticipated or operating expenses exceed expectations, it may take an unforeseen period of time to achieve or maintain profitability and we may never achieve or maintain profitability. Slower than anticipated revenue growth could force us to reduce research, testing, development and marketing of our technologies, and/or force us to reduce the size and scope of our operations, to sell or license our technologies to third parties, or to cease operations altogether.

The risks associated with our business may be more acute during periods of economic slowdown or recession. In addition to other consequences, these periods may be accompanied by decreased consumer and institutional spending in general, as well as decreased demand for, or additional downward pricing pressure on, our products. Accordingly, any prolonged economic slowdown or a lengthy or severe recession with respect to either the U.S. or the global economy is likely to have a material adverse effect on our results of operations, financial condition and business prospects. As a result, given the current weakness and uncertainties in the U.S. and in certain overseas economies, we expect that our business will continue to be adversely affected for so long as, and to the extent that, such adverse economic conditions and uncertainty exist.

Raising additional funds by issuing securities or through collaboration and licensing arrangements, or other issuances of our securities, may cause dilution to existing stockholders, restrict our operations or require us to relinquish proprietary rights

We expect that we will need to increase our liquidity and capital resources in the year ending July 31, 2012 and in future periods. We have a history of raising funds through offerings of our common stock, and we may in the future raise additional funds through public or private equity offerings (including pursuant to our recent agreements with Lincoln Park or otherwise), debt financings or corporate collaborations and licensing arrangements. The extent to which we rely on Lincoln Park as a source of funding will depend on a number of factors including, without limitation, the prevailing market price of our common stock and the extent to which we are able to secure working capital from other sources. To the extent that we raise additional capital by issuing equity securities, our stockholders' ownership will be diluted. Any debt financing we obtain may involve covenants that restrict our operations. These restrictive covenants may include, among other things, limitations on borrowing, specific restrictions on the use of our assets, as well as prohibitions on our ability to create liens on our assets, pay dividends on or redeem our capital stock or make investments. In addition, if we raise additional funds through collaboration and licensing arrangements, it may be necessary to grant licenses on terms that are not favorable to us or relinquish potentially valuable rights to our products or proprietary technologies. We may be required in future collaborations to relinquish all or a portion of our sales and marketing rights with respect to our products or license intellectual property that enable licensees to develop competing products in order to complete any such transaction.

Our authorized common stock is 100,000,000 shares. In addition to capital raising activities, other possible business and financial uses for our authorized common stock include, without limitation, future stock splits, acquiring other companies, businesses or products in exchange for shares of common stock, issuing shares of our common stock to partners in connection with strategic alliances, attracting and retaining employees by the issuance of additional securities under our various equity compensation plans, or other transactions and corporate purposes that our Board of Directors deems are in the Company's best interest. Additionally, shares of common stock could be used for anti-takeover purposes or to delay or prevent changes in control or management of the Company. For example, without further stockholder approval, our Board could approve the sale of shares of common stock in a private transaction to purchasers who may oppose a takeover or favor our current Board. We cannot provide assurances that any issuances of common stock will be consummated on favorable terms or at all, that they will enhance stockholder value, or that they will not adversely affect our business or the trading price of our common stock.

Under our Certificate of Incorporation, our Board could also authorize the issuance of up to 5,000,000 shares of preferred stock on terms determined by the Board. If any common or preferred stock is issued, the interests of holders

of our common stock could be diluted, and shares of preferred stock could be issued in a financing in which investors purchase preferred stock with rights, preferences and privileges that may be superior to those of the common stock, and the market price of our common stock could decline.

If outstanding options and warrants to purchase shares of our common stock are exercised, the interests of our stockholders could be diluted

As of April 9, 2012, in addition to 47,697,074 shares of common stock issued and outstanding, we currently have 2,912,750 shares reserved for issuance under equity compensation plans for vested and unvested stock options. We also have 1,709,100 shares reserved for issuance on the exercise of outstanding warrants. We may elect to reduce the exercise price of outstanding warrants as a means of providing additional financing to us. The exercise of options and warrants, and the sale of shares underlying such options or warrants, could have an adverse effect on the market for our common stock, including the price that an investor could obtain for their shares. Investors may experience dilution in the net tangible book value of their investment upon the exercise of outstanding options and warrants granted under our stock option plans, and options and warrants that may be granted or issued in the future.

Because we are an early stage company, it is difficult to evaluate our prospects; our financial results may fluctuate and these fluctuations may cause our stock price to fall

Since acquiring the rights to our SDC technology, we have encountered and likely will continue to encounter risks and difficulties associated with introducing or establishing our products in rapidly evolving markets. These risks include the following, among others:

- we may not increase our sales to our existing customers and/or expand our customer base;
- we may not succeed in materially penetrating markets and applications for our SDC technology;
- we or our partners and/or distributors may not establish or maintain effective marketing programs and create product awareness or brand identity;
- our partners' and/or distributors' goals and objectives may not be consistent with our own;
- we may not attract and retain key business development, technical and management personnel;
- we may not maintain existing, or obtain new, regulatory approvals for our technology and products;
- we may not succeed in locating strategic partners and licensees of our technology;
- we may not effectively manage our anticipated growth, if any; and
- we may not be able to adequately protect our intellectual property.

Any failure to successfully address these risks and uncertainties could seriously harm our business and prospects. We may not succeed given the technological, marketing, strategic and competitive challenges we face. In addition, because of our limited operating history and the early stage of market development for our SDC technology, we have limited insight into trends that may emerge and affect our business. Forecasting future revenues is difficult, especially because our technology is novel, and market acceptance of our products could change rapidly. In addition, our customers and potential customers in the foreseeable future are highly concentrated. Fluctuations in the buying patterns of our current or potential customers could significantly affect the level of our sales on a period to period basis. As a result, our financial results could fluctuate to an extent that may adversely affect our stock price. There are a number of other factors that could cause our financial results to fluctuate unexpectedly, including product sales, the mix of product sales, the cost of product sales, our ability for any reason to be able to meet demand, the achievement and timing of research and development and regulatory milestones, changes in expenses, including non-cash expenses such as the fair value of stock options granted, and manufacturing or supply issues, among other issues.

We are dependent on our core SDC technology and if our efforts to achieve or maintain market acceptance of our core SDC technology are not successful, we are unlikely to attain profitability

We have and are currently focusing substantially all of our time and financial resources in the development and commercialization of our core SDC technology. Although we believe SDC has applications in multiple industries, we expect that sales of SDC will constitute a substantial portion, or all, of our revenues in future periods. Any material decrease in the overall level of sales or expected sales of, or the prices for, SDC, whether as a result of competition, change in customer demand, or any other factor, would have a materially adverse effect on our business, financial condition and results of operations. We are marketing our new antimicrobial silver ion technology to industrial and consumer markets. These products have not yet been accepted into the marketplace, and may never be accepted. In addition, even if our products achieve market acceptance, we may not be able to maintain product sales or other forms of revenue over time if new products or technologies are introduced that are more favorably received than our products, are more cost-effective or otherwise render our products less attractive or obsolete.

We are subject to intense competition

Our SDC-based products compete in highly competitive markets dominated by prominent chemical and pharmaceutical companies. Most of our competitors have been in business for a longer period of time than us, have a greater number of products on the market and have greater financial and other resources than we do. Many of our

competitors already have well established brands and distribution capabilities, and in some cases are able to leverage the sale of other products with more favorable terms for products competing with our own. We also have significantly fewer employees than virtually all of our competitors. Furthermore, recent trends in this industry are that large chemical and pharmaceutical companies are consolidating into a smaller number of very large entities, which further concentrates financial, technical and market strength and increases competitive pressure in the industry. If we directly compete with these very large entities for the same markets and/or products, their financial strength could prevent us from capturing a share of those markets. It is possible that developments by our competitors will make our technologies or products noncompetitive or obsolete. Our ability to compete will depend upon our ability, and the ability of our distributors and other partners, to develop brand recognition and novel distribution methods, and to displace existing, established and future products in our relevant target markets. We, or our distributors and partners, may not be successful in doing so, which would have a materially adverse effect on our business, financial condition and results of operations.

We have limited sales, marketing and product distribution experience

We have limited experience in the sales, marketing and distribution of our products and have previously relied primarily on product distribution arrangements and/or sales and marketing services provided by third parties.

We recently developed and obtained EPA registration of our proprietary new brand, PURE™ Hard Surface disinfectant and food contact surface sanitizer, to resume direct control of our sales of this product through a restructuring of our sales strategy and operations. We intend to market and sell our PURE Hard Surface product into consumer, commercial and institutional markets, including the food processing industry, though both alternative and traditional distribution channels. We have recently resumed direct control of our sales and marketing of this product, which requires that we enact various operational changes in our business, including making significant investments in our own sales and marketing organization, and we expect in some cases to pay sales commissions to sales representatives. We may not be able to establish such sales, marketing, and distribution capabilities. If we are not able to successfully sell, market and distribute this product directly, we may seek to establish product distribution arrangements with third parties, which may not be available on terms acceptable to us, if at all.

We expect to rely on third parties to develop SDC-based products, and they may not do so successfully or diligently

We rely in part, and expect to rely in the future, on third parties to whom we license rights to our technology to develop and commercialize products containing SDC for many of the applications for which we believe SDC-based products have, or may have, market opportunities.

Our reliance on these third parties for development activities reduces our control over these activities. In such arrangements, we have relied, and expect in the future to rely, on the third party to fund and direct product development activities and appropriate regulatory filings. Any of these third parties may not be able to successfully develop such SDC-based products due to, among other factors, a lack of capital, a lack of appropriate diligence, insufficient devotion to sales efforts, a change in the evaluation by the third party of the market potential for SDC-based products, technical failures, and poorer than expected results from testing or trial use of any products that may be developed.

If we are unable to successfully develop or commercialize new applications of our SDC technology, or if such efforts are delayed, our operating results will suffer

In addition to its use on inanimate surfaces, we are pursuing applications of our SDC technology as a broad-spectrum antimicrobial for use in human and veterinary healthcare products. Any product developed may be delayed or may never achieve regulatory approval or be commercialized. Delays in achieving regulatory approvals for particular applications of our products could significantly impact our product development costs. If indications are commercialized, we may not receive a share of future revenues that provides an adequate return on our historical or future investment.

If we are not able to manage any growth we achieve effectively, we may not become profitable

If our efforts to achieve and maintain market acceptance of our SDC technology are successful, we will need to expand our business operations. There can be no assurance that we will have sufficient resources to do. There also can be no assurance that if we continue to invest in additional infrastructure, we will be effective in expanding our operations or that our systems, procedures or controls will be adequate to support such expansion. In addition, we would need to provide additional sales and support services to our partners, potentially in multiple markets. Failure to properly manage increased customer demands, if any, could result in a material adverse effect on customer satisfaction, our ability to meet our contractual obligations, and on our operating results.

The industries in which we operate are heavily regulated and we may be unable to compete effectively

We are focused on the marketing and continued development of our SDC antimicrobial technology. We believe that all products derived from our SDC technology, or products that may be derived from our SDC technology in future periods, require or will require approval by government agencies prior to marketing or sale in the U.S. or in foreign markets. Complying with applicable government regulations and obtaining necessary approvals can be, and has historically been, time consuming and expensive, due in part, we believe, to the novel nature of our technology, and regulatory review may involve delays or other actions adversely affecting the development, manufacture, marketing and sale of our products. While we cannot accurately predict the outcome of any pending or future regulatory review processes or the extent or impact of any future changes to legislation or regulations affecting review processes, we expect such processes to remain time consuming and expensive as we, or our partners, apply for approval to make new or additional efficacy claims for current products or to market new product formulations. Obtaining approvals for new SDC-based products in the U.S., or in markets outside the U.S., could take several years, or may never be accomplished.

Our SDC is a platform technology rather than a single use applied technology. As such, products developed from the platform fall under the jurisdiction of multiple U.S. and international regulatory agencies. Our disinfectant and sanitizer products are regulated in the U.S. by the EPA. In addition to the EPA, each of the 50 United States has its own government agencies that regulate the sale or shipment of our products into their state. We have obtained registration for these products from the EPA and all states into which such products are currently marketed and sold. We are required to meet certain efficacy, toxicity and labeling requirements and pay ongoing fees in order to maintain such registrations. We may not be able to maintain these registrations in the future, which may eliminate our continued ability to market and sell our products in some or all parts of the U.S. We also may not be able to obtain necessary registrations with the EPA and applicable states for other SDC disinfectant and sanitizer products that we or our partners may develop, which would limit our ability to sell any such products in the future.

Some potential applications of SDC, such as those aimed at healthcare, veterinary and certain food preparation markets, may require approval by other government agencies prior to marketing or sale in the U.S. or in foreign markets, such as the FDA. Obtaining FDA approval is a complicated and expensive process and such approvals may never be obtained for any SDC products. If FDA approvals are obtained, the approvals may limit the uses for which SDC products may be marketed such that they may not be profitable to us, and the applicable products would be subject to pervasive and continuing regulation by the FDA that could lead to withdrawal of product approvals.

We intend to fund and manage certain of our EPA-regulated product development internally, in conjunction with our regulatory consultants and by partnering with other third parties. We have partnered, or intend to partner, with third parties who are seeking, or intend to seek, approvals to market SDC-based products in markets outside the U.S., and with other third parties who are developing FDA-regulated SDC-based products who, upon such development, would seek FDA approvals of such products. Our ability to market and sell our products is dependent on our and our partners' ability to obtain and maintain required registrations and approvals of applicable regulatory agencies. Failure by our partners or us to comply with applicable regulations could result in fines, or to the withdrawal of approval for us or our partners and distributors to market our products, in any or all jurisdictions, and/or our failure to successfully commercialize SDC or otherwise achieve revenues from sales of such products.

We are subject to substantial regulation related to quality standards applicable to our manufacturing and quality processes and our failure to comply with applicable quality standards could affect our ability to commercialize SDC products

The EPA and other applicable U.S. and foreign government agencies regulate our and our partners' systems and processes for manufacturing SDC-based products. These regulations require that we and our partners observe "good manufacturing practices" in order to ensure product quality, safety and effectiveness. Failure by us or our partners to comply with current or future governmental regulations and quality assurance guidelines could lead to temporary manufacturing shutdowns, product recalls or related field actions, product shortages, delays in product manufacturing, and significant cost to us. Efficacy or safety concerns and/or manufacturing quality issues with respect to our products or those of our partners could lead to product recalls, fines, withdrawal of approvals, declining sales, and/or our failure to successfully commercialize SDC or otherwise achieve revenue growth.

Pricing and supply issues may have a material impact on our margins and our ability to supply our customers

All of the supply ingredients used to manufacture our products are available from multiple suppliers. However, commodity prices for some ingredients can vary significantly and the margins that we are able to generate could decline if prices rise. For example, both silver and citric acid prices have been volatile in recent periods.

In addition to such commodities, for finished products we also rely on producers of specialized packaging inputs such as bottles and labels. Due to their specialized nature, the supply of such inputs can be periodically constrained, resulting in additional costs to obtain these items, which may in turn inhibit our ability to supply products to our

customers.

We are generally unable to raise our product prices to our customers, partners and distributors quickly to maintain our margins, and significant price increases for key inputs could therefore have an adverse effect on our results of operations. Price increases can also result in lost sales, and any inability to supply our customers' orders can lead to lost future sales to such customers.

While we expect to be the sole source supplier of SDC concentrate, in future periods we may use third parties to blend, package and provide fulfillment activities for our finished products. We expect that our margins would be reduced by using such third parties, and our ability to maintain product quality may not be as extensive or effective as when we produce these products in our own facility(ies). Any quality control issues could lead to product recalls and/or the loss of future sales, which would reduce our revenues and/or profits.

If we suffer negative publicity concerning the safety or efficacy of our products, our sales may be harmed

If concerns should arise about the safety or efficacy of any of our products that are marketed, regardless of whether or not such concerns have a basis in generally accepted science or peer-reviewed scientific research, such concerns could adversely affect the market for these products. Similarly, negative publicity could result in an increased number of product liability claims, whether or not these claims are supported by applicable law.

If a natural or man-made disaster strikes our manufacturing facility, we may be unable to manufacture our products for a substantial amount of time and our sales and profitability may decline

Our sole manufacturing facility and the manufacturing equipment we use to produce our products would be costly to replace and could require substantial lead-time to repair or replace. The facility may be affected by natural or man-made disasters and in the event they were affected by a disaster, we would be forced to set up alternative production capacity, or rely on third party manufacturers to whom we would have to disclose our trade secrets. Although we possess insurance for damage to our property and the disruption of our business, such insurance may not be sufficient to cover all of our potential losses, may not continue to be available to us on acceptable terms, or at all, and may not address the marketing and goodwill consequences of our inability to provide products to meet customers' requirements.

If we are unable to obtain, maintain or defend patent and other intellectual property ownership rights relating to our technology, we or our collaborators and distributors may not be able to develop and market products based on our technology, which would have a material adverse impact on our results of operations

We rely and expect in the future to rely on a combination of patent, trademark, trade secret and copyright protections, and contractual restrictions, to protect the proprietary aspects of our technology and business.

Legal protections of our intellectual property and proprietary rights afford only limited protection. For instance, we currently own nine U.S. patents related to our SDC technology. The lives of these patents, and any patents that we may obtain in the future, are not indefinite, and the value to us of some or all of our patents may be limited by their term. Additionally, obtaining and maintaining patent protection depends on our compliance with various procedural, document submission, fee payment and other requirements imposed by government patent agencies, and our patent protection could be reduced or eliminated for non-compliance with these requirements. Furthermore, legal standards relating to the validity, enforceability and scope of patent protection and protections of other intellectual property and proprietary rights in the U.S. are uncertain. Additionally, to the extent that we operate internationally, the laws of foreign countries may not protect our proprietary rights to the same extent as the laws of the U.S. Many countries have a "first-to-file" trademark registration system, which may prevent us from registering or using our trademarks in certain countries if third parties have previously filed applications to register or have registered the same or similar trademarks. If certain of our proprietary rights cannot be, or are not sufficiently, protected by patents and trademark registrations, it could have a material adverse impact on our business and our ability to commercialize or license our technology and products.

Our own efforts to protect our intellectual property and other proprietary rights may also be insufficient. Despite efforts to protect our proprietary rights, our means of protecting such rights may not be adequate and unauthorized parties may attempt to copy aspects of our proprietary technology, obtain and use information that we regard as proprietary, or otherwise misappropriate our intellectual property. In addition, unpatented proprietary rights, including trade secrets and know-how, can be difficult to protect and may lose their value if they are independently developed by a third party or if their secrecy is lost. It is possible that, despite our efforts, competitors or others will create and use products, adopt service names similar to our service names or otherwise violate or misappropriate our proprietary rights. The infringement of such rights could have a material negative impact on our business and on our results of operations.

Litigation may be necessary to enforce our intellectual property and other proprietary rights, which would be expensive and could consume time and other resources. The result of any such litigation may be the court's ruling that that our patents or other intellectual property rights are invalid and/or should not be enforced. Additionally, even if the validity of such rights is upheld, the court could refuse to stop a third party's infringing activity on the ground that such activities do not infringe our rights. The U.S. Supreme Court has recently revised certain tests regarding granting patents and assessing the validity of patents to make it more difficult to obtain patents. As a consequence, issued patents may be found to contain invalid claims according to the newly revised standards. Some of our patents may be subject to challenge and subsequent invalidation or significant narrowing of claim scope in a reexamination proceeding, or during litigation, under the revised criteria.

Third parties may claim that we infringe their proprietary rights and may prevent us from manufacturing and selling some of our products

Our manufacture, use and sale of SDC-based products may subject us to lawsuits relating to the validity and infringement of patents or other proprietary rights of third parties. Litigation may be costly and time-consuming, and could divert the attention of our management and technical personnel. If we are found to have violated the trademark, trade secret, copyright, patent or other intellectual property or proprietary rights of others, such a finding could result in the need to cease use of a trademark, trade secret, copyrighted work or patented invention in our business and the obligation to pay a substantial amount for past infringement. If the rights holders are willing to permit us to continue to use their intellectual property rights, it may be necessary for us to enter into license arrangements with unfavorable terms and pay substantial amounts in royalty and other license fees. Either having to cease use or pay such amounts could prevent us from manufacturing and selling our products, which could make us much less competitive in our industry and have a material adverse impact on our business, operating results and financial condition.

We may become subject to product liability claims

As a business that manufactures and markets products for use by consumers and institutions, we may become liable for any damage caused by our products, whether used in the manner intended or not. Regardless of merit or potential outcome, product liability claims against us may result in, among other effects, the inability to commercialize our products, impairment of our business reputation, and distraction of management’s attention from our primary business. If we cannot successfully defend ourselves against product liability claims we could incur substantial liabilities. Although we maintain general and product liability insurance, our insurance may not cover potential claims and may not be adequate to indemnify for liabilities that may be imposed. Any imposition of liability that is not covered by insurance or is in excess of insurance coverage could harm our business and operating results.

We are currently involved in litigation, and such existing litigation, other litigation or the actions of regulatory authorities may harm our business or otherwise distract our management

Substantial, complex or extended litigation could cause us to incur major expenditures and would distract our management. We are currently involved in litigation with Richmont Sciences, LLC and Richmont Holdings, LLC. On June 29, 2011, we filed suit against Richmont Sciences, LLC asserting various causes of action to collect on an outstanding invoice. Richmont Sciences, LLC and Richmont Holdings, LLC filed a cross-complaint for damages against us asserting contract, tort and statutory (trade secret) claims arising out of business dealings with us. We then filed a cross-complaint for compensatory and punitive damages against both Richmont entities asserting contract and fraud claims. The San Diego County Superior Court has since ordered that we participate in mediation with both Richmont entities to attempt to resolve the dispute, which must commence no later than August 30, 2012. If such mediation is not successful and the dispute continues to trial, the court has established November 26, 2012 as the date for the commencement of the trial. We intend to vigorously pursue our claims and defend against the cross-claims of the Richmont entities, which may divert management’s attention and consequently have a negative impact on our business. Further, although we are unable to determine the length of the dispute or the likelihood or amount of any adverse judgment in this litigation and resources, our involvement in this litigation could be costly and adversely affect our financial condition.

Other lawsuits or actions could from time to time be filed against us and/or or our executive officers and directors. For example, lawsuits by employees, former employees, stockholders, partners, customers, or others, or actions taken by regulatory authorities, could be very costly and substantially disrupt our business. Such lawsuits and actions are not uncommon, and we may not be able to resolve such disputes or actions on terms favorable to us, and there may not be sufficient capital resources available to defend such actions effectively, or at all.

We could be negatively affected as a result of a threatened proxy fight

We have received a notice from Richmont Corporation, or Richmont, and such notice, the Richmont Notice, announcing its intended nomination of six individuals for election to our Board of Directors at our 2012 annual meeting. In the Richmont Notice, Richmont confirmed its ownership of shares of our common stock, which shares represent less than one half of one percent of our outstanding common stock. Since our receipt of the Richmont Notice: on December 23, 2011, Richmont filed a preliminary proxy statement with the SEC describing its intended nomination of such individuals and, among other things, confirming its intent to terminate our ongoing litigation with Richmont Sciences, LLC and enter into a new, unspecified relationship with such entity in the event Richmont's proxy contest is successful; on February 17, 2012, we announced the date of our 2012 annual meeting of stockholders as July 25, 2012; and on February 27, 2012, Richmont filed a revised preliminary proxy statement in response to such announcement. If a proxy contest results from these actions by Richmont, our business could be adversely affected because:

- responding to proxy contests and other actions by insurgent stockholders can be costly and time-consuming, disrupting our operations and diverting the attention of management and our employees;

- perceived uncertainties as to our future direction may impact our existing and potential collaborations or strategic relationships and may make it more difficult to attract and retain qualified personnel; and
- if individuals are elected to our Board of Directors with a specific agenda, it may adversely affect our ability to effectively and timely implement our strategic plan.

As stated above, Richmont has identified as part of its intended agenda the termination of our ongoing litigation with Richmont Sciences, LLC and the entry into a new, unspecified relationship with Richmont Sciences, LLC. We believe implementation of Richmont's stated agenda would materially and adversely affect our business and our future prospects in the event that Richmont is successful in its proxy contest.

Maintaining compliance with our obligations as a public company may strain our resources and distract management, and if we do not remain compliant our stock price may be adversely affected

Our common stock is registered under the Securities Exchange Act of 1934, as amended, or the Exchange Act. It is therefore subject to the information, proxy solicitation, insider trading and other restrictions and requirements of the SEC under the Exchange Act. Both the U.S. Congress and the SEC continue to issue new and proposed rules, and complying with existing and new rules has caused, and will continue to cause, us to devote significant financial and other resources to maintain our status as a public company. In addition, in April 2008 we obtained a listing of our common stock on the NASDAQ Capital Market, adding the additional cost and administrative burden of maintaining such a listing. These additional regulatory costs and requirements will reduce our future profits or increase our future losses, and an increasing amount of management time and effort will be needed to meet our regulatory obligations.

We are required to evaluate our internal control systems in order to allow management to report on our internal controls as required by Section 404 of the Sarbanes-Oxley Act of 2002, and our management is required to attest to the adequacy of our internal controls. Recent SEC pronouncements suggest that in the next several years we may be required to report our financial results using new International Financial Reporting Standards, replacing GAAP, which would require us to make significant investments in training, hiring, consulting and information technology, among other investments. All of these and other reporting requirements and heightened corporate governance obligations that we face, or will face, will further increase the cost to us, perhaps substantially, of remaining compliant with our obligations under the Exchange Act and other applicable laws, including the Sarbanes-Oxley Act and the Dodd-Frank Act of 2010. In order to meet these incremental obligations, we will need to invest in our corporate and accounting infrastructure and systems, and acquire additional services from third party auditors and advisors. As a result of these requirements and investments, we may incur significant additional expenses and may suffer a significant diversion of management's time. There is no guarantee that we will be able to continue to meet these obligations in a timely manner, and we could therefore be subject to sanctions or investigation, or the delisting of our common stock, by regulatory authorities such as the SEC or the NASDAQ Capital Market. Any such actions could adversely affect the market price of our common stock, perhaps significantly.

Our publicly-filed reports are reviewed from time to time by the SEC, and any significant changes or amendments required as a result of any such review may result in material liability to us and may have a material adverse impact on the trading price of our common stock

The reports and other securities filings of publicly-traded companies are subject to review by the SEC from time to time for the purpose of assisting companies in complying with applicable disclosure requirements. The SEC is required, pursuant to the Sarbanes-Oxley Act of 2002, to undertake a comprehensive review of a company's reports at least once every three years, although an SEC review may be initiated at any time. While we believe that our previously filed SEC reports comply, and we intend that all future reports will comply, in all material respects with the published rules and regulations of the SEC, we could be required to modify, amend or reformulate information contained in our filings as a result of any SEC review. Any modification, amendment or reformulation of information contained in such reports could be significant and result in material liability to us and have a material adverse impact

on the trading price of our common stock.

We are dependent on our management team

Our success depends largely upon the continued services of our executive officers and other key personnel. Our executive officers and key personnel could terminate their employment with us at any time without notice and without penalty.

We do not maintain key person life insurance policies on our executive officers or other employees, other than Michael L. Krall, our President and Chief Executive Officer. The policy we have on Mr. Krall would likely not provide a benefit sufficient to offset the financial losses resulting from the loss of Mr. Krall's future services. The loss of one or more of our executive officers or key employees could seriously harm our business, results of operations, financial condition, and/or the market price of our common stock. We cannot assure you that in such an event we would be able to recruit qualified personnel able to replace these individuals in a timely manner, or at all, on terms acceptable to either us or to any qualified candidate.

Because competition for highly qualified business development and bioengineering personnel is intense, we may not be able to attract and retain the employees we need to support our planned growth

To successfully meet our objectives, we must continue to attract and retain highly qualified business development and bioengineering personnel with specialized skill sets focused on the industries in which we compete, or intend to compete. Competition for qualified business development and bioengineering personnel can be intense. Our ability to meet our business development objectives will depend in part on our ability to recruit, train and retain top quality people with advanced skills who understand our technology and business. In addition, it takes time for our new personnel to become productive and to learn our business. If we are unable to hire or retain qualified business development and bioengineering personnel, it will be difficult for us to sell our products or to license our technology, or to achieve or maintain regulatory approvals, and we may experience a shortfall in revenue and not achieve our anticipated growth.

We may engage in strategic transactions that could impact our liquidity, increase our expenses and present significant distractions to our management

From time to time we may consider engaging in strategic transactions, such as acquisitions of companies, asset purchases and out-licensing or in-licensing of products, product candidates or technologies. Any such transaction may require us to incur non-recurring or other charges, may increase our near and long-term expenditures and may pose significant integration challenges or disrupt our management or business, which could adversely affect our operations and financial results. For example, these transactions may entail numerous operational and financial risks, including, among others, exposure to unknown liabilities, disruption of our business and diversion of our management's time and attention in order to develop acquired products, product candidates or technologies, difficulty and cost in combining the operations and personnel of any acquired businesses with our operations and personnel, and inability to retain key employees of any acquired businesses. Accordingly, although we may not choose to undertake or may not be able to successfully complete any transactions of the nature described above, any transactions that we do complete could have a material adverse effect on our business, results of operations, financial condition and prospects.

We may invest or spend our cash in ways with which you may not agree or in ways which may not yield a significant return

Our management has considerable discretion in the use of our cash. Our cash may be used for purposes that do not increase our operating results or market value. Until the cash is used, it may be placed in investments that do not produce significant income or that may lose value. The failure of our management to invest or spend our cash effectively could result in unfavorable returns and uncertainty about our prospects, each of which could cause the price of our common stock to decline.

We may not be able to utilize all, or any, of our tax net operating loss carry-forwards and our future after-tax earnings, if any, could be reduced

At July 31, 2011, we had federal and California tax net operating loss carry-forwards of approximately $64.7 million and $54.6 million, respectively. Utilization of these net operating loss carry-forwards may be subject to a substantial annual limitation due to ownership change limitations that may have occurred or that could occur in the future, as required by Section 382 of the Internal Revenue Code as well as similar state provisions. These ownership changes may limit the amount of net operating loss carry-forwards that can be utilized annually to offset future taxable income and tax, respectively. In general, an ownership change, as defined by Section 382 of the Internal Revenue Code, results from a transaction or series of transactions over a three-year period resulting in an ownership change of more than 50 percentage points of the outstanding stock of a company by certain stockholders or public groups. Since our formation, we have raised capital through the issuance of capital stock on several occasions (both before and after our initial public offering in 1996) which, combined with the purchasing stockholders' subsequent disposition of those

shares, may have resulted in such an ownership change, or could result in an ownership change in the future based upon subsequent disposition. While we believe that we have not experienced an ownership change, the pertinent tax rules related thereto are complex and subject to varying interpretations, and thus complete assurance cannot be provided that the taxing authorities would not take an alternative position.

Our current federal tax loss carry-forwards began expiring in the year ended July 31, 2011 and, unless previously utilized, will completely expire in the year ending July 31, 2030. In the years ending July 31, 2012 and 2013, $3.3 million of our federal net operating loss carry-forwards will expire, and the balance of our current federal net operating loss carry-forwards will expire between July 31, 2018 and July 31, 2030. Our California tax loss carry-forwards will begin to expire in the year ending July 31, 2014, and will completely expire in the year ending July 31, 2030. If we are unable to earn sufficient profits to utilize the carry-forwards by these dates, they will no longer be available to offset future profits, if any.

We are subject to tax audits by various tax authorities in multiple jurisdictions

From time to time we may be audited by tax authorities to whom we are subject. Any assessment resulting from such audits, if any, could result in material changes to our past or future taxable income, tax payable or deferred tax assets, and could require us to pay penalties and interest that could materially adversely affect our financial results.

Risks Related to the Lincoln Park Transaction and our Common Stock

The price of our common stock may be volatile, which may cause investment losses for our stockholders

The price and trading volume of our common stock have historically been volatile. For example, in the twelve months through April 9, 2012, the closing market price of our common stock ranged from $0.24 per share to $1.64 per share, and the monthly trading volume varied from approximately 1.8 million shares to 15.5 million shares. Our agreements with Lincoln Park to sell up to an aggregate of $10,000,000 of our common stock to Lincoln Park, a portion of which has been registered under our currently effective shelf registration statement and the remainder of which is to be registered in this offering, could increase the volatility of the price of our common stock for the duration of such agreements. Other factors that could contribute to the continued volatility of the market price of our common stock include:

- actual or anticipated fluctuations in our results of operations;
- the introduction of new products or services, or product or service enhancements by us or our competitors;
- developments with respect to our or our competitors' intellectual property rights or regulatory approvals or denials;
- announcements of significant acquisitions or other agreements by us or our competitors;
- the sale by us of our common or preferred stock or other securities, or the anticipation of sales of such securities;
- sales or anticipated sales of our common stock by our insiders (management and directors);
- the trading volume of our common stock, particularly if such volume is light;
- conditions and trends in our industry;
- changes in our pricing policies or the pricing policies of our competitors;
- changes in the estimation of the future size and growth of our markets; and, among other factors,
- general economic conditions.

In addition, the stock market in general, the NASDAQ Capital Market, and the market for shares of novel technology and biotechnology companies in particular, have experienced extreme price and volume fluctuations that have often been unrelated or disproportionate to the operating performance of those companies. Further, the market prices of bioscience companies have been unusually volatile in the last year, and such volatility may continue for the foreseeable future. These broad market and industry factors may materially harm the market price of our common stock, regardless of our operating performance. In addition, this volatility could adversely affect an investor's ability to sell shares of our common stock, and/or the available price for such shares, at any given time.

Following periods of volatility in the market price of a company's securities, stockholder derivative lawsuits and securities class action litigation are common. Such litigation, if instituted against us or our officers and directors, could result in substantial costs and a diversion of management's attention and resources.

The sale or issuance of our common stock to Lincoln Park may cause dilution and the sale of the shares of common stock acquired by Lincoln Park, or the perception that such sales may occur, could cause the price of our common stock to fall

On December 14, 2011, we entered into the $7.5M Purchase Agreement with Lincoln Park, pursuant to which Lincoln Park has committed to purchase up to $7,500,000 of our common stock and we issued an additional 470,711 shares of our common stock to Lincoln Park as a fee for its commitment to purchase such shares. The shares to be sold pursuant

to the $7.5M Purchase Agreement are to be sold by us to Lincoln Park at our discretion from time to time over a 36-month period commencing after the SEC has declared effective the registration statement that includes this prospectus. On December 15, 2011, we entered into an additional purchase agreement with Lincoln Park, or the $2.5M Purchase Agreement, pursuant to which we may issue to Lincoln Park up to $2,500,000 of our common stock (subject to certain limitations) and we issued as additional 156,904 shares of our common stock to Lincoln Park as a fee for its commitment to purchase such shares.

Other than Lincoln Park's initial purchase under the $2.5M Purchase Agreement in December 2011 of 1,347,709 shares of our common stock at a price per share of $0.371 for an aggregate amount of $500,000, or the Initial Purchase, the purchase price for the shares that we may sell to Lincoln Park under either the $2.5M Purchase Agreement or the $7.5M Purchase Agreement will fluctuate based on the price of our common stock. Depending on market liquidity at the time, sales of such shares may cause the trading price of our common stock to fall.

We generally have the right to control the timing and amount of any sales of our shares to Lincoln Park, except that, pursuant to the terms of our agreements with Lincoln Park, we would be unable to sell shares to Lincoln Park if and when the market price of our common stock is below $0.25 per share for purposes of sales under the $2.5M Purchase Agreement and, pursuant to the amendment thereto, if and when the market price of our common stock is below $0.20 per share for purposes of sales under the $7.5M Purchase Agreement. Sales of our common stock, if any, to Lincoln Park will depend upon market conditions and other factors to be determined by us. As such, other than the Initial Purchase, Lincoln Park may ultimately purchase all, some or none of the shares of our common stock that may be sold pursuant to such agreements and, after it has acquired shares, Lincoln Park may sell all, some or none of those shares. Therefore, sales to Lincoln Park by us could result in substantial dilution to the interests of other holders of our common stock. Additionally, the sale of a substantial number of shares of our common stock to Lincoln Park, or the anticipation of such sales, could make it more difficult for us to sell equity or equity-related securities in the future at a time and at a price that we might otherwise wish to effect sales.

We may not be able to maintain our NASDAQ listing

In April 2008, we obtained a listing for our common stock on the NASDAQ Capital Market. In order to maintain our listing, we will need to continue to meet certain listing standards that include maintaining minimum thresholds of stockholders' equity, market value of our listed or publicly held securities, number of publicly held shares, bid price for our common stock, number of stockholders, number of market makers, and our net income. In addition, certain of our corporate governance policies are required to remain compliant with standards determined, and amended from time to time, by NASDAQ.

On September 16, 2011 and March 15, 2012, we received deficiency letters from NASDAQ notifying us that our common stock is at risk of delisting from the NASDAQ Capital Market due to noncompliance with NASDAQ Listing Rule 5550(a)(2), which requires that the minimum bid price of our common stock equal or exceed $1.00 during the periods required by applicable NASDAQ rules. On March 22, 2012, we appealed NASDAQ's delisting determination in accordance with NASDAQ's applicable procedures by submitting a request for an oral hearing by a NASDAQ Hearings Panel, or the Panel, which hearing has been scheduled to take place on April 26, 2012. On March 23, 2012, we received from NASDAQ an additional determination letter notifying us that, based on our stockholders' equity as reported in our Quarterly Report on Form 10-Q for the period ended January 31, 2012, we do not satisfy the minimum stockholders' equity for continued listing on the NASDAQ Capital Market under NASDAQ Listing Rule 5550(b)(1). As described in the additional determination letter, our failure to meet the minimum stockholders' equity serves as an additional basis for delisting our common stock from the NASDAQ Capital Market and the Panel will consider the matter in rendering its decision on our appeal and its determination regarding the continued listing of our common stock on the NASDAQ Capital Market. Our common stock will remain listed on the NASDAQ Capital Market pending the Panel's decision.

In connection with out appeal, we expect that we will submit for the Panel's consideration a written plan of compliance, which, according to NASDAQ guidance, should include a commitment to implement a reverse stock split within 180 days of the applicable delisting notification when the delisting determination is the result of noncompliance with the $1.00 minimum bid price requirements. If we submit a plan of compliance that contemplates a reverse stock split, we would need the approval of our stockholders to effectuate the plan, which we may not be able to obtain. Additionally, management time and expense will be required in connection with our appeal, which could harm our business and operating results. Further, we may decide to discontinue our efforts to pursue our appeal or our appeal may not be successful. If our appeal is not successful, or if we choose to discontinue our appeal, then our common stock will be delisted. Such delisting could cause our common stock to be classified as "penny stock," among other potentially detrimental consequences, any of which could significantly impact your ability to sell your shares of our common stock or to sell your shares at a price that you may deem to be acceptable.

We have never paid dividends on our capital stock, and we do not anticipate paying any cash dividends in the foreseeable future

The continued operation and expansion of our business will require substantial funding. Investors seeking cash dividends in the foreseeable future should not purchase our common stock. We have paid no cash dividends on any of our capital stock to date and we currently intend to retain our available cash to fund the development and growth of our business. Any determination to pay dividends in the future will be at the discretion of our Board and will depend upon results of operations, financial condition, contractual restrictions, restrictions imposed by applicable law and other factors our Board deems relevant. We do not anticipate paying any cash dividends on our common stock in the foreseeable future. Any return to stockholders will therefore be limited to the appreciation of their stock, which may never occur.

Anti-takeover provisions under our charter documents and Delaware law could delay or prevent a change of control and could also limit the market price of our stock

Certain provisions of our charter and bylaws may delay or frustrate the removal of incumbent directors and may prevent or delay a merger, tender offer, or proxy contest involving us that is not approved by our Board, even if such events may be beneficial to the interests of stockholders. For example, our Board, without stockholder approval, has the authority and power to authorize the issuance of up to 5,000,000 shares of preferred stock and such preferred stock could have voting or conversion rights which could adversely affect the voting power of the holders of our common stock. In addition, we are governed by the provisions of Section 203 of the Delaware General Corporation Law, which may discourage, delay or prevent certain business combinations with stockholders owning 15% or more of our outstanding voting stock. These and other provisions in our charter documents may make it more difficult for stockholders or potential acquirers to initiate actions that are opposed by the then-current board of directors, including delaying or impeding a merger, tender offer, or proxy contest or other change of control transaction involving our company. Any delay or prevention of a change of control transaction could cause stockholders to lose a substantial premium over the then-current market price of their shares.

CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING STATEMENTS

This prospectus, including the documents incorporated by reference in this prospectus, contains forward-looking statements within the meaning of Section 27A of the Securities Act and Section 21E of the Exchange Act. These statements involve known and unknown risks, uncertainties and other important factors that may cause our actual results, performance or achievements to be materially different from any future results, performances or achievements expressed or implied by the forward-looking statements. These forward-looking statements include, but are not limited to, those concerning the following:

- our expectations regarding our future operating results or financial performance;
- our intentions, expectations and beliefs regarding anticipated growth, market penetration and trends in our business;
- the timing, costs and other limitations involved in obtaining regulatory approval for any product;
- our ability to commercialize and achieve market acceptance of our current products and any new products that we may develop;
- our ability to enter into any collaboration with respect to any of our products or product candidates;
- our ability to protect our intellectual property and operate our business without infringing upon the intellectual property rights of others;
- our ability to retain the services of our current executive officers, directors and key employees;
- our ability to continue to operate our business with our current financial resources; and
- our estimates regarding our future performance and our needs for additional financing.

In some cases, you can identify forward-looking statements by terms such as “anticipate,” “believe,” “can,” “continue,” “could” “estimate,” “expect,” “intend,” “may,” “plan,” “potential,” “predict,” “project,” “should,” “will,” “would” or the negative of th other comparable terminology or expressions. Forward-looking statements reflect our current views with respect to future events, are based on assumptions, and are subject to known and unknown risks and uncertainties and other factors. We discuss many of these risks and uncertainties in greater detail under the heading “Risk Factors” elsewhere in this prospectus. Given these and other risks and uncertainties and other factors, you should not place undue reliance on these forward-looking statements because some or all of them may turn out to be wrong. You should read this prospectus, including the documents incorporated by reference herein, and the other information in this registration statement carefully and completely and with the understanding that our actual future results may be materially different from what we expect. We hereby qualify all of our forward-looking statements by these cautionary statements.

Forward-looking statements represent our estimates and assumptions only as of the date such forward-looking statements are made. Except as required by law, we assume no obligation to update any forward-looking statements publicly, or to update the reasons actual results could differ materially from those anticipated in any forward-looking statements, even if new information becomes available in the future.

You should consult any additional disclosures we make in our quarterly reports on Form 10-Q, annual report on Form 10-K and current reports on Form 8-K filed with the SEC that are incorporated by reference in this prospectus. See “Where You Can Find More Information” on page 53 of this prospectus.

USE OF PROCEEDS

This prospectus relates to shares of our common stock that may be offered and sold from time to time by Lincoln Park. We will receive no proceeds from the sale of shares of common stock in this offering. However, we may receive gross proceeds of up to $7,500,000 under the $7.5M Purchase Agreement. We estimate that the net proceeds to us from the sale of our common stock to Lincoln Park pursuant to the $7.5M Purchase Agreement will be up to $6,992,000 over an approximately 36-month period, assuming that we sell the full amount of our common stock that we have the right, but not the obligation, to sell to Lincoln Park under that agreement and taking into account cash fees to be paid by us to Wharton Capital Markets LLC, and other estimated fees and expenses. See “Plan of Distribution” elsewhere in this prospectus for more information.

We expect to use any proceeds that we receive under the $7.5M Purchase Agreement for general corporate purposes, which may include, among other things, sales and marketing efforts relating to our products and product candidates. The amounts and timing of our actual expenditures will depend on numerous factors, including the status of our product sales and marketing efforts, the amount of proceeds actually raised from sales under the $7.5M Purchase Agreement, and the amount of cash generated through our existing strategic collaborations and any additional strategic collaborations into which we may enter. Accordingly, our management will have significant flexibility in applying any net proceeds that we receive pursuant to the $7.5M Purchase Agreement.

SELLING STOCKHOLDER

This prospectus relates to the possible resale by the selling stockholder, Lincoln Park, of shares of common stock that we may issue to Lincoln Park pursuant to the $7.5M Purchase Agreement. We are filing the registration statement of which this prospectus forms a part pursuant to the provisions of the Registration Rights Agreement, which we entered into with Lincoln Park on December 14, 2011 concurrently with the $7.5M Purchase Agreement, in which we agreed to provide certain registration rights with respect to sales by Lincoln Park of the shares of our common stock that may be issued to Lincoln Park under the $7.5M Purchase Agreement.

Lincoln Park, as the selling stockholder, may, from time to time, offer and sell pursuant to this prospectus any or all of the shares that we sell to Lincoln Park under the $7.5M Purchase Agreement. The selling stockholder may sell some, all or none of its shares. We do not know how long the selling stockholder will hold the shares before selling them, and we currently have no agreements, arrangements or understandings with the selling stockholder regarding the sale of any of the shares.

The following table presents information regarding the selling stockholder and the shares that it may offer and sell from time to time under this prospectus. The table is prepared based on information supplied to us by the selling stockholder, and reflects its holdings as of April 9, 2012. Neither Lincoln Park nor any of its affiliates has held a position or office, or had any other material relationship, with us or any of our predecessors or affiliates. As used in this prospectus, the term “selling stockholder” includes Lincoln Park and any donees, pledgees, transferees or other successors in interest selling shares received after the date of this prospectus from Lincoln Park as a gift, pledge or other non-sale related transfer. Beneficial ownership is determined in accordance with Rule 13d-3(d) promulgated by the SEC under the Exchange Act. The percentage of shares beneficially owned prior to the offering is based on 47,697,074 shares of our common stock actually outstanding as of April 9, 2012.

Selling Stockholder	Shares Beneficially Owned Before this Offering	Percentage of Outstanding Shares Beneficially Owned	Shares to be Sold in this Offering	Percentage of Outstanding Shares Beneficially Owned

		Before this Offering		After this Offering
Lincoln Park Capital Fund, LLC (1)	1,760,724 (2)	3.7% (3)	12,470,711 (4)	2.1% (4)

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(1) Josh Scheinfeld and Jonathan Cope, the Managing Members of Lincoln Park Capital, LLC, are deemed to be beneficial owners of all of the shares of common stock owned by Lincoln Park Capital Fund, LLC. Messrs. Cope and Scheinfeld have shared voting and investment power over the shares being offered under the prospectus filed with the SEC in connection with the transactions contemplated under the $7.5M Purchase Agreement. Lincoln Park Capital, LLC is not a licensed broker dealer or an affiliate of a licensed broker dealer.

(2) Includes 470,711 shares of our common stock previously issued to Lincoln Park under the $7.5M Purchase Agreement as consideration for its commitment to purchase the additional shares covered by the registration statement that includes this prospectus, and shares purchased by and sold to Lincoln Park pursuant to the $2.5M Purchase Agreement. See the description under the heading “The Lincoln Park Transaction” for more information about the $2.5M Purchase Agreement.

(3) Based on 47,697,074 outstanding shares of our common stock as of April 9, 2012, which includes 470,711 shares of our common stock that have been previously issued to Lincoln Park under the $7.5M Purchase Agreement and 5,704,613 shares that have been previously issued to Lincoln Park under the $2.5M Purchase Agreement. Although we may at our discretion elect to issue to Lincoln Park up to an aggregate amount of $10,000,000 of our common stock under the $7.5M Purchase Agreement and the $2.5M Purchase Agreement, collectively, other than the shares described in the immediately preceding sentence, such shares are not included in determining the percentage of shares beneficially owned before this offering.

(4) Assumes that we issue the maximum number of shares covered by the registration statement that includes this prospectus, and that Lincoln Park resells all such shares. In calculating the percentage, the numerator includes shares purchased by and sold to Lincoln Park pursuant to the $2.5M Purchase Agreement that are beneficially owned by Lincoln Park as of April 9, 2012, and the numerator and denominator exclude shares that we may sell to Lincoln Park under the $2.5M Purchase Agreement after that date. See the description under the heading "The Lincoln Park Transaction" for more information about the $2.5M Purchase Agreement. Although the $7.5M Purchase Agreement provides that we may sell up to $7,500,000 of our common stock to Lincoln Park, we are only registering 12,470,711 shares under this prospectus (inclusive of the 470,711 shares issued to Lincoln Park as a commitment fee), which may or may not cover all shares we ultimately sell to Lincoln Park under the $7.5M Purchase Agreement, depending on the purchase price per share for such sales.

PLAN OF DISTRIBUTION

The common stock offered by this prospectus is being offered by the selling stockholder, Lincoln Park. The common stock may be sold or distributed from time to time by the selling stockholder directly to one or more purchasers or through brokers, dealers, or underwriters who may act solely as agents at market prices prevailing at the time of sale, at prices related to the prevailing market prices, at negotiated prices, or at fixed prices, which may be changed. The sale of the common stock offered by this prospectus could be effected in one or more of the following methods:

- ordinary brokers' transactions;
- transactions involving cross or block trades;
- through brokers, dealers, or underwriters who may act solely as agents
- "at the market" into an existing market for the common stock;
- in other ways not involving market makers or established business markets, including direct sales to purchasers or sales effected through agents;
- in privately negotiated transactions; or
- any combination of the foregoing.

In order to comply with the securities laws of certain states, if applicable, the shares may be sold only through registered or licensed brokers or dealers. In addition, in certain states, the shares may not be sold unless they have been registered or qualified for sale in the state or an exemption from the state's registration or qualification requirement is available and complied with.

Lincoln Park is an "underwriter" within the meaning of Section 2(a)(11) of the Securities Act.

Lincoln Park has informed us that it intends to use an unaffiliated broker-dealer to effectuate all sales, if any, of the common stock that it may purchase from us pursuant to the $7.5M Purchase Agreement. Such sales will be made on the NASDAQ Capital Market at prices and at terms then prevailing or at prices related to the then current market price. Each such unaffiliated broker-dealer will be an underwriter within the meaning of Section 2(a)(11) of the Securities Act. Lincoln Park has informed us that each such broker-dealer will receive commissions from Lincoln Park that will not exceed customary brokerage commissions. In compliance with the guidelines of the Financial Industry Regulatory Authority, Inc., or FINRA, the maximum consideration or discount to be received by any FINRA member or independent broker dealer may not exceed 8% of the aggregate amount of the securities offered pursuant to

this prospectus.

Brokers, dealers, underwriters or agents participating in the distribution of the shares as agents may receive compensation in the form of commissions, discounts, or concessions from the selling stockholder and/or purchasers of the common stock for whom the broker-dealers may act as agent. The compensation paid to a particular broker-dealer may be less than or in excess of customary commissions. Neither we nor Lincoln Park can presently estimate the amount of compensation that any agent will receive.

We know of no existing arrangements between Lincoln Park or any other stockholder, broker, dealer, underwriter or agent relating to the sale or distribution of the shares offered by this prospectus. At the time a particular offer of shares is made, a prospectus supplement, if required, will be distributed that will set forth the names of any agents, underwriters or dealers and any compensation from the selling stockholder, and any other required information.

We will pay the expenses incident to the registration, offering, and sale of the shares to Lincoln Park. We have agreed to indemnify Lincoln Park and certain other persons against certain liabilities in connection with the offering of shares of common stock offered hereby, including liabilities arising under the Securities Act or, if such indemnity is unavailable, to contribute amounts required to be paid in respect of such liabilities. Lincoln Park has agreed to indemnify us against liabilities under the Securities Act that may arise from certain written information furnished to us by Lincoln Park specifically for use in this prospectus or, if such indemnity is unavailable, to contribute amounts required to be paid in respect of such liabilities.

Lincoln Park has represented to us that at no time prior to the $7.5M Purchase Agreement has Lincoln Park or its agents, representatives or affiliates engaged in or effected, in any manner whatsoever, directly or indirectly, any short sale (as such term is defined in Rule 200 of Regulation SHO of the Exchange Act) of our common stock or any hedging transaction, which establishes a net short position with respect to our common stock. Lincoln Park agreed that during the term of the $7.5M Purchase Agreement, it, its agents, representatives or affiliates will not enter into or effect, directly or indirectly, any of the foregoing transactions.

We have advised Lincoln Park that it is required to comply with Regulation M promulgated under the Exchange Act. With certain exceptions, Regulation M precludes the selling stockholder, any affiliated purchasers, and any broker-dealer or other person who participates in the distribution from bidding for or purchasing, or attempting to induce any person to bid for or purchase any security which is the subject of the distribution until the entire distribution is complete. Regulation M also prohibits any bids or purchases made in order to stabilize the price of a security in connection with the distribution of that security. All of the foregoing may affect the marketability of the securities offered by this prospectus.

This offering will terminate on the date that all shares offered by this prospectus have been sold by Lincoln Park or may be sold by Lincoln Park without restriction under Rule 144(b)(1)(i) under the Securities Act.

In connection with the sale of our common stock to Lincoln Park pursuant to the $2.5M Purchase Agreement and the $7.5M Purchase Agreement, we agreed to pay a cash fee to Wharton Capital Markets LLC, or Wharton, pursuant to an engagement letter dated December 8, 2011, in an amount equal to 6% of the aggregate gross proceeds to us from such sales. Such amounts become due and payable to Wharton at the time that we actually receive funds from Lincoln Park pursuant to such sales. We also paid the filing fees associated with certain filings made by Wharton with the Corporate Finance Department of the Financial Industry Regulatory Authority, Inc., or FINRA, in connection with our arrangement. Additionally, we agreed to issue to Wharton a warrant, or the Warrant, to purchase 200,000 shares of our common stock with an exercise price of 110% of the closing sale price of our common stock on the date of the issuance of the Warrant. Our payment of cash fees and the issuance of the Warrant to Wharton were subject to our receipt of written confirmation that FINRA had determined not to raise any objection with respect to the fairness or reasonableness of the compensation terms of our arrangement with Wharton. On February 3, 2012, we received the applicable written confirmation from FINRA and issued to Wharton the Warrant at an exercise price of $0.451 per share. Neither the warrant issued to Wharton nor the shares to be issued thereunder are to be registered for sale or resale under the Securities Act pursuant to the registration statement that includes this prospectus.

Our common stock is listed on the NASDAQ Capital Market under the symbol “PURE”.

THE LINCOLN PARK TRANSACTION

General

We have entered into two purchase agreements and a registration rights agreement with Lincoln Park Capital Fund, LLC, or Lincoln Park. Pursuant to such agreements, Lincoln Park has agreed to purchase from us shares of our common stock for aggregate gross proceeds to us of up to $10 million, of which up to $2.5 million of our common

stock have been registered under our currently effective shelf registration statement and a related prospectus supplement, and 12,470,711 shares are covered by the registration statement of which this prospectus forms a part.

The $7.5M Purchase Agreement and the Registration Rights Agreement

On December 14, 2011, we entered into the $7.5M Purchase Agreement with Lincoln Park. Also on December 14, 2011, we entered into the Registration Rights Agreement with Lincoln Park. Pursuant to the terms of the $7.5M Purchase Agreement and the Registration Rights Agreement, Lincoln Park has agreed to purchase from us up to $7,500,000 of our common stock (subject to certain limitations) from time to time over a 36-month period. Pursuant to the terms of the Registration Rights Agreement, we have filed with the SEC the registration statement that includes this prospectus to register for resale under the Securities Act the shares that have been issued or may be issued to Lincoln Park under the $7.5M Purchase Agreement. Other than 470,711 shares of our common stock that we have already issued to Lincoln Park pursuant to the terms of the $7.5M Purchase Agreement as consideration for its commitment to purchase additional shares of our common stock under such agreement, we do not have the right to commence any sales to Lincoln Park under the $7.5M Purchase Agreement until the SEC has declared effective the registration statement of which this prospectus forms a part. Thereafter, we may, from time to time and generally at our sole discretion, direct Lincoln Park to purchase additional shares of our common stock up to an aggregate amount of $7,500,000 at a purchase price per share based on the market price of our common stock immediately preceding the time of sale as computed under the $7.5M Purchase Agreement without any fixed discount.

The $2.5M Purchase Agreement

On December 15, 2011, we entered into a purchase agreement with Lincoln Park, or the $2.5M Purchase Agreement, pursuant to which Lincoln Park agreed to purchase from us shares of our common stock for gross proceeds to us of up to $2,500,000 (subject to certain limitations), and, as consideration for Lincoln Park's commitment to purchase such shares, we issued to Lincoln Park 156,904 shares of our common stock. All such shares have been registered for sale under the Securities Act pursuant to our registration statement on Form S-3 (Registration No. 333-158555) and the related prospectus supplement filed with the SEC on December 15, 2011. None of the shares that have been issued or are to be issued to Lincoln Park under the $2.5M Purchase Agreement are covered by the registration statement of which this prospectus forms a part. Pursuant to the $2.5M Purchase Agreement, Lincoln Park initially purchased 1,347,709 shares of our common stock at a price per share of $0.371 for an aggregate amount of $500,000 under the $2.5M Purchase Agreement. Additionally, we may, from time to time and generally at our sole discretion during the 36-month period commencing on December 15, 2011, direct Lincoln Park to purchase additional shares of our common stock up to an aggregate amount of $2,000,000 at a purchase price per share based on the market price of our common stock immediately preceding the time of sale as computed under the $2.5M Purchase Agreement without any fixed discount.

Arrangement with Wharton Capital Markets

In connection with the sale of our common stock to Lincoln Park pursuant to the $2.5M Purchase Agreement and the $7.5M Purchase Agreement, we agreed to pay a cash fee to Wharton Capital Markets LLC, or Wharton, pursuant to an engagement letter dated December 8, 2011, in an amount equal to 6% of the aggregate gross proceeds to us from such sales. Such amounts become due and payable to Wharton at the time that we actually receive funds from Lincoln Park pursuant to such sales. We also paid the filing fees associated with certain filings made by Wharton with the Corporate Finance Department of the Financial Industry Regulatory Authority, Inc., or FINRA, in connection with our arrangement. Additionally, we agreed to issue to Wharton a warrant, or the Warrant, to purchase 200,000 shares of our common stock with an exercise price of 110% of the closing sale price of our common stock on the date of the issuance of the Warrant. Our payment of cash fees and the issuance of the Warrant to Wharton were subject to our receipt of written confirmation that FINRA had determined not to raise any objection with respect to the fairness or reasonableness of the compensation terms of our arrangement with Wharton. On February 3, 2012, we received the applicable written confirmation from FINRA and issued to Wharton the Warrant at an exercise price of $0.451 per share. Neither the warrant issued to Wharton nor the shares to be issued thereunder are to be registered for sale or resale under the Securities Act pursuant to the registration statement that includes this prospectus.

Purchase of Shares Under the $7.5M Purchase Agreement

Under the $7.5M Purchase Agreement, on any business day selected by us and as often as every two business days, we may direct Lincoln Park to purchase up to 200,000, 250,000 or 300,000 shares of our common stock. The purchase price per share for each such purchase will be equal to the lower of:

- the lowest sale price for our common stock reported on the NASDAQ Capital Market on the purchase date of such shares; or
- the arithmetic average of the three lowest closing sale prices for our common stock during the 12 consecutive business days ending on the business day immediately preceding the purchase date of such shares.

The purchase price per share will be equitably adjusted for any reorganization, recapitalization, non-cash dividend, stock split, reverse stock split or other similar transaction occurring during the business days used to compute the purchase price.

We may direct Lincoln Park, as often as every two business days, to purchase the following amounts of our common stock:

- up to 200,000 shares of our common stock if, on the date of such purchase, the closing sale price of our common stock is less than $1.50;
- up to 250,000 shares of our common stock if, on the date of such purchase, the closing sale price of our common stock equals or exceeds $1.50; and
- up to 300,000 shares of our common stock if, on the date of such purchase, the closing sale price of our common stock equals or exceeds $2.50.

There are no trading volume requirements or restrictions under the $7.5M Purchase Agreement, and we will control the timing and amount of any sales of our common stock to Lincoln Park.

Minimum Purchase Price

We and Lincoln Park initially set a floor price of $0.25 per share for sales by us to Lincoln Park under the $7.5M Purchase Agreement. Pursuant to the amendment to the $7.5M Purchase Agreement effective April 5, 2012, we and Lincoln Park have agreed to a revised floor price of $0.20 per share, which will be applicable to all sales by us to Lincoln Park under the $7.5M Purchase Agreement. Lincoln Park will have neither the right nor the obligation to purchase any shares of our common stock in the event that the purchase price per share would be less than the floor price.

Events of Default

Events of default under the $7.5M Purchase Agreement include the following:

- the effectiveness of the registration statement of which this prospectus forms a part lapses for any reason (including, without limitation, the issuance of a stop order), or any required prospectus supplement and accompanying prospectus are unavailable for the resale by Lincoln Park of our common stock offered hereby, and such lapse or unavailability continues for a period of 10 consecutive business days or for more than an aggregate of 30 business days in any 365-day period;
- suspension by our principal market of our common stock from trading for a period of 10 consecutive business days;
- the de-listing of our common stock from our principal market, provided our common stock is not immediately thereafter trading on the New York Stock Exchange, the NASDAQ Global Market, the NASDAQ Global Select Market, the NASDAQ Capital Market, the NYSE Amex or the OTC Bulletin Board (or nationally recognized successor thereto);
- the transfer agent's failure for five business days to issue to Lincoln Park shares of our common stock which Lincoln Park is entitled to receive under the $7.5M Purchase Agreement;
- any breach of the representations or warranties or covenants contained in the $7.5M Purchase Agreement or any related agreement which has or which could have a material adverse effect on us subject to a cure period of five business days;
- any voluntary or involuntary participation or threatened participation in insolvency or bankruptcy proceedings by or against us; or
- if we reach the share limit under applicable rules of The NASDAQ Stock Market (generally, 8,300,198 shares, or 19.99% of our outstanding shares prior to entering into the $7.5M Purchase Agreement with Lincoln Park), to the extent such rules are applicable, and we have not obtained any necessary shareholder approvals.

Lincoln Park does not have the right to terminate the $7.5M Purchase Agreement upon any of the events of default set forth above. During an event of default, all of which are outside the control of Lincoln Park, shares of our common stock cannot be sold by us or purchased by Lincoln Park under the terms of the $7.5M Purchase Agreement.

Our Termination Rights

We have the unconditional right, at any time, for any reason and without any payment or liability to us, to give notice to Lincoln Park to terminate the $7.5M Purchase Agreement. In the event of bankruptcy proceedings by or against us, the $7.5M Purchase Agreement will automatically terminate without action of any party.

No Short-Selling or Hedging by Lincoln Park

Lincoln Park has agreed that neither it nor any of its affiliates shall engage in any direct or indirect short-selling or hedging of our common stock during any time prior to the termination of the $7.5M Purchase Agreement.

Effect of Performance of the $7.5M Purchase Agreement on Our Stockholders

All 12,470,711 shares registered in this offering which may be sold by us to Lincoln Park under the $7.5M Purchase Agreement are expected to be freely tradable. It is anticipated that shares registered in this offering will be sold over a period of up to 36 months commencing on the date that the registration statement including this prospectus becomes effective. The sale by Lincoln Park of a significant amount of shares registered in this offering at any given time could cause the market price of our common stock to decline and to be highly volatile. Lincoln Park may ultimately purchase all, some or none of the 12,470,711 shares of common stock registered in this offering. If we sell these shares to Lincoln Park, Lincoln Park may sell all, some or none of such shares. Therefore, sales to Lincoln Park by us under the $7.5M Purchase Agreement may result in substantial dilution to the interests of other holders of our common stock. In addition, if we sell a substantial number of shares to Lincoln Park under the $7.5M Purchase Agreement, or if investors expect that we will do so, the actual sales of shares or the mere existence of our arrangement with Lincoln Park may make it more difficult for us to sell equity or equity-related securities in the future at a time and at a price that we might otherwise wish to effect such sales. However, we have the right to control the timing and amount of any sales of our shares to Lincoln Park and the $7.5M Purchase Agreement may be terminated by us at any time at our discretion without any cost to us.

Pursuant to the terms of the $7.5M Purchase Agreement, we have the right, but not the obligation, to direct Lincoln Park to purchase up to $7,500,000 of our common stock, exclusive of the 470,711 commitment shares that have been issued and are part of this offering. Depending on the price per share at which we sell our common stock to Lincoln Park, we may be authorized to issue and sell to Lincoln Park under the $7.5M Purchase Agreement more shares of our common stock than are offered under this prospectus. If we choose to do so, we must first register for resale under the Securities Act any such additional shares, which could cause additional substantial dilution to our stockholders. In addition, depending on the average price at which we sell shares to Lincoln Park under the $7.5M Purchase Agreement, if we seek to issue and sell more than 8,300,198 shares, representing 19.99% of our outstanding common stock on December 14, 2011, to Lincoln Park, we may be required to seek stockholder approval in order to remain in compliance with applicable rules of The NASDAQ Stock Market, which require stockholder approval for the issuance of more than 19.99% of a company's outstanding shares in a private placement at a discount to the greater of market or book value of the shares. The number of shares ultimately offered for resale by Lincoln Park under this prospectus is dependent upon the number of shares we direct Lincoln Park to purchase under the $7.5M Purchase Agreement.

The following table sets forth the amount of gross proceeds we would receive from Lincoln Park from our sale of shares to Lincoln Park under the $7.5M Purchase Agreement at varying purchase prices:

Assumed Average Purchase Price Per Share	Number of Registered Shares to be Issued if Full Purchase (1)(2)	Percentage of Outstanding Shares After Giving Effect to the Issuance to Lincoln Park (3)	Proceeds from the Sale of Shares to Lincoln Park Under the $7.5M Purchase Agreement (4)
$0.20 (5)	12,000,000	20.73%	$2,400,000
$0.29 (6)	12,000,000	20.73%	$3,480,000
$1.00	7,500,000	14.32%	$7,500,000
$2.50	3,000,000	6.78%	$7,500,000
$5.00	1,500,000	3.97%	$7,500,000

(1) Although the $7.5M Purchase Agreement provides that we may sell up to $7,500,000 of our common stock to Lincoln Park, we are only registering 12,470,711 shares under this prospectus (inclusive of the 470,711 shares issued to Lincoln Park as a commitment fee), which may or may not cover all the shares we ultimately sell to Lincoln Park under the $7.5M Purchase Agreement, depending on the purchase price per share. As a result, we have included in this column only those shares that we are registering in this offering.

(2) The number of registered shares to be issued excludes the 470,711 commitment shares because no proceeds will be attributable to such commitment shares.

(3) The denominator is based on 47,697,074 shares outstanding as of April 9, 2012, adjusted to include the 470,711 shares issued to Lincoln Park as commitment shares in connection with this offering and the number of shares set forth in the adjacent column which we would have sold to Lincoln Park at the applicable assumed average purchase price per share. The numerator also includes the 470,711 shares issued to Lincoln Park as commitment shares in connection with this offering, and is based on the number of shares registered in this offering to be issued under the $7.5M Purchase Agreement at the applicable assumed purchase price per share set forth in the adjacent column. The number of shares in such column does not include shares that may be issued to Lincoln Park which are not registered in this offering, whether under the $2.5M Purchase Agreement or otherwise.

(4) Amount of proceeds excludes certain fees to be paid by us to Wharton Capital Markets LLC for its assistance in arranging our agreements with Lincoln Park.

(5) Under the $7.5M Purchase Agreement and pursuant to the amended terms thereof, we may not sell and Lincoln Park may not purchase any shares in the event the purchase price of such shares is below $0.20.

(6) The closing sale price of our shares on April 9, 2012.

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MARKET PRICE OF OUR COMMON STOCK AND RELATED STOCKHOLDER MATTERS

Market Information

Our common stock is listed on the NASDAQ Capital Market under the symbol “PURE.” On April 9, 2012, the closing price of our common stock reported on the NASDAQ Capital Market was $0.29 per share. The following table sets forth, for each of the quarterly periods indicated, the high and low sales prices of our common stock, as reported on the NASDAQ Capital Market.

	High	Low
Year Ended July 31, 2010		
First Quarter ended October 31, 2009	$2.18	$1.50
Second Quarter ended January 31, 2010	$2.11	$1.22
Third Quarter ended April 30, 2010	$3.74	$1.27
Fourth Quarter ended July 31, 2010	$3.72	$1.80
Year Ended July 31, 2011		
First Quarter ended October 31, 2010	$3.05	$1.78
Second Quarter ended January 31, 2011	$3.07	$1.89
Third Quarter ended April 30, 2011	$2.22	$1.15
Fourth Quarter ended July 31, 2011	$1.50	$0.70
Year Ending July 31, 2012		
First Quarter ended October 31, 2011	$1.05	$0.63
Second Quarter ended on January 31, 2012	$0.70	$0.32
Third Quarter ending on April 30, 2012 (through April 9, 2012)	$0.53	$0.24

Holders

As of April 9, 2012, there were approximately 149 holders of record of our common stock. This does not include beneficial owners holding common stock in street name.

Dividend Policy

We have never paid dividends and have no current plans to do so. We currently anticipate that we will retain all of our future earnings, if any, for use in the development and expansion of our business and for general corporate purposes. Any determination to pay dividends in the future will be at the discretion of our Board of Directors and will depend upon our results of operations, financial condition and other factors that the Board, in its discretion, may deem relevant.

BUSINESS

Overview

We are focused on the discovery, development and commercialization of bioscience products that provide solutions to global health challenges. Our technology platform is based on stabilized ionic silver, and our current products contain silver dihydrogen citrate, or SDC. SDC is a broad-spectrum, non-toxic antimicrobial. We manufacture and sell SDC-based disinfecting and sanitizing products, which are registered by the EPA, to distributors and end users. We also manufacture and sell various SDC-based formulations to manufacturers for use as a raw material in the production of personal care and other products. We believe our technology platform has potential application in a number of industries, and we have ongoing research and development projects in food processing, agriculture, water treatment, pharmaceuticals, and oil and gas.

Technology Platform

The foundation of our technology platform is a proprietary electrochemical process that allows us to generate ionized silver in the presence of organic acid. This process creates a solution containing stabilized ionic silver that can function as an antimicrobial. Our current products contain SDC, which is produced by ionizing silver in citric acid. SDC is non-toxic, non-caustic, colorless, odorless and formulates well with other compounds. We believe that SDC is distinguished from other products in the marketplace because of its superior efficacy and toxicity profiles. We have also produced ionic silver-based molecular entities using other organic acids, and we believe these compounds may provide a platform for future product development.

Business Strategy

Our goal is to become a sustainable company by using our proprietary technology platform to deliver leading antimicrobial products in multiple industries.

Key aspects of our corporate strategy include:

- Expanding sales and distribution for currently marketed products;
- Increasing use of SDC in third party products and processes;
- Establishing strategic alliances to maximize the commercial potential of our technology platform;
- Developing additional proprietary products and applications; and
- Protecting and enhancing our intellectual property.

In addition to our current products, we seek to leverage our technology platform to develop new products, enter new markets and establish new partnerships that could potentially generate multiple sources of revenue.

Products

We manufacture and sell SDC-based products for end use, and as a raw material for manufacturing use. Our current products are as follows:

Product Name	Product Use	EPA Registration
PURE® Hard Surface	Disinfectant and sanitizer	SDC3A
Axen™ 30	Disinfectant	Axen30
Silvérion®	Raw material	Not applicable
Axenohl™	Raw material	Axenohl

PURE® Hard Surface

PURE® Hard Surface is our patented and EPA-registered hard surface disinfectant and food contact surface sanitizer. We manufacture both consumer and commercial versions of the product. PURE Hard Surface combines high efficacy and low toxicity with 30-second bacterial and viral kill times and 24-hour residual protection. The product completely kills resistant pathogens such as MRSA and Carbapenem-resistant Klebsiella pneumoniae (NDM-1), and effectively eliminates dangerous fungi and viruses including HIV, Hepatitis B, Hepatitis C, Norovirus, Influenza A, Avian Influenza and H1N1. It also eradicates hazardous food pathogens such as E. coli, Salmonella, Campylobacter and Listeria. PURE Hard Surface delivers broad-spectrum efficacy yet remains classified as least-toxic by the EPA. The active ingredient, SDC, has been designated as Generally Recognized as Safe, or GRAS, for use on food processing equipment, machinery and utensils.

Axen™ 30

Axen™30 is our patented and EPA-registered hard surface disinfectant and is a predecessor product to PURE Hard Surface. Axen30 is sold by distributors under the private label brands SpectraSan24, PureGreen24, Critical Care, Mother Nature's Choice, Ag+ainst24 and IV-7. In prior years, we sold this product to other distributors that resold Axen30 under a variety of other private label brands.

Silvérion®

Silvérion® is our patented antimicrobial formulation for use as a raw material in the manufacturing of personal care products. It can be used as either an active ingredient or a preservative. Silvérion is a colorless, odorless and stable solution that provides ionic silver in a water-soluble form. It provides fast-acting efficacy at low concentrations against a broad spectrum of bacteria, viruses, yeast and molds.

Axenohl™

Axenohl™ is our patented and EPA-registered antimicrobial formulation for use as a raw material in the manufacturing of EPA-registered products. Axenohl is a colorless, odorless and stable solution that provides fast-acting efficacy against bacteria, viruses and fungi when manufactured into consumer and commercial disinfecting and sanitizing products.

EPA Registrations

We sell our products under the following three EPA registrations: (i) SDC3A, our hard surface disinfectant and food contact surface sanitizer, (ii) Axen30, our hard surface disinfectant, and (iii) Axenohl, our antimicrobial formulation for use as a raw material in the manufacturing of EPA-registered products.

SDC3A Registration

The EPA registration for SDC3A, marketed as PURE Hard Surface, our disinfectant and food contact surface sanitizer, includes the following efficacy claims:

Organism	Kill Time
Pseudomonas aeruginosa	30 seconds
Salmonella enterica	30 seconds
Staphylococcus aureus	2 minutes
Listeria monocytogenes	2 minutes
Vancomycin resistant Enterococcus faecium (VRE)	2 minutes
Methicillin resistant Staphylococcus aureus (MRSA)	2 minutes
Community Associated Methicillin resistant Staphylococcus aureus (CA-MRSA)	2 minutes
Community Associated Methicillin resistant Staphylococcus aureus (CA-MRSA-PVL)	2 minutes
Escherichia coli O157:H7	2 minutes
Acinetobacter baumannii	2 minutes
Campylobacter jejuni	2 minutes
Carbapenem resistant Escherichia coli	2 minutes
Carbapenem resistant Klebsiella pneumoniae	2 minutes
Carbapenem resistant Klebsiella pneumonia, NDM-1 +	2 minutes
Trichophyton mentagrophytes (Athlete's Foot Fungus)	5 minutes
HIV type 1	30 seconds
Rotavirus	30 seconds
Human Coronavirus	30 seconds
Influenza A (H1N1)	30 seconds
Swine Influenza A (H1N1)	30 seconds

Respiratory Syncytial Virus	30 seconds
Adenovirus Type 2	30 seconds
Avian Influenza A	30 seconds
Influenza A	30 seconds
Hepatitis B Virus (HBV)	60 seconds
Hepatitis C Virus (HCV)	60 seconds
Murine Norovirus	60 seconds
Norovirus	60 seconds
Herpes Simplex Type 1	60 seconds
Rhinovirus	60 seconds
Polio Type 2	60 seconds

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The EPA registration for SDC3A also claims 24-hour residual protection against bacteria.

The EPA categorizes the toxicity of antimicrobial products from Category I to Category IV. The following table shows the EPA toxicity categories and required signal words for each category.

Toxicity Category	Signal Word
I	DANGER, POISON
II	WARNING
III	CAUTION
IV	None required

SDC3A is a Category IV product for which no signal words are required.

Axen30 Registration
Axen™30 is a hard surface disinfectant and is a predecessor product to SDC3A. It offers similar broad-spectrum efficacy but less effective kill times. Axen30 is not approved for use on food contact surfaces.

Axenohl Registration
Axenohl is registered as a raw material for the manufacturing of EPA-registered products and as such does not carry specific efficacy claims.

Intellectual Property

Our policy is to pursue patents, pursue trademarks, maintain trade secrets and use other means to protect our technology, inventions and improvements that are commercially important to the development of our business.

We have applied for U.S. and foreign patent protection for our SDC technology. Currently, we own nine patents which have been issued in the U.S. and twenty-seven patents which have been issued outside of the U.S. Additionally, we own seventy-one patents pending around the world. The expiration dates for our nine issued U.S. patents begin in 2018 and end in 2024. Additional patent applications may not be granted, or, if granted, may not provide adequate protection to us. We also intend to rely on whatever protection the law affords to trade secrets, including unpatented know-how. Other companies, however, may independently develop equivalent or superior technologies or processes and may obtain patents or similar rights with respect thereto, which could limit the practical benefits to us of our patents, trade secrets or other intellectual property rights.

Although we believe that we have developed our technology independently and have not infringed, and do not infringe, on the patents of others, third parties may make claims that our technology does infringe on their patents or other intellectual property rights. In the event of infringement, we may, under certain circumstances, be required to modify our infringing products or processes or obtain a license. We may not be able to do either of those things in a timely manner if at all, and failure to do so could have a material adverse effect on our business. In addition, we may not have the financial or other resources necessary to obtain any necessary licenses or defend any patent infringement or proprietary rights violation action or to enforce any such claims that we may have against third parties. If any of the products we develop infringe upon the patent or proprietary rights of others, we could, under certain circumstances, be enjoined or become liable for damages, which would have a material adverse effect on our business.

We also rely on confidentiality and nondisclosure agreements with our employees, consultants, advisors, licensees and potential partners to protect our technology, intellectual property and other proprietary property rights. We face the risk that such parties may breach such agreements or that such agreements will be inadequate or unenforceable and that, in such circumstances or as a result of other circumstances, our competitors may acquire information which we consider to be proprietary.

Further, we own the registered trademarks or pending trademark applications for PURE Bioscience®, Powered by SDC Ag+®, Staph Attack®, Staphacide®, Axenohl™, Axen™, Silvérion®, Kinderguard®, Cruise Control®, Nutripure™, Elderguard®, Critterguard® and Innovex®. In addition, we have applications for other trademarks pending around the world, which may or may not be granted.

Scientific Background

Silver as an Antimicrobial

The use of silver as an antimicrobial dates back to ancient times when people used silver vessels to keep water, wine and other beverages fresh. Ancient Egyptians applied thin strips of beaten silver around wounds to avoid infection, and early royalty ate from silver plates and with silver utensils to stay healthy.

Silver must be in an ionic form to be effective at killing microorganisms. In the past half-century, silver in colloidal and ionic forms has been used successfully in a wide array of antimicrobial applications, including water purification and topical treatments for burn victims. The short shelf-life of previous ionic silver solutions has limited the development of ionic-silver based antimicrobials. SDC, as a stabilized silver ion complex, has a shelf-life of more than a decade because the weak bond of the silver ion to the citric acid allows the ion to remain stable in solution while at the same time making it bioavailable for antimicrobial action.

SDC

SDC is a patented antimicrobial based on a stabilized silver ion complex. SDC is produced by a unique electrochemical process using silver and citric acid. The resulting solution is a colorless, low viscous liquid containing a water soluble silver salt of citric acid.

Mechanisms of Action

The rapid and broad-spectrum efficacy of SDC is attributed to its dual mechanisms of action. SDC can kill microorganisms at both the extracellular and intracellular levels. SDC attracts bacteria because the citric acid is recognized by the organism as a food source. SDC easily enters the microorganism through membrane transport proteins. Once inside the organism, SDC binds to DNA and intracellular proteins causing irreversible damage to the DNA and protein structure. Metabolic and reproductive functions halt, and the organism dies.

SDC can also act on an organism’s outer membrane. Silver ions are highly attracted to sulfur-containing thiol groups found in metabolic and structural proteins bound to the membrane surface. SDC targets these critical proteins and destroys their structure. This disruption of the organism’s membrane function and integrity lyses the membrane and the organism dies.

Viruses are much smaller than bacteria and present fewer target sites on which a biocide can act. The efficacy of SDC against enveloped and non-enveloped viruses comes from its ability to destroy not only the viral envelope, preventing the virus from attaching to a host cell, but also the infectious component of the virus, the nucleic acid.

Safety Profile

Research has shown that silver is an effective antimicrobial and not toxic to humans. In addition, our data shows the components of SDC, ionic silver and citric acid, to be non-toxic, particularly at the low concentrations required to eliminate microorganisms. At higher concentrations, citric acid can be an eye irritant. We have tested a concentrated SDC formulation using standard protocols to measure acute toxicity. Our results demonstrate that there is no toxicity associated with SDC. Acute oral and dermal toxicity was not observed at doses up to and including 5000 mg/kg, indicating lack of toxicity. Data from the eye and skin studies showed only slight irritation and no dermal sensitization.

SDC has been designated Generally Recognized as Safe, or GRAS, when used on food processing equipment, machinery and utensils. A committee of independent experts critically reviewed efficacy and toxicity data for SDC and PURE Hard Surface. The committee found no evidence that SDC demonstrates a hazard to the public when used on food contact surfaces and food-use utensils and therefore concluded these uses to be GRAS.

Efficacy

Formulations containing SDC provide complete, quick and broad-spectrum antimicrobial efficacy against gram positive and gram negative bacteria, enveloped and non-enveloped viruses, and fungi. In addition to quick kill times, SDC provides residual antimicrobial activity. SDC also provides rapid kill times against multiple drug resistant bacteria including Methicillin-resistant Staphylococcus aureus, or MRSA, Vancomycin resistant Enterococcus faecium, or VRE, Carbapenem resistant Escherichia coli, Carbapenem resistant Klebsiella pneumoniae and Carbapenem resistant Klebsiella pneumoniae, or NDM-1. See the description under the heading “EPA Registrations” elsewhere in this prospectus for detailed efficacy data.

Natural and Environmentally Responsible

SDC is made of simple and all-natural ingredients: water, citric acid and minute amounts of ionic silver. SDC is non-toxic. The safety profile for silver has been extensively reviewed in public literature and by U.S. government agencies and international organizations including the EPA, the Food and Drug Administration, or the FDA, the Agency for Toxic Substances and Disease Registry, the World Health Organization and the National Resource Center for Health Information Technology. There is no evidence of mutagenicity, carcinogenicity, neurotoxicity, reproductive or developmental effects due to silver.

SDC does not harm the environment. If introduced to water systems, the low concentrations of ionic silver in SDC would react with naturally present substances such as chlorides, sulfides and organic matter. These reactions would create insoluble silver complexes and render the silver inert.

SDC is manufactured through a “zero waste” process in which no byproducts are created.

Research and Development

We recognize the importance of innovation to our long-term success. A key aspect of our business strategy is to leverage our technology platform to develop additional proprietary products and applications. We are focused on the development of end use products and raw material formulations derived from our technology platform. We conduct our primary research and development activities in-house and use third party laboratories to conduct independent testing. We also engage with development partners to perform research and development activities at their own expense for specific products and processes using SDC. Our research and development expenses during the years ended July 31, 2011 and 2010 were $2,179,500 and $1,927,200, respectively.

We have developed several new SDC-based products, including a floor cleaner, a dilutable sanitizer and virucide, and skin cleansing wipes. We are in the early stage of introducing these products. In addition, we are continuing development of various other SDC-based products including a dilutable food contact surface sanitizer, hard surface disinfecting wipes and other textile applications, a cleaner/disinfectant product, products for use in the natural gas and petroleum industries, formulations for industrial biofilm control, high level disinfectants, agriculture treatments, food processing aids, food additives and preservatives, water treatment formulations as well as medical device and pharmaceutical products.

Sales and Marketing

Overview

A key aspect of our business strategy is to establish strategic alliances in order to maximize the commercial potential of our technology platform. We seek to form partnerships with industry leaders for a variety of uses and applications of our products and technology. We market and sell disinfecting and sanitizing products, which are registered by the EPA, to distributors and end users. We also market and sell various SDC-based formulations to manufacturers for use as a raw material in the production of personal care and other products. In addition, we license our products and technology to development and commercialization partners.

Alliance and Collaboration Relationships

In the past we have entered into alliance, collaboration and other similar agreements with third parties relating to the distribution and sales of our products. The current status of some of these agreements is discussed below.

Richmont Sciences, LLC

We previously had a nonexclusive alliance and distributorship relationship with Richmont Sciences, LLC, or Richmont Sciences, in which Richmont Sciences was to provide sales and marketing services for certain of our SDC-based products to commercial customers on a worldwide basis and serve as our distributor to sell certain of our

products through its affiliate company, IV-7 Direct. Additionally and in connection with that relationship, we and Richmont Sciences entered a commercial sales dealer agreement with High Scope General Trading, LLC, or High Scope, for High Scope to provide sales and marketing services for certain of our SDC-based products to commercial customers in certain countries, including Saudi Arabia and the United Arab Emirates. We do not have an equity interest in Richmont Sciences, IV-7 Direct, or High Scope.

For the year ended July 31, 2011, revenue recognized under the agreements governing our relationships with Richmont Sciences, IV-7 Direct and High Scope totaled less than $50,000. In June 2011, we terminated all of those agreements. Also in June 2011, we filed a lawsuit against Richmont Sciences to collect on outstanding invoices owed to us in connection with those agreements. See the description under the heading “Legal Proceedings” elsewhere in this prospectus.

FTA Bioscience, LLC

In June 2008, we entered into an exclusive collaboration, license and supply agreement with FTA Bioscience, LLC, or FTA. Under the terms of the agreement, we granted FTA a two-year license for the sole purpose of evaluating potential interest in the development and commercialization of certain SDC-based products. In June 2010, we entered into three exclusive license and supply agreements with FTA to develop and commercialize our patented SDC-based technology in wound care, as well as the treatment of nail fungus and athlete's foot. Under the terms of the agreements, we received three upfront payments of $10,000 each, totaling $30,000. We recognized $10,000 of revenue for the year ended July 31, 2011. We recognized $20,000 of revenue for the year ended July 31, 2010. Pursuant to our agreements with FTA, we are eligible to receive additional milestone payments, as well as royalty payments on net sales.

Competition

The markets for SDC and each of its potential applications are highly competitive. We have a number of competitors that vary in size, scope and breadth of products offered. Such competitors include some of the largest global corporations, and many of our competitors have significantly greater financial resources than we do. We expect to face additional competition from other competitors in the future.

Because SDC is a new technology, our success will depend, in part, upon our ability to achieve a share of our target markets at the expense of established and future products. Even where SDC may have technological competitive advantages over competing products, we, our partners or our distributors will need to invest significant resources in order to attempt to displace traditional technologies sold by, what are in many cases, well-known international industry leaders. Alternatively, we may pursue partnerships with existing competitors whereby these competitors would incorporate our products into their existing brands. This would reduce the proportion of end-use revenue that would accrue to us. To the extent that we were to grant any existing competitor or other third party exclusivity in any field or territory, we would risk having our technology marketed in a manner that may be less than optimal for us. We recognize that innovative marketing methods are required in order to be competitive in our industry and establish our products, and that such methods may not be successful.

Manufacturing

We manufacture and package our disinfectant and sanitizing products as well as various raw material formulations at our corporate headquarters in El Cajon, California. We have previously outsourced some manufacturing and packaging operations to one or more third parties, and may do so in the future where it is economically advantageous; however, we intend to maintain exclusive manufacturing of SDC-based raw material formulations in our facility.

Silver is the primary active ingredient in SDC and is a readily available commodity. The other active and inactive ingredients in our products are readily available from multiple sources.

Government Regulation

Our business is subject to various government regulations relating to the protection of public health and the environment. Among these are laws that regulate the manufacture, storage, distribution and labeling of our products, as well as the use, handling, storage and disposal of certain materials in the manufacturing of our products. Certain environmental and regulatory matters in and outside of the United States that are significant to us are discussed below.

Regulation in the United States

Requirements Imposed by the EPA and Similar State Agencies

We manufacture and sell in the U.S. certain disinfecting products that kill or reduce microorganisms (bacteria, viruses, fungi). The manufacture, labeling, handling and use of these products are regulated by the EPA under the Federal

Insecticide, Fungicide, and Rodenticide Act, or FIFRA. We currently sell three products registered by the EPA under FIFRA, certain of which are approved for use on food contact surfaces and others of which are approved for use on non-food contact hard surfaces. EPA product registration requires meeting certain efficacy, toxicity and labeling requirements and paying ongoing registration fees.

Although generally states do not impose substantive requirements different from those of the EPA, each state in which our EPA-registered products are sold requires registration and payment of a fee. California and certain other states have adopted additional regulatory programs applicable to these types of products that, in some cases, impose an additional fee on total product sales in the state.

We expect that the costs and delays in receiving necessary federal and state approvals for these products may increase in the coming years.

Requirements Imposed by Ingredient Legislation

Numerous federal, state and local laws regulate the sale of products containing certain identified ingredients that may impact human health and the environment. Specifically, California has enacted Proposition 65, which requires the disclosure of specified listed ingredient chemicals on the labels of products. None of the ingredients in our current products is reportable under Proposition 65.

Requirements Imposed by Other Environmental Laws

A number of federal, state and local environmental, health and safety laws govern the use, handling, storage and disposal of certain materials. Our current manufacturing process for SDC-based products is a “zero waste” process, meaning that no byproducts are created, and we do not use hazardous materials, as defined by applicable environmental laws, in the manufacturing of these products. As such, some of these U.S. environmental laws are not generally applicable to us in their current form. However, these laws may in the future identify as hazardous materials certain materials that we use in our manufacturing processes, or we may opt to or be forced to change our manufacturing procedures in a way that subjects our products or operations to these laws.

Regulation Outside the United States

The commercialization of SDC-based products in countries other than the U.S. requires that we, or companies with whom we partner for such foreign commercialization, obtain necessary approvals from the regulatory authorities in such foreign countries that are comparable to the EPA, among others. Applicable approval processes and ongoing requirements vary from country to country and may involve more time and expense than that required to obtain approvals for U.S. sales of our products.

Employees

As of April 9, 2012, we employed 25 regular full-time employees. We believe that we have been successful in attracting skilled and experienced personnel, but competition for personnel is intense and there can be no assurance that we will be able to attract and retain qualified personnel in the future. None of our employees are covered by collective bargaining agreements and we consider relations with our employees to be good.

Legal Proceedings

We filed suit against Richmont Sciences, LLC on June 29, 2011 in San Diego County Superior Court, Case No. 37-2011-00068549-CU-CO-EC asserting various causes of action to collect on outstanding invoices. Richmont Sciences, LLC and Richmont Holdings, LLC filed a cross-complaint for damages against us asserting contract, tort and statutory (trade secret) claims arising out of business dealings with us. We then filed a cross-complaint for compensatory and punitive damages against both Richmont entities asserting contract and fraud claims. The San Diego County Superior Court has since ordered that we participate in mediation with both Richmont entities to attempt to resolve the dispute, which must commence no later than August 30, 2012. If such mediation is not successful and the dispute continues to trial, the court has established November 26, 2012 as the date for the commencement of the trial. We intend to vigorously pursue our claims and defend against the cross-claims. We are unable to determine to the likelihood or the amount of any adverse judgment in this litigation.

From time to time, we may become involved in various lawsuits and legal proceedings which arise in the ordinary course of business. The impact and outcome of litigation, if any, is subject to inherent uncertainties, and an adverse result in these or other matters may arise from time to time that may harm our business. Other than our ongoing litigation with Richmont Sciences, LLC, we are not currently aware of any such legal proceedings or claims to which we or our wholly owned subsidiary is a party or of which any of our property is subject that we believe will have, individually or in the aggregate, a material adverse effect on our business, financial condition or results of operations.

Properties

We lease a facility in El Cajon, California covering a total of approximately 15,000 square feet. This is our primary facility and it includes our corporate offices, research and development laboratory, manufacturing operations and warehouse. Our current lease on this facility expires in December 2014. We also lease approximately 6,500 square feet of additional warehouse space, which is located within one mile of our primary facility. Our current lease on this facility expires in November 2012. We also lease other office and warehouse space on a month-to-month basis.

Company Information

We were incorporated in the state of California in August 1992 as Innovative Medical Services. In September 2003, we changed our name to Pure Bioscience. In March 2011, we reincorporated in the state of Delaware under the name “Pure Bioscience, Inc.”

Our corporate offices are located at 1725 Gillespie Way, El Cajon, California 92020. Our telephone number is (619) 596-8600. Our website address is www.purebio.com. We make available free of charge on our website our periodic and current reports, proxy statements and other information as soon as reasonably practicable after such reports are filed with the SEC. Information contained on, or accessible through, our website is not part of this report or our other filings with the SEC. Our SEC filings are also available to the public on the SEC’s website at www.sec.gov.

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

All references to "PURE," "we", "our," "us" and the "Company" refer to Pure Bioscience, Inc. and our wholly owned subsidia ETIH2O Corporation, a Nevada corporation. ETIH2O Corporation currently has no business operations and no material assets or liabilities and there have been no significant transactions related to ETIH2O Corporation during the periods presented in the consolidated financial statements incorporated by reference in this prospectus.

The discussion in this section contains forward-looking statements. These statements relate to future events or our future financial performance. We have attempted to identify forward-looking statements by terminology such as "anticipate," "believe," "can," "continue," "could," "estimate," "expect," "intend," "may," "plan," "potential," "predict," "shou or the negative of these terms or other comparable terminology, but their absence does not mean that a statement is not forward-looking. These statements are only predictions and involve known and unknown risks, uncertainties and other factors, which could cause our actual results to differ from those projected in any forward-looking statements we make. Several risks and uncertainties we face are discussed in more detail under the heading "Risk Factors" elsewhere in this prospectus or in the discussion and analysis below. You should, however, understand that it is not possible to predict or identify all risks and uncertainties and you should not consider the risks and uncertainties identified by us to be a complete set of all potential risks or uncertainties that could materially affect us. You should not place undue reliance on the forward-looking statements we make herein because some or all of them may turn out to be wrong. We undertake no obligation to update any of the forward-looking statements contained herein to reflect future events and developments, except as required by law. The following discussion should be read in conjunction with the consolidated financial statements and the notes to those statements incorporated by reference in this prospectus.

Overview

Company Overview

We are focused on the discovery, development and commercialization of bioscience products that provide solutions to global health challenges. Our technology platform is based on stabilized ionic silver, and our initial products contain silver dihydrogen citrate, or SDC. SDC is a broad-spectrum, non-toxic antimicrobial. We manufacture and sell SDC-based disinfecting and sanitizing products, which are registered by the Environmental Protection Agency, or EPA, to distributors and end users. We also manufacture and sell various SDC-based formulations to manufacturers for use as a raw material in the production of personal care and other products. We believe our technology platform has potential application in a number of industries, and we have ongoing research and development projects in food processing, agriculture, water treatment, pharmaceuticals, and oil and gas.

Our goal is to become a sustainable company by using our proprietary technology platform to deliver leading antimicrobial products to multiple industries. We manufacture and sell SDC-based products for end use, and as a raw material for manufacturing use. Our current products are as follows:

Product Name	Product Use	EPA Registration
PURE® Hard Surface	Disinfectant and sanitizer	SDC3A
Axen™ 30	Disinfectant	Axen30
Silvérion®	Raw material	Not applicable
Axenohl™	Raw material	Axenohl

PURE® Hard Surface

PURE® Hard Surface is our patented and EPA-registered hard surface disinfectant and food contact surface sanitizer. We manufacture both consumer and commercial versions of the product. PURE Hard Surface combines high efficacy and low toxicity with 30-second bacterial and viral kill times and 24-hour residual protection. The product completely

kills resistant pathogens such as MRSA and Carbapenem-resistant Klebsiella pneumoniae (NDM-1), and effectively eliminates dangerous fungi and viruses including HIV, Hepatitis B, Hepatitis C, Norovirus, Influenza A, Avian Influenza and H1N1. It also eradicates hazardous food pathogens such as E. coli, Salmonella, Campylobacter and Listeria. PURE Hard Surface delivers broad-spectrum efficacy yet remains classified as least-toxic by the EPA. The active ingredient, SDC, has been designated as Generally Recognized as Safe, or GRAS, for use on food processing equipment, machinery and utensils.

Axen™ 30

Axen™30 is our patented and EPA-registered hard surface disinfectant and is a predecessor product to PURE Hard Surface. Axen30 is sold by distributors under the private label brands SpectraSan24, PureGreen24, Critical Care, Mother Nature’s Choice, Ag+ainst24 and IV-7. In prior years, we sold this product to other distributors that resold Axen30 under a variety of other private label brands.

Silvérion®
Silvérion® is our patented antimicrobial formulation for use as a raw material in the manufacturing of personal care products. It can be used as either an active ingredient or a preservative. Silvérion is a colorless, odorless and stable solution that provides ionic silver in a water-soluble form. It provides fast acting efficacy at low concentrations against a broad-spectrum of bacteria, viruses, yeast and molds.

Axenohl™
Axenohl™ is our patented and EPA-registered antimicrobial formulation for use as a raw material in the manufacturing of EPA-registered products. Axenohl is a colorless, odorless and stable solution that provides fast acting efficacy against bacteria, viruses and fungi when manufactured into consumer and commercial disinfecting and sanitizing products.

We are a Delaware corporation and operate in one business segment.

Recent Developments

NASDAQ Delisting Notification
On September 16, 2011 and March 15, 2012, we received deficiency letters from the NASDAQ Stock Market, or NASDAQ, notifying us that our common stock is at risk of delisting from the NASDAQ Capital Market due to noncompliance with NASDAQ Listing Rule 5550(a)(2), which requires that the minimum bid price of the Company's common stock equal or exceed $1.00 during the periods required by applicable NASDAQ rules. On March 22, 2012, we appealed NASDAQ's delisting determination in accordance with NASDAQ's applicable procedures by submitting a request for an oral hearing by a NASDAQ Hearings Panel, or the Panel, which hearing has been scheduled to take place on April 26, 2012. On March 23, 2012, we received from NASDAQ an additional determination letter notifying us that, based on our stockholders' equity as reported in our Quarterly Report on Form 10-Q for the period ended January 31, 2012, we do not satisfy the minimum stockholders' equity for continued listing on the NASDAQ Capital Market under NASDAQ Listing Rule 5550(b)(1). As described in the additional determination letter, our failure to meet the minimum stockholders' equity serves as an additional basis for delisting our common stock from the NASDAQ Capital Market and the Panel will consider the matter in rendering its decision on our appeal and its determination regarding the continued listing of our common stock on the NASDAQ Capital Market.

Our common stock will remain listed on the NASDAQ Capital Market pending the Panel's decision on our appeal. We expect to continue to pursue our appeal to attempt to maintain our NASDAQ listing, but our efforts may not be successful and our common stock may be delisted from the NASDAQ Capital Market.

Richmont Corporation Proxy Fight
We have received a notice from Richmont Corporation, or Richmont, announcing its intended nomination of six individuals for election to our Board of Directors at our 2012 annual meeting. In the notice, Richmont confirmed its ownership of shares of our common stock, which represents less than one half of one percent of our outstanding common stock. Since our receipt of such notice: on December 23, 2011, Richmont filed a preliminary proxy statement with the Securities and Exchange Commission, or the SEC, describing its intended nomination of such individuals and, among other things, confirming its intent to terminate our ongoing litigation with Richmont Sciences, LLC and enter into a new, unspecified relationship with such entity in the event Richmont's proxy contest is successful; on February 17, 2012, we announced the date of our 2012 annual meeting of stockholders as July 25, 2012; and on February 27, 2012, Richmont filed a revised preliminary proxy statement in response to such announcement. If a proxy contest results from these actions by Richmont, our business could be adversely affected. Responding to proxy contests and other actions by insurgent stockholders can be costly and time-consuming, disrupting operations and diverting the attention of management and employees. Perceived uncertainties as to our future direction may impact our existing and potential collaborations or strategic relationships and may make it more difficult to attract and retain qualified personnel. If individuals are elected to our Board of Directors with a specific agenda, it may adversely affect

our ability to effectively and timely implement our strategic plan.

Financial Overview

This financial overview provides a general description of our revenue and expenses.

Revenue

We manufacture and sell SDC-based products for end use, and as a raw material for manufacturing use. We also license our products and technology to development and commercialization partners. Revenue is recognized when realized or realizable and earned. Any amounts received prior to satisfying revenue recognition criteria are recorded as deferred revenue.

Cost of Goods Sold

Cost of goods sold for product sales includes direct and indirect costs to manufacture products, including materials consumed, manufacturing overhead, shipping costs, salaries, benefits and related expenses of operations. Depreciation related to manufacturing is systematically allocated to inventory produced, and expensed through cost of goods sold at the time inventory is sold.

Selling, General and Administrative
Selling, general and administrative expense consists primarily of salaries and other related costs for personnel in business development, sales, finance, accounting, information technology, and executive functions. Other selling, general and administrative costs include product marketing, advertising, and trade show costs, as well as public relations and investor relations, facility costs, and legal, accounting and other professional fees.

Research and Development
Our research and development activities are focused on leveraging our technology platform to develop additional proprietary products and applications. Research and development expense consists primarily of personnel and related costs, product registration expenses, and third-party testing. We expense research and developments costs as incurred.

Other Income (Expense)
Other income (expense) consists of interest income and interest expense, as well as other non-operating transactions.

Results of Operations

Fluctuations in Operating Results
Our results of operations have fluctuated significantly from period to period in the past and are likely to continue to do so in the future. We anticipate that our quarterly and annual results of operations will be affected for the foreseeable future by several factors that may contribute to these periodic fluctuations, including the demand for our products, the timing and amount of our product sales, and the progress and timing of expenditures related to sales and marketing, as well as product development. Due to these fluctuations, we believe that the period-to-period comparisons of our operating results are not a reliable indication of our future performance.

Comparison of the Three Months Ended January 31, 2012 and 2011

Net Product Sales
Net product sales were $221,000 and $58,000 for the three months ended January 31, 2012 and 2011, respectively. The increase of $163,000 was primarily attributable to sales to a new customer. The new customer accounted for $172,000 of net product sales for the three months ended January 31, 2012.

For the three months ended January 31, 2012, one individual customer accounted for 10% or more of our net product sales. No other individual customer accounted for 10% or more of our net product sales. The geographic breakdown of net product sales was as follows: 100% U.S. and 0% foreign.

For the three months ended January 31, 2011, two individual customers each accounted for 10% or more of our net product sales. One customer accounted for 65% and the other for 20%. No other individual customer accounted for 10% or more of our net product sales. The geographic breakdown of net product sales was as follows: 100% U.S. and 0% foreign.

Cost of Goods Sold
Cost of goods sold was $40,000 and $15,000 for the three months ended January 31, 2012 and 2011, respectively. The increase of $25,000 was attributable to increased net product sales.

Gross margin as a percentage of net product sales, or gross margin percentage, was 82% and 74% for the three months ended January 31, 2012 and 2011, respectively. The increase in gross margin percentage was primarily attributable to the sale of higher margin formulations and packaging configurations of our products during the quarter ended January 31, 2012 as compared to prior year.

Selling, General and Administrative Expense

Selling, general and administrative expense was $1,885,000 and $1,876,000 for the three months ended January 31, 2012 and 2011, respectively. The increase of $9,000 was primarily attributable to an increase in legal fees of $213,000, which were incurred in significant part as a result of our ongoing litigation with Richmont Sciences, LLC as well as the proxy contest that Richmont Corporation has initiated, which was almost entirely offset by decreases in personnel costs and related expenses, depreciation expense, and other professional services costs.

Research and Development Expense
Research and development expense was $489,000 and $673,000 for the three months ended January 31, 2012 and 2011, respectively. The decrease of $184,000 was primarily attributable to decreases in personnel costs and related expenses and third-party research and testing activities.

Comparison of the Six Months Ended January 31, 2012 and 2011

Net Product Sales
Net product sales were $478,000 and $81,000 for the six months ended January 31, 2012 and 2011, respectively. The increase of $397,000 was primarily attributable to sales to a new customer, as well as increased sales to a few existing customers. The new customer accounted for $326,000 of net product sales for the six months ended January 31, 2012.

For the six months ended January 31, 2012, one individual customer accounted for 10% or more of our net product sales. No other individual customer accounted for 10% or more of our net product sales. The geographic breakdown of net product sales was as follows: 97% U.S. and 3% foreign.

For the six months ended January 31, 2011, three individual customers each accounted for 10% or more of our net product sales. One customer accounted for 50%, another for 30%, and the third for 10%. No other individual customer accounted for 10% or more of our net product sales. The geographic breakdown of net product sales was as follows: 100% U.S. and 0% foreign.

Cost of Goods Sold
Cost of goods sold was $169,000 and $25,000 for the six months ended January 31, 2012 and 2011, respectively. The increase of $144,000 was attributable to increased net product sales, as well as an inventory charge. The inventory charge represents costs incurred by us to rework certain finished goods inventory, as well as a write-off of certain packaging inventory.

Gross margin as a percentage of net product sales, or gross margin percentage, was 65% and 69% for the six months ended January 31, 2012 and 2011, respectively. The decrease in gross margin percentage was attributable to the inventory charge noted above. Gross margin percentage, excluding the inventory charge, was 75% and 69% for the six months ended January 31, 2012 and 2011, respectively. This increase in gross margin percentage was primarily attributable to the sale of higher margin formulations and packaging configurations of our products during the six months ended January 31, 2012 as compared to the prior year.

Selling, General and Administrative Expense
Selling, general and administrative expense was $3,882,000 and $3,410,000 for the six months ended January 31, 2012 and 2011, respectively. The increase of $472,000 was primarily attributable to an increase in legal fees of $342,000, which were incurred in significant part as a result of our ongoing litigation with Richmont Sciences, LLC as well as the proxy contest that Richmont Corporation has initiated, as well as increases in sales and marketing activities, and personnel and related costs.

Research and Development Expense
Research and development expense was $982,000 and $1,175,000 for the six months ended January 31, 2012 and 2011, respectively. The decrease of $193,000 was primarily attributable to decreases in personnel and related costs, third-party research and testing activities, laboratory supplies and patent costs.

Comparison of the Years Ended July 31, 2011 and 2010

Net Product Sales

Net product sales were $454,200 and $1,416,100 for the years ended July 31, 2011 and 2010, respectively. The decrease of $961,900 was primarily attributable to lower sales to five customers. Specifically, these five customers accounted for $956,000 of net product sales for the year ended July 31, 2010, but only $42,900 for the year ended July 31, 2011.

For the year ended July 31, 2011, one customer accounted for 46% of our net product sales. No other individual customer accounted for 10% or more of our net product sales. The geographic breakdown of net product sales is as follows: 90% U.S. and 10% foreign.

For the year ended July 31, 2010, one customer accounted for 28% of our net product sales. No other individual customer accounted for 10% or more of our net product sales. The geographic breakdown of net product sales is as follows: 83% U.S. and 17% foreign.

Cost of Goods Sold

Cost of goods sold was $131,400 and $465,100 for the years ended July 31, 2011 and 2010, respectively. The decrease of $333,700 was attributable to decreased net product sales. Gross margin as a percent of net product sales, or gross margin percentage, was 71% and 67% for the years ended July 31, 2011 and 2010, respectively. The increase in gross margin percentage was primarily attributable to the sale of higher margin formulations and packaging configurations of our products during the year ended July 31, 2011 as compared to prior year.

Selling, General and Administrative Expense

Selling, general and administrative expense was $6,520,200 and $5,862,000 for the years ended July 31, 2011 and 2010, respectively. The increase of $658,200 was primarily attributable to increases in marketing and trade show activity, personnel and related costs, and consulting services, as well as professional fees and costs associated with our reincorporation in the State of Delaware.

Research and Development Expense

Research and development expense was $2,179,500 and $1,927,200 for the years ended July 31, 2011 and 2010, respectively. The increase of $252,300 in the year ended July 31, 2011 was primarily attributable to increases in product registration expenses and personnel and related costs, partially offset by decreases in consulting services and laboratory costs and supplies.

Impairment of Capitalized Assets

There were no impairments of capitalized assets for the year ended July 31, 2011. For the year ended July 31, 2010, we wrote off $92,700 of equipment related to a manufacturing development project that was deemed unfeasible. This amount was recorded as an impairment of capitalized assets on our consolidated statements of operations.

Other Income, net

Other income, net was $10,000 and $117,300 for the years ended July 31, 2011 and 2010, respectively. The decrease of $107,300 was primarily attributable to a legal settlement of $110,000 that we received in the year ended July 31, 2010.

Liquidity and Capital Resources

Financing Activity

Since our inception, we have financed our operations primarily through public and private offerings of securities, revenue from product sales and license agreements, proceeds from the sale of a division and interest income from invested cash balances. We have a history of recurring losses, and we have incurred a cumulative net loss of $58,164,000.

On December 14, 2011 and December 15, 2011, we entered into certain purchase agreements and a registration rights agreement with Lincoln Park for sales of our common stock totaling up to $10,000,000, the provisions of which are described in more detail under the heading “The Lincoln Park Transaction” elsewhere in this prospectus. Other than Lincoln Park’s initial purchase in December 2011 of 1,347,709 shares of our common stock at a price per share of $0.371 for an aggregate amount of $500,000, sales of our common stock under such agreements are not guaranteed. Although sales of our common stock to Lincoln Park are at our sole discretion, such sales are subject to our satisfaction of certain conditions and the market price of our common stock remaining at or above $0.25 per share for sales under the $2.5M Purchase Agreement and $0.20 per share for sales under the $7.5M Purchase Agreement. We believe we will, if desirable, be able to raise sufficient capital under our agreements with Lincoln Park to provide us with adequate liquidity to fund our business plans. Sales of our common stock, if any, to Lincoln Park will depend upon market conditions and other factors to be determined by us. During the six months ended January 31, 2012, we sold 2,347,709 shares of our common stock to Lincoln Park for net proceeds of $729,000. As of January 31, 2012, we had $1,666,580 remaining on our shelf registration statement, which expires in May 2012.

In April 2011, we entered into a sales agreement with an investment banking firm. Under the terms of the sales agreement, we were permitted to offer and sell shares of our common stock having an aggregate offering price of up to $7,000,000. The sales were made, from time to time, through the investment bank in an “at the market” offering program, or ATM Program, as defined by the SEC and were made pursuant to our effective shelf registration statement previously filed with the SEC. During the six months ended January 31, 2012, we sold 1,337,091 shares of our common stock pursuant to the ATM Program, for net proceeds of $948,000. During the year ended July 31, 2011, we sold 2,636,573 shares of our common stock pursuant to the ATM Program, for net proceeds of $3,065,200. Effective as of December 14, 2011, we terminated the sales agreement in order to make available under our shelf registration statement sufficient funds for the consummation of the transactions contemplated by our agreements with Lincoln Park. As a result of such termination, there have been no sales of our common stock under the sales agreement since the date of its termination and there will be no future sales of our common stock under the sales agreement.

During the year ended July 31, 2010, we completed a registered direct offering of 1,818,182 shares of our common stock at a price of $1.65 per share and warrants to purchase an aggregate of 727,272 shares of our common stock at an exercise price of $2.10 per share. The net proceeds from this offering were $2,783,200.

During the six months ended January 31, 2011, we received $2,367,000 from the sale of common stock. We also received $454,000 from the issuance of common stock upon the exercise of stock options and warrants.

During the years ended July 31, 2011 and 2010, we received $277,600 and $284,400, respectively, from the issuance of common stock upon the exercise of stock options and $259,100 and 764,600 from the issuance of common stock upon the exercise of warrants.

Cash Flows

As of January 31, 2012, we had $626,000 in cash and cash equivalents, and $16,000 in accounts receivable, compared to $1,794,000 in cash and cash equivalents, and $50,000 in accounts receivable as of July 31, 2011. The net decrease in cash and cash equivalents was primarily attributable to the use of cash to fund our operations, partially offset by proceeds from the issuance of common stock through securities offerings. The decrease in accounts receivable was attributable to the timing of customer payments during the six months ended January 31, 2012.

As of July 31, 2011, we had $1,793,600 in cash and cash equivalents, and $50,200 in accounts receivable, compared to $2,192,500 in cash and cash equivalents, and $332,500 in accounts receivable as of July 31, 2010. The net decrease in cash and cash equivalents was primarily attributable to the use of cash to fund our operations, partially offset by proceeds from the issuance of common stock through securities offerings, the exercise of stock options and the exercise of warrants. The decrease in accounts receivable was attributable to lower sales for the year ended July 31, 2011 as compared to prior year.

The following table summarizes our contractual obligations as of July 31, 2011.

		Payments due by period			
	Total	Less than 1 year	1-3 years	3-5 years	More than 5 years
Operating lease obligations	$ 93,200	$ 93,200	-	-	-
Total	$ 93,200	$ 93,200	-	-	-

In addition, from time to time we have entered into employment agreements with our executives that, in certain cases, provide for the continuation of salary and certain other benefits if these executives are terminated under specified circumstances. These agreements generally expire upon termination for cause or when we have met our obligations under these agreements. As of July 31, 2011, no events had occurred resulting in the obligation of any such payments.

Future Capital Requirements

Our future capital requirements depend on numerous forward-looking factors. These factors may include, but are not limited to, the following: the acceptance of, and demand for, our products; our success and the success of our partners in selling our products; our success and the success of our partners in obtaining regulatory approvals to sell our products; the costs of further developing our existing products and technologies; the extent to which we invest in new product and technology development; the costs of our ongoing litigation with Richmont Sciences, LLC and the proxy contest that Richmont Corporation has elected to pursue; and the costs associated with the continued operation, and any future growth, of our business. The outcome of these and other forward-looking factors will substantially affect our liquidity and capital resources.

We will need to increase our liquidity and capital resources by one or more measures in the near term. These measures may include, but are not limited to, the following: reducing operating expenses; obtaining financing through the issuance of equity, debt, or convertible securities; entering into partnerships, licenses, or other arrangements with third parties; and reducing the exercise price of outstanding warrants. If we issue equity, debt or convertible securities to raise additional funds, our existing stockholders may experience dilution, and the new equity, debt or convertible securities may have rights, preferences and privileges senior to those of our existing stockholders. There is no guarantee that we will be able to obtain capital on terms acceptable to us, or at all.

If we are unable to obtain sufficient capital in the near term, it will have a material adverse effect on our business and operations. It could cause us to fail to execute our business plan, fail to take advantage of future opportunities, or fail to respond to competitive pressures or customer requirements. It also may require us to delay, scale back or eliminate some or all of our research and development programs, to license to third parties the right to commercialize products or technologies that we would otherwise commercialize ourselves, or to reduce or cease operations. If adequate funds are not available when needed, we may be required to significantly modify our business model and operations to reduce spending to a sustainable level.

We believe our current efforts to raise capital, including our recent agreements with Lincoln Park, our current efforts to market and sell our products, and our ability to significantly reduce expenses, will provide sufficient cash resources to satisfy our needs over the next 12 months. However, we do not yet have, and we may never have, significant cash inflows from product sales or from other sources of revenue to offset our ongoing and planned investments in corporate infrastructure, research and development projects, regulatory submissions, business development initiatives, and sales and marketing activities, as well as other investments. Some or all of our ongoing or planned investments may not be successful. In addition, irrespective of our cash resources, we may be contractually or legally obligated to make certain investments which cannot be postponed.

Critical Accounting Policies and Estimates

The discussion and analysis of our financial condition and results of operations are based on our audited consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States, or GAAP. The preparation of these financial statements requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues, expenses, and related disclosures. We evaluate our estimates on an ongoing basis. We base our estimates on historical experience and on other assumptions that we believe to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions.

We believe the following accounting policies and estimates are critical to aid you in understanding and evaluating our reported financial results.

Revenue Recognition
We sell our products to distributors and end users. We record revenue when we sell products to our customers, rather than when our customers resell products to third parties. When we sell products to our customers, we reduce the balance of our inventory with a corresponding charge to cost of goods sold. We do not currently have any consignment sales.

Product sales are recognized when delivery of the products has occurred, title has passed to the customer, the selling price is fixed or determinable, collectability is reasonably assured and we have no further obligations. Any amounts received prior to satisfying these revenue recognition criteria are recorded as deferred revenue. We record product sales net of discounts at the time of sale and report product sales net of such discounts.

We also license our products and technology to development and commercialization partners. License fee revenue consists of product and technology license fees earned. Upfront product and technology license fees under multiple-element arrangements are deferred and recognized over the period of such services or performance, if such arrangements require on-going services or performance. Non-refundable amounts received for substantive milestones are recognized upon achievement of the milestone. Any amounts received prior to satisfying these revenue recognition criteria are recorded as deferred revenue.

Share-Based Compensation
We grant equity-based awards under share-based compensation plans. We estimate the fair value of share-based payment awards using the Black-Scholes option valuation model. This fair value is then amortized over the requisite service periods of the awards. The Black-Scholes option valuation model requires the input of subjective assumptions, including price volatility of the underlying stock, risk-free interest rate, dividend yield, and expected life of the option. Share-based compensation expense is based on awards ultimately expected to vest, and therefore is reduced by expected forfeitures. Changes in assumptions used under the Black-Scholes option valuation model could materially affect our net loss and net loss per share.

Impairment of Long-Lived Assets

In accordance with GAAP, if indicators of impairment exist, we assess the recoverability of the affected long-lived assets by determining whether the carrying value of such assets can be recovered through undiscounted future operating cash flows. If impairment is indicated, we measure the amount of such impairment by comparing the carrying value of the asset to the fair value of the asset and we record the impairment as a reduction in the carrying value of the related asset and a charge to operating results. Estimating the undiscounted future cash flows associated with long-lived assets requires judgment, and assumptions could differ materially from actual results.

For purposes of testing impairment, we group our long-lived assets at the lowest level for which there are identifiable cash flows independent of other asset groups. Currently, there is only one level of aggregation for our intangible assets. We assess the impairment of long-lived assets, consisting of property, plant, and equipment and our patent portfolio, whenever events or circumstances indicate that the carrying value may not be recoverable. Examples of such events or circumstances include:

- an asset group's ability to continue to generate income from operations and positive cash flow in future periods;
- loss of legal ownership or title to an asset;
- significant changes in our strategic business objectives and utilization of the asset(s); and
- the impact of significant negative industry or economic trends.

Additionally, on a quarterly basis we review the significant assumptions underlying our impairment assessment to determine that our previous conclusions remain valid.

Recoverability of assets to be held and used in operations is measured by a comparison of the carrying amount of an asset to the future net cash flows expected to be generated by the assets. The factors used to evaluate the future net cash flows, while reasonable, require a high degree of judgment and the results could vary if the actual results are materially different than the forecasts. In addition, we base useful lives and amortization or depreciation expense on our subjective estimate of the period that the assets will generate revenue or otherwise be used by us. If such assets are considered to be impaired, the impairment to be recognized is measured by the amount by which the carrying amount of the assets exceeds the fair value of the assets. Assets to be disposed of are reported at the lower of the carrying amount or fair value less selling costs.

We also periodically review the lives assigned to our intangible assets to ensure that our initial estimates do not exceed any revised estimated periods from which we expect to realize cash flows from the technologies. If a change were to occur in any of the above-mentioned factors or estimates, the likelihood of a material change in our reported results would increase.

Recent Accounting Pronouncements

See Note 2 to our audited consolidated financial statements included in our Annual Report on Form 10-K for the fiscal year ended July 31, 2011, and Note 9 to our unaudited consolidated financial statements included in our Quarterly Reports on Form 10-Q for the quarterly periods ended October 31, 2011 and January 31, 2012, respectively, all incorporated by reference in this prospectus.

Off Balance Sheet Arrangements

We do not have any off balance sheet arrangements.

MANAGEMENT

Information Regarding our Board of Directors

The table and descriptions below set forth the position with us, the principal occupation or employment and principal business of the employer, if any, of each of our current directors, as well as his or her age, business experience, qualifications and other directorships held by him or her and the period during which he or she has served as director on our Board. The term of each director listed below is set to expire at the 2012 annual meeting of our stockholders.

Our Board of Directors has unanimously determined that a majority of the Board, or four of our six directors, are "independent" directors as defined by NASDAQ Marketplace Rule 5605(a)(2). Messrs. Barnhill, Brovarone, Carbone and Maier have each been determined to be independent. Based upon such NASDAQ rules, the Board has determined that Mr. Krall and Ms. Singer are not independent because they currently are our executive officers.

In addition to the information presented below regarding each director's specific experience, qualifications and attributes that led our Board to the conclusion that he or she should serve as a director, we also believe that all of our directors have a reputation for integrity, honesty and adherence to high ethical standards. They each have demonstrated business acumen and an ability to exercise sound judgment, as well as a commitment of service to the Company, our business and our Board.

Name	Age	Position(s) with Us	Year First Elected
Gregory H. Barnhill (1)(2)	59	Director	2001
Dennis Brovarone (2)	56	Director	1996
John J. Carbone, MD (1)	50	Director	2010
Michael L. Krall	60	President, Chief Executive Officer, Chairman, Director	1992
Paul V. Maier (3)	64	Director	2008
Donna Singer	42	Executive Vice President, Director	1998

(1) Member of the audit committee of the Board.
(2) Member of the compensation committee of the Board.
(3) Chairman of the audit committee and compensation committee of the Board.

Business Experience of our Directors

Gregory H. Barnhill. Mr. Barnhill is a Partner in Brown Advisory Securities, LLC, a member firm of the Financial Industry Regulatory Authority, Inc. (FINRA). Previously, Mr. Barnhill served as Managing Director of North American Equity Sales at Deutsche Banc Alex Brown Inc., an investment services firm. He joined the firm in 1975, following his graduation from Brown University with a degree in economics. Mr. Barnhill is on the board of Osiris Therapeutics, Inc. (NASDAQ: OSIR), a biotechnology company, and serves as a board member for a number of charitable and philanthropic organizations. Mr. Barnhill has extensive knowledge of capital and securities markets, experience with other publicly held corporations and a significant historical understanding of our business, operations, and strategic objectives.

Dennis Brovarone. Mr. Brovarone has been practicing corporate and securities law since 1986 and as a sole practitioner since 1990, specializing in U.S. public companies. He was elected to the Board in April 1996, and acted as our counsel at the time of our initial public offering in that year. Mr. Brovarone has served as our securities counsel

since that time. Mr. Brovarone has extensive knowledge of U.S. securities law and capital markets, experience in strategic transactions and mergers and acquisitions, technical skills across various industries, and significant understanding of our business and operations which he has acquired through his more than fourteen years of service on our Board.

John J. Carbone, MD. Dr. Carbone is a Board Certified Orthopedic Surgeon and a Fellow of the American Academy of Orthopedic Surgeons. Since 2004, he has served as the Director, Orthopedic Spine Services at Harbor Hospital in Baltimore, Maryland. Dr. Carbone earned a bachelor's degree in engineering from The United States Merchant Marine Academy in 1983. He served as a marine engineer for Military Sealift Command until 1988, and as a lieutenant in the United States Naval Reserve until 1993. He received his medical degree from the University of Maryland School of Medicine in 1992, and completed his orthopedic residency training and his reconstructive spinal surgery fellowship at The Johns Hopkins Hospital. Dr. Carbone has been a senior officer of two privately held orthopedic research and design companies, and is the inventor of several patented orthopedic devices and methods. Dr. Carbone has significant knowledge of the medical device market and FDA regulatory processes and of business operations, which provides the Board with important insights into our business strategies and opportunities. In addition, Dr. Carbone has extensive contacts in the medical field and with medical device and pharmaceutical corporations.

Michael L. Krall. Mr. Krall is our founder. Additionally, he has held the positions of President, CEO and Chairman of the Board since 1993, and is an inventor or co-inventor on the majority of our SDC patent portfolio. Mr. Krall has unparalleled knowledge of our technology, our operations and our relationships with our partners, which he has acquired through his more than seventeen years of service to, and leadership of, the Company. The Board also believes that Mr. Krall's leadership ability and commitment to excellence make him well suited to serve as Chairman of our Board.

Paul V. Maier. Since November 2009, Mr. Maier has served as Chief Financial Officer of Sequenom, Inc., a life sciences company based in San Diego, California. Previously, he served as Vice President, Chief Financial Officer and became Senior Vice President, Chief Financial Officer of Ligand Pharmaceutical Inc., a biotechnology company, from 1992 to 2007. Prior to Ligand Pharmaceutical, Mr. Maier served as Vice President, Finance at DFS West, a division of DFS Group, L.P., a private multinational retailer from October 1990 to October 1992. From February 1990 to October 1990, Mr. Maier served as Vice President and Treasurer of ICN Pharmaceuticals, Inc., a pharmaceutical and biotechnology research products company. Mr. Maier held various positions in finance and administration at SPI Pharmaceuticals, Inc., a biotechnology company and a publicly held subsidiary of ICN Pharmaceuticals Group, from 1984 to 1988, including Vice President, Finance from February 1984 to February 1987. Mr. Maier earned an M.B.A. from Harvard Graduate School of Business and a B.S. from Pennsylvania State University. Mr. Maier also serves on the boards of directors of International Stem Cell Corp. and Talon Therapeutics, Inc., both publicly-held biotechnology companies. Mr. Maier has a deep knowledge and understanding of financial operations and regulatory environments, through his service in senior management positions of U.S. public companies in the life sciences industry. Additionally, his service on other public company boards combined with his business acumen and judgment provide our Board with valuable accounting, financial and operational expertise and leadership.

Donna M. Singer. Ms. Singer is the Executive Vice President of the Company and has been a director since 1998. From 1996 to 1998, Ms. Singer served as our Vice President of Operations. Ms. Singer has extensive knowledge of our technology, our operations and markets for our SDC technology, having been one of our senior executives for fourteen years. As a result of her experience and expertise, Ms. Singer provides the Board with important insight into our operations, business strategies, our current and proposed strategic partners and the markets in which we compete.

Information Regarding our Executive Officers

The table and descriptions below set forth the position with us of each of our current executive officers, as well as his or her age, business experience, qualifications and the period during which he or she has served as one of our executive officers, except that, if any executive officer is also serving as a director on our Board, then certain of such executive officer's information is set forth under the heading "Information Regarding our Board of Directors".

Name	Age	Position(s) with Us	Position Held Since
Craig A. Johnson	50	Chief Financial Officer	2011
Michael L. Krall	60	President, Chief Executive Officer, Chairman, Director	1992
Donna Singer	42	Executive Vice President, Director	1998

Business Experience of our Executive Officers

Craig A. Johnson. Mr. Johnson has served as our Chief Financial Officer since August 2011. In 2010 and 2011, he served as Senior Vice President and Chief Financial Officer of NoveDel Pharma Inc. Mr. Johnson served as Vice President and Chief Financial Officer of TorreyPines Therapeutics, Inc. from 2004 to 2010. He was employed by MitoKor, Inc. from 1994 to 2004, and last held the position of Chief Financial Officer and Senior Vice President of Operations. Prior to MitoKor, Mr. Johnson served as a senior financial executive for several early-stage technology

companies, and he also practiced as a Certified Public Accountant with Price Waterhouse. Currently, Mr. Johnson is a member of the board of directors of Ardea Biosciences, Inc. and Adamis Pharmaceuticals Corporation, which are both publicly-traded biotechnology companies. He also serves as chairman of the audit committees for each company. Mr. Johnson received his BBA in accounting from the University of Michigan and is a certified public accountant.

Family Relationships

There is no family relationship between any director or any executive officer.

EXECUTIVE COMPENSATION

Summary Compensation Table

The following table sets forth a summary of cash and non-cash compensation awarded, earned or paid for services rendered to us during the years ended July 31, 2011 and July 31, 2010 by our named executive officers, or the Named Executive Officers. Our Named Executive Officers consist of (i) each individual serving as principal executive officer during the year ended July 31, 2011, and (ii) our two most highly compensated executive officers, other than the principal executive officer, who were serving as executive officers during the year ended July 31, 2011.

Name and Principal Position	Fiscal Year	Salary ($)(1)	Bonus ($)(2)	Option Awards ($)(3)	All Other Compensation ($)(4)	Total Compensation ($)
Michael L. Krall	2011	$368,115	$97,500	-	$13,956 (5)	$479,571
President and Chief Executive Officer	2010	$300,000	-	$589,889	$13,536 (5)	$903,425
Andrew J. Buckland (6)	2011	$166,346	$51,187	-	$36,538 (7)	$254,071
Chief Financial Officer	2010	$225,000	-	$235,955	$623	$461,578
Donna Singer	2011	$214,615	$45,500	-	$4,320	$264,435
Executive Vice President	2010	$200,000	-	$235,955	$7,736 (8)	$443,691

(1) Represents actual salary paid during the respective fiscal years.

(2) Amounts reflect bonuses actually paid in the respective fiscal years.

(3) During the year ended July 31, 2011 there were no stock option awards granted to our Named Executive Officers. Amounts for the year ended July 31, 2010 reflect the grant date fair value for financial statement reporting purposes with respect to stock options granted during the year ended July 31, 2010, calculated in accordance with applicable rules and regulations and authoritative guidance. All the assumptions for the stock options granted during the year ended July 31, 2010 are included in Note 6 to the audited consolidated financial statements for the fiscal years ended July 31, 2011 and 2010 incorporated by reference in this prospectus.

(4) Amounts include the cost of benefits paid by us on behalf of each Named Executive Officer for health, dental, vision and life insurance.

(5) Amount includes a $6,000 vehicle allowance for each fiscal year.

(6) Mr. Buckland resigned as our Chief Financial Officer in March 2011.

(7) Amount includes $36,098 representing accrued vacation paid to Mr. Buckland upon his resignation in March 2011.

(8) Amount includes $3,846 representing compensation received in lieu of accrued vacation.

Outstanding Equity Awards at Fiscal Year-End

The following table provides a summary of equity awards outstanding at July 31, 2011, for each of our Named Executive Officers. There were no outstanding unvested shares of restricted stock held by our Named Executive Officers as of July 31, 2011.

	Option Awards
Name	

	Number of Securities Underlying Unexercised Options (#) Exercisable (1)	Number of Securities Underlying Unexercised Options (#) Unexercisable		Option Exercise Price ($)	Option Expiration Date
Michael L. Krall	50,000	-		$ 3.00	05/23/12
	50,000	-		$ 5.70	04/09/13
	100,000	100,000		$ 2.34	05/14/14
	50,000	150,000	(2)	$ 3.09	05/06/20
Donna Singer	50,000	-		$ 3.00	05/23/12
	50,000	-		$ 5.70	04/09/13
	40,000	40,000		$ 2.34	05/14/14
	20,000	60,000	(2)	$ 3.09	05/06/20
Andrew Buckland	—	—		—	—

(1) All stock options for our Named Executive Officers issued prior to the year ended July 31, 2009 were fully vested as of July 31, 2011. All stock options for our Named Executive Officers issued during the years ended July 31, 2011 and 2010 vest annually over four years.

(2) During the year ended July 31, 2011 there were no stock option awards granted to our Named Executive Officers. During the year ended July 31, 2010, the compensation committee granted 200,000 options to Mr. Krall, and 80,000 options to Ms. Singer. The grant date fair value of awards granted in the year ended July 31, 2010 was $589,889 and $235,555 for Mr. Krall and Ms. Singer, respectively. The options vest over four years and have a ten-year term. The determination of the grant date fair value of the awards is further detailed in the notes to the audited consolidated financial statements for the fiscal years ended July 31, 2011 and 2010 incorporated by reference in this prospectus.

Employment Agreements; Potential Payments Upon Termination or a Change in Control

On October 12, 2009, we entered into an amended and restated employment agreement with Mr. Krall, which agreement amended and restated in its entirety our former employment agreement with Mr. Krall entered into in April 1996. In addition, on October 12, 2009, we entered into employment agreements with Donna Singer, our Executive Vice President, and Andrew Buckland, our former Chief Financial Officer. Each employment agreement with our Named Executive Officers was approved by the Board upon the recommendation of the compensation committee, and are filed as exhibits to our Annual Report on Form 10-K for the fiscal year ended July 31, 2009. On October 26, 2011, we entered into amendments to our amended and restated employment agreement with Mr. Krall and our employment agreement with Ms. Singer, each of which was approved by the Board upon the recommendation of the compensation committee, and are filed as exhibits to our Annual Report on Form 10-K for the fiscal year ended July 31, 2011.

In March 2011, Andrew Buckland resigned from his position as our Chief Financial Officer. His employment agreement as described below terminated on March 25, 2011, Mr. Buckland's last day with us. On June 6, 2011, we appointed Craig Johnson as its Chief Financial Officer, which position became effective on August 1, 2011 pursuant to the terms of an employment agreement with Mr. Johnson that was approved by the Board upon the recommendation of our compensation committee. Mr. Johnson's employment agreement is filed as an exhibit to our Annual Report on Form 10-K for the fiscal year ended July 31, 2011.

The terms of each employment agreement with our executive officers provide that such agreement continues until termination by us or the applicable executive officer. During the term of each employment agreement, the executive officers are entitled to an annual base salary of $300,000 for Mr. Krall, $200,000 for Ms. Singer, $225,000 for Mr. Buckland and $266,500 for Mr. Johnson, which annual base salaries may be increased, but not decreased, by the Board or the compensation committee in their discretion. Each agreement provides that, during the term of such agreement, the applicable executive officer is eligible for equity compensation grants to be awarded at the discretion of the compensation committee and the Board, and also provides for annual bonus targets equal to, as applicable, 50% of the executive's then current annual base salary for Mr. Krall and 35% of the executive's then current annual base salary for each of Ms. Singer, Mr. Buckland and Mr. Johnson, in each case to be awarded at the sole discretion of the compensation committee and the Board. Additionally, pursuant to the terms of Mr. Johnson's employment agreement, upon the commencement of his employment Mr. Johnson was granted an option to purchase 200,000 shares of our common stock at fair market value calculated on the date of such grant, and, within 12 months following the commencement of his employment or at his next performance review, whichever occurs first, and contingent upon his continued employment with us, Mr. Johnson will be granted an additional option to purchase 200,000 shares of our common stock at fair market value on the date of grant.

In each case, the employment agreements with our executive officers provide for certain compensation to be paid to the applicable executive officer if his or her employment is terminated by us without Cause or by the executive for Good Reason. In summary, "Cause" is the commission by the executive of an act of fraud or another felony, or gross misconduct resulting in a material adverse effect on us; refusal by the executive to perform his or her duties under the agreement or the executive's other breach of the agreement; or the executive's breach of other key agreements with us. "Good Reason" is a material reduction of the executive's base salary or target bonus percentage; our material reduction of the executive's authority, duties or responsibilities; a relocation of our offices that requires an increase in the executive's one-way driving distance of more than 50 miles; a material diminution in the authorities, duties or responsibilities of the supervisor to whom the executive is required to report (or, in the case of Mr. Krall, a requirement that Mr. Krall report to another person other than the Board); our material breach of the agreement; or a material diminution in the budget over which the executive retains authority.

Upon such event, the executive, upon signing a release in favor of us, would be entitled to severance pay in the form of a single lump sum cash payment. In the case of Mr. Krall, such severance payment equals 150% of his then current annual base salary, plus eighteen months of health and dental insurance in accordance with COBRA for Mr. Krall and his eligible dependents. In the case of Ms. Singer, such severance payment equals 100% of her then current annual base salary plus twelve months of health and dental insurance in accordance with COBRA for Ms. Singer and her eligible dependents. In the case of Mr. Buckland and Mr. Johnson, such severance payment equals 75% of Mr. Buckland's or Mr. Johnson's then current annual base salary, as applicable, plus nine months of health and dental insurance in accordance with COBRA for Mr. Buckland or Mr. Johnson, as applicable, and eligible dependents. In addition, in the event of a termination for any reason other than by us for Cause, each agreement provides that all outstanding vested stock options held by the applicable executive at the date of such termination would continue to be exercisable for a period of up to 120 days following such termination, but in no event beyond the maximum permitted expiration date.

The employment agreements with our executive officers also provide for compensation if the executive's employment is terminated by us without Cause within 12 months following a Change in Control, or the executive resigns for Good Reason within such period. A "Change in Control" is the closing of the sale, transfer or other disposition of all or substantially all of the our assets or the exclusive license of substantially all of our intellectual property; the consummation of a merger or consolidation of the Company with or into another entity; the closing of the acquisition of beneficial ownership of 30% or more of our outstanding voting stock; or if individuals who, on the effective date of the agreement are members of the Board, or are nominees of such Board members, cease to constitute at least a majority of the members of the Board.

Upon such event, the executive would be entitled to additional severance pay in excess of the amounts described above, in each case in an amount equal to a single lump sum payment equal to 100% of the applicable executive's then current annual base salary, plus the average annual bonus awarded to the executive for the preceding two fiscal years. In addition, in such event, the vesting of all outstanding stock options then held by the applicable executive would automatically accelerate and all stock options would continue to be exercisable for 12 months, but in no event beyond the maximum permitted expiration date.

If Mr. Krall had been terminated on July 31, 2011 without Cause or had terminated his employment for Good Reason on such date, he would have received a lump sum payment of $450,000 and the continued participation in our group health insurance benefits on the same terms as during his employment until 18 months following his termination, at a cost to us of $5,761. Additionally, if Mr. Krall was terminated without Cause or resigned for Good Reason within 12 months following a Change in Control, he would have received the same benefits plus (i) an additional lump sum payment of $300,000, (ii) a bonus payment of $150,000, and (iii) the accelerated vesting of his unvested stock options with an aggregate intrinsic value of $52,500 based on the closing price of our common stock on July 31, 2011.

If Ms. Singer had been terminated on July 31, 2011 without Cause or had terminated her employment for Good Reason on such date, she would have received a lump sum payment of $200,000 and the continued participation in our group health insurance benefits on the same terms as during her employment until 12 months following her termination, at a cost to us of $3,840. Additionally, if Ms. Singer was terminated without Cause or resigned for Good Reason within 12 months following a Change in Control, she would have received the same benefits plus (i) an additional lump sum payment of $200,000, (ii) a bonus payment of $70,000, and (iii) the accelerated vesting of her unvested stock options with an aggregate intrinsic value of $21,000 based on the closing price of our common stock on July 31, 2011.

Mr. Buckland's resignation in March 2011 did not constitute a termination by the Company without Cause, nor did it constitute a termination by Mr. Buckland for Good Reason. However, if Mr. Buckland had been terminated on July 31, 2011 without Cause or had terminated his employment for Good Reason, he would have received a lump sum payment of $168,750 and the continued participation in our group health insurance benefits on the same terms as

during his employment until nine months following his termination, at a cost to us of $405. Additionally, if Mr. Buckland was terminated without Cause or resigned for Good Reason within 12 months following a Change in Control, he would have received the same benefits plus (i) an additional lump sum payment of $225,000, (ii) a bonus payment of $78,750, and (iii) the accelerated vesting of his unvested stock options with an aggregate intrinsic value of $21,000 based on the closing price of our common stock on July 31, 2011.

Director Compensation Program

Each year, our Board has historically approved, at its discretion, an annual option or stock grant to our directors, which is generally awarded in the second calendar quarter of the year. Our compensation committee makes recommendations to the Board, which approves option and stock grants to directors. During the year ended July 31, 2011, one of our independent directors was awarded an option to purchase 20,000 shares of common stock with an exercise price of $2.13 and a ten-year term, vesting after one year, and three of our independent directors each elected to receive 13,300 shares of common stock, restricted for one year.

Director Compensation Table

The following table shows amounts earned during the year ended July 31, 2011 by each of our directors who are not also Named Executive Officers.

Name(1)	Fees Earned or Paid in Cash ($)	Stock Awards ($)(2)(3)	Option Awards ($)(3)(4)	All Other Compensation ($)		Total Compensation ($)
Gregory H. Barnhill	$38,000	$27,398	-	-		$ 65,398
Dennis Brovarone	$28,750	-	$28,904	$ 60,000	(5)	$ 117,654
John J. Carbone, MD	$31,750	$27,398	-	-		$ 59,148
Paul V. Maier	$55,250	$27,398	-	-		$ 82,648

(1) Directors Michael L. Krall, our President and Chief Executive Officer, and Donna Singer, our Executive Vice President, are not included on this table as they received no compensation for being directors during the year ended July 31, 2011. The compensation received by Mr. Krall and Ms. Singer as executives is shown in the Summary Compensation Table under the heading “Executive Compensation”.

(2) Amounts reflect the grant date fair value for financial statement reporting purposes with respect to restricted stock grants issued during the year ended July 31, 2011, calculated in accordance with applicable rules and regulations and authoritative guidance. All assumptions for these calculations are included in Note 6 to the audited consolidated financial statements for the fiscal years ended July 31, 2011 and 2010 incorporated by reference in this prospectus. During the year ended July 31, 2011, Mr. Barnhill, Dr. Carbone, and Mr. Maier elected to receive shares of our common stock, vesting one year from their grant date, in lieu of options to purchase common stock.

(3) The aggregate number of stock awards outstanding at July 31, 2011 for each independent director was as follows: Mr. Barnhill, 13,300; Mr. Brovarone, 0; Dr. Carbone, 13,300; and Mr. Maier, 13,300. The aggregate number of option awards outstanding at July 31, 2011 for each independent director was as follows: Mr. Barnhill, 0; Mr. Brovarone, 180,000; Dr. Carbone, 50,000; and Mr. Maier, 150,000.

(4) Amount reflects the grant date fair value for financial statement reporting purposes with respect to stock options granted during the year ended July 31, 2011, calculated in accordance with applicable rules and regulations and authoritative guidance. All assumptions for these calculations are included in Note 6 to the audited consolidated financial statements for the fiscal years ended July 31, 2011 and 2010 incorporated by reference in this prospectus.

(5) Amount represents fees paid during the fiscal year ended July 31, 2011 for services rendered to us as our securities counsel.

SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The following table provides information regarding the beneficial ownership of our common stock as of April 9, 2012, or the Evaluation Date, by: (i) each of our directors, (ii) each of our current executive officers and (iii) all such directors and executive officers as a group. We know of no other person or group of affiliated persons that beneficially owns more than five percent of our common stock. The table is based upon information supplied by our directors, executive officers, and principal stockholders and a review of Schedules 13D and 13G, if any, filed with the SEC. Unless otherwise indicated in the footnotes to the table and subject to community property laws where applicable, we believe that each of the stockholders named in the table has sole voting and investment power with respect to the shares indicated as beneficially owned.

Applicable percentages are based on 47,697,074 shares outstanding as of the Evaluation Date, adjusted as required by rules promulgated by the SEC. These rules generally attribute beneficial ownership of securities to persons who possess sole or shared voting power or investment power with respect to those securities. In addition, these rules provide that shares of our common stock issuable pursuant to the exercise of stock options or warrants that are either immediately exercisable or exercisable within 60 days of the Evaluation Date be included as shares beneficially owned. These shares are deemed to be outstanding and beneficially owned by the person holding those options for the purpose of computing the percentage ownership of that person, but they are not treated as outstanding for the purpose of computing the percentage ownership of any other person.

Name (1)	Number of Shares Beneficially Owned	Percent of Common Stock
Gregory H. Barnhill	704,589(2)	1.48%
Dennis Brovarone	435,141(3)	*
John J. Carbone, MD	147,750(4)	*
Michael L. Krall	1,786,796(5)	3.71%
Paul V. Maier	205,400(6)	*
Donna Singer	632,755(7)	1.32%
Craig A. Johnson	200,000(8)	*
All of our executive officers and directors as a group (7 persons)	4,112,431(9)	8.39%

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* Indicates less than one percent of the outstanding shares of our common stock.

(1) The address for each person listed in the table is c/o Pure Bioscience, Inc., 1725 Gillespie Way, El Cajon, California 92020.

(2) Consists of 704,589 shares of common stock held directly by Mr. Barnhill.

(3) Consists of (a) 180,000 shares of common stock subject to options currently exercisable or exercisable within 60 days of the Evaluation Date, and (b) 255,141 shares of common stock held directly by Mr. Brovarone.

(4) Consists of (a) 50,000 shares of common stock subject to options currently exercisable or exercisable within 60 days of the Evaluation Date, and (b) 97,750 shares of common stock held directly by Dr. Carbone.

(5) Consists of (a) 505,000 shares of common stock subject to options currently exercisable or exercisable within 60 days of the Evaluation Date, and (b) 1,281,796 shares of common stock held directly by Mr. Krall.

(6) Consists of (a) 150,000 shares of common stock subject to options currently exercisable or exercisable within 60 days of the Evaluation Date, and (b) 55,400 shares of common stock held directly by Mr. Maier.

(7) Consists of (a) 260,000 shares of common stock subject to options currently exercisable or exercisable within 60 days of the Evaluation Date, and (b) 372,755 shares of common stock held directly by Ms. Singer.

(8)

Consists of 200,000 shares of common stock subject to options currently exercisable within 60 days of the Evaluation Date held by Mr. Johnson.

(9) Consists of (a) 1,345,000 shares of common stock subject to options currently exercisable or exercisable within 60 days of the Evaluation Date, and (b) 2,767,431 shares of common stock held directly by all directors and Named Executive Officers as a group.

CERTAIN RELATIONSHIPS AND RELATED PARTY TRANSACTIONS

Certain Relationships and Related Person Transactions

For information with respect to other transactions and relationships between the Company and certain executive officers, directors and related persons, see the description of the employment agreements with our Named Executive Officers and our current Chief Financial Officer under the heading “Employment Agreements; Potential Payments Upon Termination or a Change in Control” elsewhere in this prospectus.

DESCRIPTION OF CAPITAL STOCK

Our authorized capital stock consists of 100,000,000 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 April 9, 2012, there were 47,697,074 shares of common stock outstanding and no shares of preferred stock outstanding. The following summary description of our capital stock is based on the provisions of our Certificate of Incorporation and Bylaws and the applicable provisions of the Delaware General Corporation Law, or the DGCL. This information is qualified entirely by reference to the applicable provisions of our Certificate of Incorporation and Bylaws and the DGCL.

Common Stock

Dividend rights. Subject to preferences that may apply to shares of preferred stock outstanding at the time, the holders of outstanding shares of our common stock are entitled to receive dividends out of funds legally available pursuant to the DGCL if our Board of Directors, in its discretion, determines to issue dividends and then only at the times and in the amounts that our Board of Directors may determine.

Voting rights. Each holder of common stock is entitled to one vote for each share of common stock held on all matters submitted to a vote of stockholders. Our Certificate of Incorporation does not provide for the right of stockholders to cumulate votes for the election of directors. Our Certificate of Incorporation does not establish a classified board of directors and all directors will be elected at each annual meeting of our stockholders.

No preemptive or similar rights. Our common stock is not entitled to preemptive rights and is not subject to conversion, redemption or sinking fund provisions. The rights, preferences and privileges of the holders of our common stock are subject to, and may be adversely affected by, the rights of the holders of any series of our preferred stock that we may designate and issue in the future.

Right to receive liquidation distributions. Upon our dissolution, liquidation or winding-up, the assets legally available for distribution to our stockholders are distributable ratably among the holders of our common stock, subject to prior satisfaction of all outstanding debt and liabilities and the preferential rights and payment of liquidation preferences, if any, on any outstanding shares of preferred stock.

Fully paid and nonassessable. All of our outstanding shares of common stock are fully paid and nonassessable.

Transfer agent. The transfer agent for our common stock is Computershare Trust Company, N.A. Its address is 350 Indiana Street, Suite 800, Golden, Colorado 90401, and its telephone number is (303) 262-0600.

Exchange Listing. Our common stock is listed on the NASDAQ Capital Market under the symbol “PURE”.

Preferred Stock

Pursuant to our Certificate of Incorporation, our Board of Directors has the authority, without further action by our stockholders (unless such stockholder action is required by applicable law or NASDAQ 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 designations, powers, preferences and rights 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.

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. Preferred stock could be issued quickly with terms designed to delay or prevent a change in control of the Company or make removal of management more difficult. Additionally, the issuance of preferred stock may have the effect of decreasing the market price of our common stock.

Stock Options, Restricted Stock and Warrants

As of April 9, 2012, there were 6,330,400 shares of common stock reserved for issuance under our equity compensation plans or upon exercise of outstanding stock options or warrants. Of that number, 2,912,750 shares were reserved for issuance upon the exercise of outstanding options that were previously granted under our stock option plans or outstanding stock option agreements; 0 shares were reserved for issuance upon the vesting of currently unvested restricted stock; 1,708,550 shares were reserved for issuance upon the exercise of options, or the issuance of restricted stock, that may be granted in the future under our equity compensation plans; and 1,709,100 shares were reserved for issuance upon the exercise of outstanding warrants.

Anti-takeover effects of provisions of our Certificate of Incorporation, our Bylaws and Delaware law

Certificate of Incorporation and Bylaws
Because our stockholders do not have cumulative voting rights in the election of directors, stockholders holding a majority of the shares of common stock represented in person or by proxy at a duly called stockholder meeting will be able to elect all of our directors. Our Board of Directors will be able to elect a director to fill a vacancy created by the expansion of the Board or due to the resignation or departure of an existing member of the Board. Our Certificate of Incorporation and Bylaws also provide that all stockholder actions must be effected at a duly called meeting of stockholders and not by a consent in writing, and that only the Board of Directors pursuant to a resolution adopted by a majority of the total number of authorized directors may call a special meeting of stockholders. In addition, our Bylaws include a requirement for the advance notice of nominations for election to our Board of Directors or for proposing matters that can be acted upon at a stockholders' meeting. As described above, our Certificate of Incorporation also provides for the ability of the Board of Directors to issue, without stockholder approval, up to 5,000,000 shares of preferred stock with terms set by the Board of Directors, which rights could be senior to those of our common stock and which terms could be designed to delay or prevent a change in control of the Company or make removal of management more difficult.

The foregoing provisions may make it difficult for our existing stockholders to replace our Board of Directors, as well as for another party to obtain control of the Company by replacing our Board of Directors. In addition, the authorization of undesignated preferred stock makes it possible for the Board of Directors to issue preferred stock with voting or other rights or preferences that could impede the success of any attempt to change the Company's control. Further, our Certificate of Incorporation and Bylaws provide that we will indemnify our directors and officers against liabilities, losses and expenses incurred or suffered in investigations and legal proceedings resulting from their services for us, which may include service in connection with takeover defense measures.

Section 203 of the DGCL

We are subject to the provisions of Section 203 of the DGCL regulating corporate takeovers. Under Section 203 of the DGCL, a Delaware corporation is prohibited from engaging in a "business combination" with an "interested stockholder" for three years following the date that such person or entity becomes an interested stockholder. With certain exceptions, an interested stockholder is a person or entity that owns, individually or with or through other persons or entities, fifteen percent (15%) or more of the corporation's outstanding voting stock (including rights to acquire stock pursuant to an option, warrant, agreement, arrangement or understanding, or upon the exercise of conversion or exchange rights, and also stock as to which the person has voting rights only). The three-year moratorium imposed by Section 203 on business combinations does not apply if:

- Prior to the date on which the interested stockholder becomes an interested stockholder, the board of directors of the corporation approves either the business combination or the transaction that resulted in the person or entity becoming an interested stockholder;
- Upon consummation of the transaction that makes the person or entity an interested stockholder, the interested stockholder owns at least eighty-five percent (85%) of the corporation's voting stock outstanding at the time the transaction commenced (excluding, for purposes of determining voting stock outstanding, shares owned by directors who are also officers of the corporation and shares held by employee stock plans that do not give employee participants the right to decide confidentially whether to accept a tender or exchange offer); or
- On or after the date the person or entity becomes an interested stockholder, the business combination is approved both by the board of directors and by the stockholders at a meeting by sixty-six and two-thirds percent (66 2/3 %) of the outstanding voting stock not owned by the interested stockholder.

A Delaware corporation may "opt out" of these provisions with an express provision in its original certificate of incorporation or an express provision in its certificate or incorporation or bylaws resulting from a stockholders' amendment approved by at least a majority of the outstanding voting shares. We have not "opted out" and do not plan to "opt out" of these provisions. The statute could prohibit or delay mergers or other takeover or change in control attempts and, accordingly, may discourage attempts to acquire us.

LEGAL MATTERS

The validity of the securities offered by this prospectus will be passed upon for us by Morrison & Foerster LLP, San Diego, California. Any underwriter, dealer or agent may be advised about issues relating to any offering by its own legal counsel.

EXPERTS

The consolidated financial statements of Pure Bioscience, Inc. as of July 31, 2011 and 2010, and for the years then ended, have been incorporated by reference herein in reliance upon the report of Mayer Hoffman McCann P.C., independent registered public accounting firm, included herein, and upon the authority of said firm as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

We have filed with the SEC a registration statement under the Securities Act that registers the distribution of the securities offered under this prospectus. The registration statement, including the attached exhibits and schedules, contains additional relevant information about us and the securities. The rules and regulations of the SEC allow us to omit from this prospectus certain information included in the registration statement.

In addition, we file annual, quarterly and special reports, proxy statements and other information with the SEC. You may read and copy any materials we file with the SEC at the SEC's public reference room located at 100 F Street, N.E., Washington D.C. 20549. You may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330.

In addition, the SEC maintains an Internet web site at http://www.sec.gov that contains the reports, proxy statements and other information that we file with the SEC. We also maintain a web site at www.purebio.com, which provides additional information about our company and through which you can also access our SEC filings. The information set forth on our web site is not part of this prospectus.

The SEC allows us to "incorporate by reference" into this prospectus the information we have filed with the SEC in other documents. This means we can disclose important information to you by referring to those documents already

on file with the SEC that contain the information. The information incorporated by reference is considered to be part of this prospectus. We incorporate by reference into this prospectus the following documents, which we have filed with the SEC pursuant to the Exchange Act:

- Our annual report on Form 10-K for the year ended July 31, 2011, filed with the SEC on October 31, 2011;
- Our quarterly report on Form 10-Q and Form 10-Q/A for the quarterly period ended October 31, 2011, filed with the SEC on December 15, 2011 and December 22, 2011, respectively;
- Our quarterly report on Form 10-Q for the quarterly period ended January 31, 2012, filed with the SEC on March 16, 2012; and
- Our current reports on Form 8-K filed with the SEC on September 22, 2011, December 15, 2011, March 16, 2012 and March 28, 2012.

Any statement incorporated or deemed to be incorporated by reference shall be deemed to be modified or superseded for purposes of this prospectus to the extent that a statement contained in this prospectus modifies or supersedes that statement. We will provide to each person, including any beneficial owner, to whom a prospectus is delivered, without charge upon written or oral request, a copy of any or all of the reports or documents that are incorporated by reference into this prospectus but not delivered with the prospectus, including exhibits which are specifically incorporated by reference into such documents. If you would like to request documents from us, please send a request in writing or by telephone to us at the following address:

Pure Bioscience, Inc.
1725 Gillespie Way
San Diego, CA 92020
(619)596-8600

PART II - INFORMATION NOT REQUIRED IN PROSPECTUS

Item 13. Other Expenses of Issuance and Distribution.

The following table sets forth the various expenses incurred or to be incurred in connection with the registration of the securities being registered hereby, all of which will be borne by the Company. All amounts shown are estimates except for the SEC registration fee.

SEC registration fee	$	372
Legal fees and expenses	$	50,000
Accounting fees and expenses	$	5,000
Printing expenses	$	1,000
Miscellaneous fees and expenses	$	1,628
Total	$	58,000

Item 14. Indemnification of Directors and Officers.

The Company's Certificate of Incorporation provides that, except to the extent prohibited by the Delaware General Corporation Law, or the DGCL, the Company's directors shall not be liable to the Company or its stockholders for monetary damages for any breach of fiduciary duty as directors of the Company. Under the DGCL, the directors have a fiduciary duty to the Company, which is not eliminated by these provisions of the Certificate of Incorporation and, in appropriate circumstances, equitable remedies such as injunctive or other forms of nonmonetary relief will remain available. This provision does not affect the directors' responsibilities under any other laws, such as the U.S. federal securities laws or state or federal environmental laws.

Section 145 of the DGCL empowers a corporation to indemnify its directors and officers and to purchase insurance with respect to liability arising out of their capacity or status as directors and officers. The DGCL provides further that the indemnification permitted thereunder shall not be deemed exclusive of any other rights to which the directors and officers may be entitled under the corporation's bylaws, any agreement, a vote of stockholders or otherwise. The Company's Bylaws provide that the Company shall indemnify, to the fullest extent permitted by the DGCL and applicable law, as may be amended, any person who was or is a party or is threatened to be made a party to or is otherwise involved in any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative, by reason of the fact that he or she, or a person for whom he or she is the legal representative, is or was one of the Company's directors, officers, employees or agents or is or was serving at the Company's request as a director, officer, employee or agent of another corporation or of a partnership, joint venture, trust or other enterprise, including service with respect to employee benefit plans, against all expenses, liability and loss (including attorneys' fees, judgments, fines, ERISA excise taxes or penalties, and amounts paid or to be paid in settlement, and any interest, assessments, or other charges imposed thereon, and any federal, state, local, or foreign taxes imposed as a result of the actual or deemed receipt of any indemnification payments made to such person by the Company) reasonably incurred or suffered by such person.

The Company has purchased and intends to maintain insurance on behalf of any person who is or was a director or officer of the Company against any loss arising from any claim asserted against him or her and incurred by him or her in any such capacity, subject to certain exclusions.

Item 15. Recent Sales of Unregistered Securities.

In connection with this offering, the Company has issued to Wharton Capital Markets LLC, or Wharton, a warrant to purchase 200,000 shares of its common stock with an exercise price of $0.451 per share, as partial consideration for

Wharton's assistance in arranging the Company's agreements with Lincoln Park. The warrant was issued to Wharton in reliance on an exemption from registration under the Securities Act pursuant to Section 4(2) thereof and Regulation D promulgated thereunder, based on the offering of such securities to one investor and the lack of any general solicitation or advertising in connection with the issuance, the representation of the investor to the Company that it was an accredited investor (as that term is defined in Rule 501 of Regulation D) and that it was purchasing such securities for its own account and without a view to distribute them, and the issuance of such securities as restricted securities. Neither the warrant issued to Wharton nor the shares to be issued thereunder are to be registered under the Securities Act pursuant to this registration statement.

Pursuant to the $7.5M Purchase Agreement with Lincoln Park, on December 14, 2011 the Company issued to Lincoln Park 470,711 unregistered shares of its common stock as consideration for Lincoln Park's commitment to purchase the other shares covered by this registration statement. The shares were issued to Lincoln Park in reliance on an exemption from registration under the Securities Act pursuant to Section 4(2) thereof and Regulation D promulgated thereunder, based on the offering of such shares to one investor and the lack of any general solicitation or advertising in connection with the issuance, the representation of the investor to the Company that it was an accredited investor (as that term is defined in Rule 501 of Regulation D) and that it was purchasing such shares for its own account and without a view to distribute them, and the issuance of such shares as restricted securities. All such shares are to be registered for resale under the Securities Act pursuant to this registration statement.

On October 24, 2011, the Company entered into a one-year agreement with a consultant for investor relations services and, on October 27, 2011 and pursuant to such agreement, issued to the consultant 150,000 shares of its common stock, with a value of $97,000, in exchange for such services. The shares were sold pursuant to an exemption from registration under Section 4(2) of the Securities Act, based on the offering of such shares to only one investor and the lack of any general solicitation or advertising in connection with the issuance; the representation of the investor to the Company that it was an accredited investor (as that term is defined in Rule 501 of Regulation D) and that it was purchasing such shares for its own account and without a view to distribute them; and the issuance of such shares as restricted securities.

On October 21 and 22, 2010, the Company entered into unregistered securities purchase agreements with eleven non-affiliated accredited investors and, on October 25, 2010 and pursuant to such agreements, the Company sold 1,080,000 shares of its common stock to such investors at a price of $2.20 per share for net proceeds to the Company of $2.376 million. The Company did not engage any underwriter or placement agent to assist with the sales, and therefore no underwriter discounts or commissions were paid. The shares sold in the financing represented approximately 3% of the Company's outstanding common stock prior to the sale. The shares were sold in reliance on an exemption from registration under the Securities Act pursuant to Section 4(2) thereof and Regulation D promulgated thereunder, based on the offering of such shares to a limited number of investors and the lack of any general solicitation or advertising in connection with the issuance, the representation of the investors to the Company that they were accredited investors (as that term is defined in Rule 501 of Regulation D), and the issuance of such shares as restricted securities.

Item 16. Exhibits and Financial Statement Schedules.

The exhibits listed on the Index to Exhibits of this Registration Statement are filed herewith or are incorporated herein by reference to other filings.

(a) Exhibits. The following exhibits are included herein or incorporated herein by reference:

2.1	(1)	Agreement and Plan of Merger, dated as of March 24, 2011, by and between Pure Bioscience and Pure Bioscience, Inc.
3.1	(2)	Certificate of Incorporation of Pure Bioscience, Inc.
3.2	(3)	Bylaws of Pure Bioscience, Inc.
4.1	(4)	Form of Investor Warrant
4.2	(5)	Form of Investor Warrant
4.3	(6)	Form of Investor Warrant

4.4	(7)	Form of Placement Agent Warrant
4.5	(8)	Warrant, dated February 3, 2012, issued by Pure Bioscience, Inc. to Wharton Capital Markets LLC
5.1	*	Opinion of Morrison & Foerster LLP
10.1	(9)	PURE Bioscience 2007 Equity Incentive Plan
10.2	(10)	Placement Agent Agreement, dated as of April 28, 2009, by and between Pure Bioscience and Axiom Capital Management, Inc.
10.3	(11)	Placement Agent Agreement, dated as of August 3, 2009, by and between Pure Bioscience and Rodman & Renshaw, LLC
10.4	(12)	Amended and Restated Employment Agreement by and between Pure Bioscience and Michael L. Krall, dated October 12, 2009

10.5	(13)	Employment Agreement by and between Pure Bioscience and Donna Singer, dated October 12, 2009
10.6	(14)	Sales Agreement, dated as of April 29, 2011, by and between Pure Bioscience, Inc. and C.K. Cooper & Company, Inc., and terminated as of December 14, 2011
10.7	(15)	Employment Agreement by and between Pure Bioscience, Inc. and Craig Johnson, dated October 26, 2011
10.8	(16)	Form of Indemnification Agreement
10.9	(17)	Amendment to Amended and Restated Employment Agreement by and between Pure Bioscience, Inc. and Michael L. Krall, dated October 26, 2011
10.10	(18)	Amendment to Employment Agreement by and between Pure Bioscience, Inc. and Donna Singer, dated October 26, 2011
10.11	(19)	Purchase Agreement, dated December 14, 2011, by and between Pure Bioscience, Inc. and Lincoln Park Capital Fund, LLC
10.12	(20)	Purchase Agreement, dated December 15, 2011, by and between Pure Bioscience, Inc. and Lincoln Park Capital Fund, LLC
10.13	(21)	Registration Rights Agreement, dated December 14, 2011, by and between Pure Bioscience, Inc. and Lincoln Park Capital Fund, LLC
10.14	(22)	Engagement Letter, dated December 8, 2011, by and between Pure Bioscience, Inc. and Wharton Capital Markets LLC
10.15	*	First Amendment to Purchase Agreement, dated April 5, 2012, by and between Pure Bioscience, Inc. and Lincoln Park Capital Fund, LLC
21.1	(23)	Subsidiaries of the registrant
23.1	*	Consent of Mayer Hoffman McCann P.C.
23.2	*	Consent of Morrison & Foerster LLP (contained in Exhibit 5.1)
24.1	*	Power of Attorney (contained on the signature page)

*	Filed herewith
(1)	Incorporated by reference to Exhibit 2.1 to the Current Report on Form 8-K, filed with the SEC on March 25, 2011
(2)	Incorporated by reference to Exhibit 3.1 to the Current Report on Form 8-K, filed with the SEC on March 25, 2011
(3)	

Incorporated by reference to Exhibit 3.2 to the Current Report on Form 8-K, filed with the SEC on March 25, 2011

(4) Incorporated by reference to Exhibit 4.4 to the Current Report on Form 8-K, filed with the SEC on October 25, 2007

(5) Incorporated by reference to Exhibit 4.5 to the Current Report on Form 8-K, filed with the SEC on May 22, 2009

(6) Incorporated by reference to Exhibit 4.5 to the Current Report on Form 8-K, filed with the SEC on September 2, 2009

(7) Incorporated by reference to Exhibit 4.5 to the Current Report on Form 8-K, filed with the SEC on October 25, 2007

(8) Incorporated by reference to Exhibit 4.1 to the Quarterly Report on Form 10-Q filed with the SEC on March 16, 2012

(9) Incorporated by reference to Exhibit 10.15.8 to the Annual Report on Form 10-K, filed with the SEC on October 14, 2008

(10) Incorporated by reference to Exhibit 10.2 to the Current Report on Form 8-K, filed with the SEC on May 22, 2009

(11) Incorporated by reference to Exhibit 10.2 to the Current Report on Form 8-K, filed with the SEC on September 2, 2009

(12) Incorporated by reference to Exhibit 10.18 to the Annual Report on Form 10-K, filed with the SEC on October 13, 2009

(13) Incorporated by reference to Exhibit 10.20 to the Annual Report on Form 10-K, filed with the SEC on October 13, 2009

(14) Incorporated by reference to Exhibit 10.1 to the Current Report on Form 8-K, filed with the SEC on April 29, 2011

(15) Incorporated by reference to Exhibit 10.8 to the Annual Report on Form 10-K, filed with the SEC on October 31, 2011

(16) Incorporated by reference to Exhibit 10.9 to the Annual Report on Form 10-K, filed with the SEC on October 31, 2011

(17) Incorporated by reference to Exhibit 10.10 to the Annual Report on Form 10-K, filed with the SEC on October 31, 2011

(18) Incorporated by reference to Exhibit 10.11 to the Annual Report on Form 10-K, filed with the SEC on October 31, 2011

(19) Incorporated by reference to Exhibit 10.1 to the Current Report on Form 8-K, filed with the SEC on December 15, 2011

(20) Incorporated by reference to Exhibit 10.2 to the Current Report on Form 8-K, filed with the SEC on December 15, 2011

(21) Incorporated by reference to Exhibit 10.3 to the Current Report on Form 8-K, filed with the SEC on December 15, 2011

(22) Incorporated by reference to Exhibit 10.4 to the Current Report on Form 8-K, filed with the SEC on December 15, 2011

(23) Incorporated by reference to Exhibit 21.1 to the Annual Report on Form 10-K, filed with the SEC on October 13, 2009

(b) Financial Statement Schedules. All financial statement schedules are omitted because they are not applicable or not required or because the required information is included in the financial statements or notes thereto incorporated by reference in the prospectus included in this registration statement.

Item 17. Undertakings.

The undersigned registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

(i) To include any prospectus required by Section 10(a)(3) of the Securities Act of 1933;

(ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the SEC pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20 percent change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement; and

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement.

(2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(4) That, for the purpose of determining liability of the registrant under the Securities Act of 1933 to any purchaser in the initial distribution of the securities, the undersigned registrant undertakes that in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:

(i) Any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424 (§230.424 of Title 17 of the Code of Federal Regulations);

(ii) Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant;

(iii) The portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and

(iv) Any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.

(5) Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act of 1933 and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act of 1933 and will be governed by the final adjudication of such issue.

(6) That, for the purpose of determining liability under the Securities Act of 1933 to any purchaser, each prospectus filed pursuant to Rule 424(b) as part of a registration statement relating to an offering, other than registration statements relying on 430B or other than prospectuses filed in reliance on Rule 430A (§230.430A of Title 17 of the Code of Federal Regulations), shall be deemed to be part of and included in the registration statement as of the date it is first used after effectiveness. Provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such first use, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such date of first use.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized in the City of San Diego, State of California, on April 10, 2012.

PURE BIOSCIENCE, INC.

By:	/s/ Michael L. Krall
Name:	Michael L. Krall
Title:	President, Chief Executive Officer, Chairman and Director

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Michael L. Krall and Craig A. Johnson, and each or any one of them, his or her true and lawful attorney-in-fact, with the power of substitution and resubstitution, for him or her and in his or her name, place and stead, in any and all capacities, to sign any and all amendments (including pre-effective amendments and post-effective amendments) to this registration statement, and to file the same, with exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, or any of them, or their or his or her substitutes or substitute, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this registration statement has been signed by the following persons in the capacities and on the dates indicated.

Signature	Title	Date
/s/ Michael L. Krall J. Michael L. Krall	President, Chief Executive Officer, Chairman and Director (Principal Executive Officer)	April 10, 2012
/s/ Craig A. Johnson Craig A. Johnson	Chief Financial Officer (Principal Accounting and Financial Officer)	April 10, 2012
/s/ Gregory H. Barnhill Gregory H. Barnhill	Director	April 10, 2012
/s/ Dennis Brovarone Dennis Brovarone	Director	April 10, 2012
/s/ John J. Carbone	Director	

		April 10, 2012
John J. Carbone		
/s/ Paul V. Maier	Director	April 10, 2012
Paul V. Maier		
/s/ Donna Singer	Director	April 10, 2012
Donna Singer		