Filed Pursuant to Rule 424(b)(4)
Registration No. 333-197220

**PROSPECTUS**

# 3,500,000 Shares of Common Stock
# Warrants to Purchase 3,500,000 Shares of Common Stock

# PlasmaTech Biopharmaceuticals, Inc.

We are offering 3,500,000 shares of common stock and warrants to purchase an aggregate 3,500,000 shares of common stock at an offering price of $4.00 per share and $.01 per warrant. Each warrant will have an exercise price of 5.00 per share, will be exercisable upon issuance and will expire five years from the date of issuance.

Our common stock is presently quoted on the OTCQB under the symbol “PTBI”. From October 24, 2014 until November 21, 2014 our common stock was quoted under the symbol “ACCPD”. Prior to October 24, 2014, our common stock was quoted under the symbol “ACCP”. On October 24, 2014, we effected a 1 for 50 reverse stock split of our common stock. On December 18, 2014, the last reported sale price of our common stock on the OTCQB was $5.83 per share. Our common stock and warrants have been approved for listing on The NASDAQ Capital Market under the symbols “PTBI and “PTBIW”, respectively.

**INVESTING IN THE OFFERED SECURITIES INVOLVES A HIGH DEGREE OF RISK. SEE “RISK FACTORS” BEGINNING ON PAGE 8 OF THIS PROSPECTUS FOR A DISCUSSION OF INFORMATION THAT YOU SHOULD CONSIDER BEFORE INVESTING IN OUR SECURITIES.**

**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.**

| | Per Share | Per Warrant | Total |
|---|---|---|---|
| Public offering price | $ 4.00 | $ 0.01 | $ 14,035,000 |
| Underwriting discounts and commissions(1) | $ 0.28 | $ 0.0007 | $ 982,450 |
| Proceeds to us, before expenses | $ 3.72 | $ 0.0093 | $ 13,052,550 |

(1) The underwriters will receive compensation in addition to the underwriting discount. See “Underwriting” beginning on page 62.

We have granted a 45-day option to the representative of the underwriters to purchase up to 525,000 additional shares and/or 525,000 warrants from us solely to cover over-allotments, if any. The shares and/or warrants issuable upon exercise of the underwriter option are identified to those offered by this prospectus and have been registered under the registration statement of which this prospectus forms a part. If the underwriters exercise the option in full, the total discount and commission will be $1,129,818 and the total net proceeds, before expenses, to us will be $15,010,433.

The underwriters expect to deliver the shares and warrants against payment thereof on or about, December 24, 2014.

**H.C. Wainwright & Co.** **Aegis Capital Corp**

The date of this prospectus is December 18, 2014

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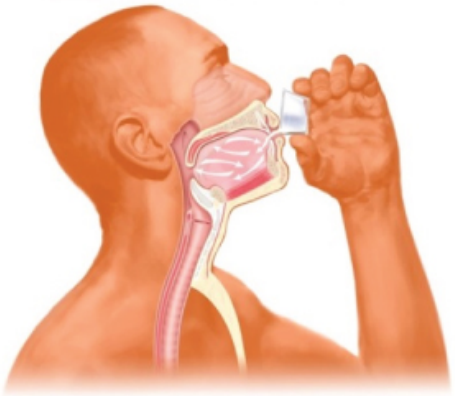
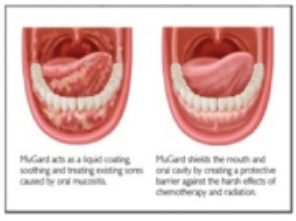
PLASMATECH BIOPHARMACEUTICALS

| SDF Process: Salt Diafiltration Process | Complete | 2014 | 2015 | 2016 | 2017 | 2017 Market Opportunity |
|---|---|---|---|---|---|---|
| SDF Alpha™ (Alpha-1) | Process validation, Patent | PTBI License, Manufacturer Qualification | Process Scale Up | Regulatory | Commercial | > $ 2.5B |
| SDF Gamma™ (IVIG) | | | Process Scale Up | Regulatory | Commercial | > $11.5B |
| PlasmaTech™ Ultra-Orphan | | | Discovery | TBD | TBD | > $ 1B |
| | | | | Plasma Protein Addressable Markets | | ~ $15B |

| PHT: Polymer Hydrogel Technology Platform | | | | | 2015 Market Opportunity |
|---|---|---|---|---|---|
| MuGard® | 510(k) US: AMAG, China: RHEI | | Europe: Norgine, Korea: Hanmi | ongoing global commercial optimization | > $1B |
| ProctiGard™ | | 510(k) | Commercial | | > $500M |
| BenzaGard™ | | FDA Discussions towards 510(k) | | Commercial | > $500M |
| | | | | Oncology Supportive Care Markets | > $2B |

MuGard™ Oral Mucoadhesive Hydrogel




*Commercial Products Launching 2014/15*

MuGard™ Oral Mucoadhesive Hydrogel

ProctiGard™

## FORWARD-LOOKING STATEMENTS

This prospectus contains "forward-looking statements" within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended, and that involve risks and uncertainties. These statements include, without limitation, statements relating to uncertainties associated with research and development activities, clinical trials, our ability to raise capital, the timing of and our ability to achieve regulatory approvals, dependence on others to market our licensed products, collaborations and our ability to attract licensing partners, future cash flow, the timing and receipt of licensing and milestone revenues, the future success of our marketed products and products in development, our sales projections, and the sales projections of our licensing partners, our ability to achieve licensing milestones, the size of the prospective markets in which we may offer products, anticipated product launches and our commercialization strategies, our ability to continue as a going concern, anticipated product approvals and timing thereof, product opportunities, clinical trials and U.S. Food and Drug Administration ("FDA") applications, as well as our drug development strategy, our clinical development organization expectations regarding our rate of technological developments and competition, our plan not to establish an internal marketing organization, our expectations regarding minimizing development risk and developing and introducing technology, the terms of future licensing arrangements, our ability to secure additional financing for our operations, our ability to establish new relationships and maintain current relationships, our ability to attract and retain key personnel, our belief that we will not pay any cash dividends in the foreseeable future, our belief that a failure to obtain necessary additional capital in the future will result in our operations being jeopardized, our belief that we will expend substantial funds to conduct research and development programs, preclinical studies and clinical trials of potential products, our belief that the market for a mucositis product is in excess of $1 billion, our belief that we have a rich pipeline of products and product candidates, our belief that recently licensed technology will enable us to provide new therapeutic applications and expand market opportunities while enhancing margins, our belief that we will continue to evaluate the most cost-effective methods to advance our programs, and our expected cash burn rate. These statements relate to future events or our future financial performance. In some cases, you can identify forward-looking statements by terminology such as "may," "will," "should," "expects," "plans," "could," "anticipates," "believes," "estimates," "predicts," "potential" or "continue" or the negative of such terms or other comparable terminology. We intend the forward-looking statements to be covered by the safe harbor for forward-looking statements in these sections. The forward-looking information is based on various factors and was derived using numerous assumptions.

Forward-looking statements necessarily involve risks and uncertainties, and our actual results could differ materially from those anticipated in the forward-looking statements due to a number of factors, including those set forth under "Risk Factors" and elsewhere in this prospectus. The factors set forth under "Risk Factors" and other cautionary statements made in this prospectus should be read and understood as being applicable to all related forward-looking statements wherever they appear in this prospectus. The forward-looking statements contained in this prospectus represent our judgment as of the date of this prospectus. We caution readers not to place undue reliance on such statements. Except as required by law, we undertake no obligation to update publicly any forward-looking statements for any reason, even if new information becomes available or other events occur in the future.

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**You should rely only on the information provided in this prospectus or amendment thereto. We have not authorized anyone to provide any information or to make any representations other than those contained in this prospectus or in any free writing prospectus prepared by or on behalf of us or to which we have referred you. We take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give to you. The information contained in this prospectus is accurate only as of the date of this prospectus, regardless of the time of delivery of this prospectus or any sale of our common stock and warrants.**

## PROSPECTUS SUMMARY

*This summary highlights certain information appearing elsewhere in this prospectus. For a more complete understanding of this offering, you should read the entire prospectus carefully, including the risk factors and the financial statements. You should read both this prospectus and any prospectus supplement together with additional information described below under the heading "Where You Can Find More Information" beginning on page 70. Unless the context requires otherwise, references to "PlasmaTech," our "company," "we," "us" or "our" refer to PlasmaTech Biopharmaceuticals, Inc., a Delaware corporation.*

### Overview

We are an emerging biopharmaceutical company focused on developing a range of pharmaceutical products primarily based upon our nanopolymer chemistry technologies, and salt diafiltration process ("SDF") technology recently licensed from Plasma Technologies LLC ("Licensor"). We currently have one marketed product licensed in the U.S., Europe, China, Australia, New Zealand and Korea. We also have additional products and platform technologies in various stages of development and are seeking partners to continue development and/or to license the technology.

### Marketed Product

- MuGard® is our marketed product for the management of oral mucositis, a frequent side-effect of cancer therapy for which there is no established treatment. The market for mucositis treatment is estimated to be in excess of $1.0 billion worldwide. MuGard, a proprietary nanopolymer formulation, has received marketing allowance in the U.S. from the FDA. We launched MuGard in the U.S. in 2010.

  On June 6, 2013 we entered into an exclusive license agreement with AMAG Pharmaceuticals, Inc. ("AMAG"), related to the commercialization of MuGard in the U.S. and its territories. Under the terms of the licensing agreement we received an upfront licensing fee of $3.3 million and a tiered, double-digit royalty on net sales of MuGard in the licensed territory. We receive quarterly royalty payments from AMAG.

  On August 5, 2010, we entered into an exclusive license with RHEI Pharmaceuticals ("RHEI") related to the commercialization of MuGard in China and other Southeast Asian countries. Our China partners have received an acceptance letter from the State Food and Drug Administration of the People's Republic of China, which provides marketing approval in China. MuGard has been manufactured in the U.S. and shipped to China for sale. RHEI has rights to sub-license MuGard sales in some Southeast Asia countries.

  On March 11, 2014, we announced we had entered into an exclusive license agreement with Hanmi Pharmaceutical Co. Ltd. ("Hanmi") related to MuGard commercialization in South Korea.

  On August 7, 2014, we entered into an exclusive license agreement with Norgine B.V. ("Norgine"), a leading independent European specialty pharmaceutical company, for the commercialization of MuGard in Europe. Under the terms of the license agreement, we could receive up to $10 million in milestone payments and an escalating double digit royalty on the net sales of the oral mucositis product, MuGard, in the licensed territories. Norgine will develop, manufacture, and commercialize MuGard in the European Union, Switzerland, Norway, Iceland and Lichtenstein. Norgine anticipates launching MuGard in 2015.

  On October 27, 2014, we entered into an exclusive license agreement with Norgine B.V., a European specialist pharmaceutical company, for the commercialization of MuGard in Australia and New Zealand. The terms of the agreement are congruent to our recent license with Norgine for MuGard in Europe. Norgine intends to develop, manufacture and commercialize MuGard in the new territories.

  We are actively seeking partners to license MuGard in other territories.

**Product Candidates**

- ProctiGard™ received FDA marketing clearance on July 22, 2014. ProctiGard is our product for the treatment of radiation proctitis, a frequent side effect of radiation treatment to the pelvic region. Radiation proctitis, or RP, is the inflammation and damage to the lower portion of the colon after exposure to x-rays or ionizing radiation as part of radiation therapy. RP is most common after treatments for cancer, such as cervical, colon and prostate cancer. RP can be acute, occurring within weeks of initiation of therapy, or can occur months or years after treatment. We intend to commercialize ProctiGard in a manner similar to the commercialization of MuGard, which may include confirmatory clinical trials, with the objective of commercialization in collaboration with marketing partners globally.
- LexaGard™ is our proprietary formulation of the generic pharmaceutical agent, amlexanox, a drug with known anti-inflammatory and anti-allergic properties that has been approved and used in the US, Japan, and other countries. We are positioning LexaGard for treatment of conditions of the upper gastrointestinal tract including Barrett's esophagus and esophagitis.
- We are also developing additional products using our proprietary mucoadhesive hydrogel technology as a mucoprotectant and/or delivery vehicle, as well as our vitamin B-12 mediated delivery technology.

| Compound | Originator | Technology | Indication | Clinical Stage |
|---|---|---|---|---|
| MuGard® | PlasmaTech | Mucoadhesive liquid | Mucositis | — Launched in U.S.<br>— Licensed to AMAG: U.S. rights<br>— Licensed to Norgine: European Union rights<br>— Licensed to RHEI: China rights and other SE Asia countries<br>— Licensed to Hanmi: South Korea rights |
| ProctiGard™ | PlasmaTech | Mucoadhesive hydrogel technology | Radiation proctitis | FDA clearance 7/22/14 |
| LexaGard™ | PlasmaTech | Mucoadhesive hydrogel technology | Inflammatory and ulcerative conditions of the esophagus | Filings being reviewed at FDA |
| Alpha-1 Antitrypsin (AAT) | Licensor | Proprietary biological processing | Various | Process validation |
| Intravenous immune globulin (IVIG) | Licensor | Proprietary biological processing | Various | Process validation |

**Recent Developments**

On October 27, 2014, we entered into an exclusive license agreement with Norgine B.V., a European specialist pharmaceutical company, for the commercialization of MuGard in Australia and New Zealand. The terms of the agreement are congruent to our recent license with Norgine for MuGard in Europe. Norgine intends to develop, manufacture and commercialize MuGard in the new territories.

On August 7, 2014, we entered into an exclusive license agreement with Norgine, an independent European specialty pharmaceutical company, for the commercialization of MuGard in Europe. Under the terms of the license agreement, we will receive up to $10 million in milestone payments and an escalating double digit royalty on the net sales of the oral mucositis product, MuGard, in the licensed territories. Norgine will develop, manufacture, and commercialize MuGard in the European Union, Switzerland, Norway, Iceland and Lichtenstein. Norgine anticipates launching MuGard in 2015.

On July 22, 2014 we received 510(K) marketing clearance from the FDA for ProctiGard ™ for the treatment of symptomatic management of rectal mucositis.

On July 8, 2014, we announced we received notification from the Hong Kong Patent Office that a patent for MuGard has been granted.

On March 11, 2014, we announced we had entered into an exclusive license agreement with Hanmi related to MuGard commercialization in South Korea. Under the terms of the agreement, we received an upfront licensing fee and double digit royalties on sales of MuGard in the licensed territory.

On September 12, 2014, we announced we had received notification from the European Patent Office that an additional European patent for MuGard had been granted. The patent (EP1997478) protects a wide range of liquid formulations for the prevention and treatment of mucosal diseases and disorders.

*Reverse Stock Split*

Our Board of Directors and majority shareholders approved an amendment to our certificate of incorporation to effect a reverse stock split of our common stock at a ratio between 1 for 5 and 1 for 50 in order to satisfy requirements for the listing of our common stock on the NASDAQ Capital Market. Our stockholders further authorized the board of directors to determine the ratio at which the reverse stock split would be effected. Our board of directors authorized the ratio of the Reverse Split on October 16, 2014 and to be effective at the opening of business on October 24, 2014. We amended our certificate of incorporation to effect the reverse split at a ratio of 1 for 50 on October 24, 2014 (the "Reverse Split"). All share and per share numbers included in this prospectus give effect to the Reverse Split.

*Plasma Technologies LLC License*

On September 22, 2014, we entered into an exclusive, worldwide licensing agreement with Licensor to obtain rights to utilize and to sub-license its recently patented methods for the extraction of therapeutic biologics from human plasma. Plasma biologics are bio-pharmaceutical proteins extracted, purified, and formulated from human blood plasma by the use of biotechnological processing techniques including precipitation, diafiltration, affinity chromatography, and ion-exchange chromatography. Because plasma biologics are biosimilar, they are less likely than recombinant or transgenic proteins to cause toxic or other adverse reactions, or cause adverse immunological responses such as the stimulation of inhibitors in recipients.

Under the terms of the licensing agreement, we will pay a license fee of $5 million in a combination of cash and common stock subject to the achievement of certain events, a regulatory approval milestone payment in common shares upon the first FDA regulatory approval of a drug derived from the Licensor's proprietary SDF process, and a tiered royalty on annual net sales of plasma fractions produced with Licensor's proprietary SDF process.

Licensor was founded to develop superior high-yield technology to extract a wide range of therapeutically useful proteins from human blood plasma. We believe that Licensor's proprietary SDF process is expected to significantly enhance yields of key value blood proteins, including alpha-1 antitrypsin ("AAT"), expanding market opportunities, while greatly enhancing margins. We obtained rights to utilize and sub-license to other pharmaceutical firms the recently patented improved methods for the extraction of therapeutic biologics from human plasma. We believe that Licensor's lead product, SDF Alpha, offers a low-risk, high revenue, short time-to-market respiratory product for treatment of inherited COPD (pulmonary emphysema), among other genetic AAT deficiencies. Additionally, the ability to extract several additional therapeutically useful and important proteins, due to the process being less destructive than historical fractionation processes, may enable us to seek new therapeutic applications and address high-value-added orphan indications.

**Corporate Information**

Our principal executive office is located at 4848 Lemmon Avenue, Suite 517, Dallas, Texas 75219; our telephone number is (214) 905-5100.

On October 24, 2014 we changed our name from Access Pharmaceuticals, Inc. to PlasmaTech Biopharmaceuticals, Inc.

## SUMMARY OF THE OFFERING

| | |
|---|---|
| Securities offered by us | 3,500,000 shares of our common stock and warrants to purchase up to an aggregate 3,500,000 shares of common stock. |
| Description of warrants | Each warrant will have an exercise price of $5.00 per share, will be exercisable upon issuance and will expire five years from date of issuance. |
| Common stock to be outstanding immediately after this offering | 20,683,248 shares |
| Over-allotment option | The underwriters have an option for a period of 45 days to purchase up to additional 525,000 shares of our common stock and/or 525,000 warrants to cover over-allotments, if any. |
| Use of proceeds | We estimate that the net proceeds from this offering will be approximately $12.6 million, or approximately $14.5 million if the underwriters exercise their over-allotment option in full, at a public offering price of $4.00 per share and $0.01 per warrant after deducting the underwriting discount and estimated offering expenses payable by us. We intend to use the net proceeds from this offering for the clinical development and validation of the Licensor technologies, for the continued commercialization of MuGard, Proctigard, and for the development of follow-on portfolio products, for general corporate purposes including working capital, and for the upfront $1.0 million payment for Licensor exclusive license. |
| Risk Factors | You should read the “Risk Factors” section starting on page 8 for a discussion of factors to consider carefully before deciding to invest in our securities. |
| OTCQB Trading Symbol | PTBI |
| NASDAQ Capital Market Trading Symbol | Our shares of common stock and warrants have been approved for listing on The NASDAQ Capital Market under the symbol “PTBI” and “PTBIW,” respectively. |

The total number of shares of our common stock outstanding is 536,089 as of December 3, 2014 and excludes the following:

- 3,500,000 shares issuable upon the exercise of warrants in this offering;
- 207,833 shares of common stock reserved for future issuance under our equity incentive plans. As of December 3, 2014, there were options to purchase 233,834 shares of our common stock outstanding under our equity incentive plans with a weighted average exercise price of $23.60 per share;
- 577,756 shares of common stock issuable upon exercise of outstanding warrants as of December 3, 2014 with exercise prices ranging from $25.00 per share to $182.50 per share;
- 7,233,404 shares of our common stock initially issuable upon conversion of Series A Cumulative Convertible Preferred Stock, subject to adjustment;
- 5,000,000 shares of our common stock initially issuable upon conversion of Series B Cumulative Convertible Preferred Stock at the liquidating preference, subject to adjustment;
- 87,500 shares of our common stock underlying the warrants to be issued to the representative of the underwriters in connection with this offering; and
- 1,000,000 shares of common stock issued to Plasma Technologies LLC for licensed technology.

Unless otherwise indicated, all information in this prospectus assumes:

- a 1 for 50 reverse stock split of our issued and outstanding shares of common stock effected on October 24, 2014 and the corresponding adjustment of all common stock price per share data and stock option and warrant exercise price per share data.
- no exercise of the underwriters' option to purchase up to 525,000 additional shares of our common stock and/or 525,000 warrants to cover over-allotments, if any.

## SUMMARY CONDENSED CONSOLIDATED FINANCIAL INFORMATION

The following summary condensed consolidated financial information as of and for the years ended December 31, 2013 and 2012, have been derived from our audited financial statements. The financial information as of and for the nine months ended September 30, 2014 and 2013 is derived from our unaudited condensed consolidated financial statements. The condensed consolidated financial information set forth below should be read in conjunction with "Management's Discussion and Analysis of Financial Condition and Results of Operations" and the financial statements and notes thereto included elsewhere in this prospectus.

| (in thousands, except per share amounts) | For the Nine Months Ended September 30, | | For the Year Ended December 31, | |
|---|---|---|---|---|
| | 2014 | 2013 | 2013 | 2012 |
| | (unaudited) | (unaudited) | | |
| **Consolidated Statement of Operations:** | | | | |
| Total revenues | $ 691 | $ 1,880 | $ 2,042 | $ 4,404 |
| Loss from operations | (2,664) | (3,120) | (3,804) | (4,316) |
| Interest and miscellaneous income | 45 | 215 | 251 | 242 |
| Interest and other expense | (406) | (182) | (279) | (608) |
| Warrant extension expense | — | — | — | (2,316) |
| Gain on change in fair value of derivative – warrants | — | 140 | 271 | 1,236 |
| Gain (loss) on change in fair value of derivative – preferred stock | (11,810) | 8,471 | 8,010 | (4,770) |
| Net income (loss) | (14,835) | 5,524 | 4,449 | (10,532) |
| Preferred stock dividends | (2,191) | (2,202) | (2,898) | (1,999) |
| Net income (loss) allocable to common stockholders | $ (17,026) | $ 3,322 | $ 1,551 | $(12,531) |
| **Common Stock Data:** | | | | |
| Net income (loss) per common share | | | | |
| Basic | $ (32.46) | $ 6.61 | $ 3.07 | $ (25.89) |
| Diluted | $ (32.46) | $ 6.55 | $ 3.04 | $ (25.89) |
| Weighted average number of common shares outstanding | | | | |
| Basic | 525 | 502 | 505 | 484 |
| Diluted | 525 | 507 | 509 | 484 |

| | September 30, 2014 | |
|---|---|---|
| | Actual | Pro forma, as adjusted[(1)] |
| | (unaudited) | |
| **Consolidated Balance Sheet Data:** | | |
| Cash and cash equivalents | $ 165 | $ 11,726 |
| Total assets | 280 | 16,841 |
| Dividends payable | 9,277 | — |
| Deferred revenue | 5,621 | 5,621 |
| Total liabilities | 30,635 | 7,501 |
| Total stockholders' equity (deficit) | (30,355) | 9,340 |

(1) Our pro forma adjusted balance sheet as of September 30, 2014 gives effect to:

(i) the sale of the shares of common stock and warrants in this offering at a public offering price of $4.00 per share and $0.01 per warrant less underwriting discounts, commissions and estimated offering expenses payable by us;

(ii) the conversion of outstanding shares of Series A Preferred Stock, dividends payable on Series A Preferred Stock and interest on dividends payable into 8,885,129 shares of common stock upon consummation of this offering;

(iii) the exchange of outstanding shares of Series B Preferred Stock, including shares of Series B Preferred Stock issued upon conversion of dividends payable on Series B Preferred Stock, interest on dividends payable and liquidated damages for 6,763,530 shares of common stock upon consummation of this offering; and

(iv) 1,000,000 shares of common stock issued to Plasma Technologies, LLC for purchased licensed technology.

## RISK FACTORS

*Any investment in our securities involves a high degree of risk. You should carefully consider the risks described below, which we believe represent the material risks to our business, together with the information contained elsewhere in this prospectus, before you make a decision to invest in our securities. If any of the following events occur, our business, financial condition and operating results may be materially adversely affected. In that event, the trading price of our securities could decline and you could lose all or part of your investment.*

### Risks relating to our business and industry

**We have experienced a history of losses, we expect to incur future losses and we may be unable to obtain necessary additional capital to fund operations in the future.**

We have recorded minimal revenue to date and have incurred an accumulated deficit of approximately $283.4 million through September 30, 2014 and $266.4 million through December 31, 2013. Net loss allocable to common stockholders for the nine months ended September 30, 2014 was $17.0 million and net income allocable to common stockholders for the year ended December 31, 2013 was $1.6 million and the net loss for the year ended December 31, 2012 was $12.5 million. Our losses have resulted principally from costs incurred in research and development activities related to our efforts to develop clinical drug candidates and from the associated administrative costs. We expect to incur additional operating losses over the next several years. We also expect cumulative losses to increase if we expand research and development efforts and preclinical and clinical trials. Our net cash burn rate for the nine months ended September 30, 2014 was approximately $30,000 per month and for the year ended December 31, 2013 was approximately $289,000 per month.

We require substantial capital for our development programs and operating expenses, to pursue regulatory clearances and to prosecute and defend our intellectual property rights. We believe that our existing capital resources, interest income, royalties and revenue from our licensing agreements and collaborative agreements will be sufficient to fund our currently expected operating expenses and capital requirements for the next twelve months. We will need to raise substantial additional capital to support our ongoing and planned operations.

If we raise additional funds by issuing equity securities, further dilution to existing stockholders will result and future investors may be granted rights superior to those of existing stockholders. If adequate funds are not available to us through additional equity offerings, we may be required to delay, reduce the scope of or eliminate one or more of our research and development programs or to obtain funds by entering into arrangements with collaborative partners or others that require us to issue additional equity securities or to relinquish rights to certain technologies or drug candidates that we would not otherwise issue or relinquish in order to continue independent operations.

**Without obtaining adequate capital funding, we may not be able to continue as a going concern.**

The report of our independent registered public accounting firm for the fiscal year ended December 31, 2013, contained an explanatory paragraph to reflect its significant doubt about our ability to continue as a going concern as a result of our history of losses and our liquidity position. If we are unable to obtain adequate capital funding in the future, we may not be able to continue as a going concern, which would have an adverse effect on our business and operations, and investors' investment in us may decline.

**We do not have significant operating revenue and may never attain profitability.**

To date, we have funded our operations primarily through private sales of common stock, preferred stock and convertible notes. Contract research payments and licensing fees from corporate alliances and mergers have also provided funding for our operations. Our ability to achieve significant revenue or profitability depends upon our ability to successfully market MuGard in North America, Europe, Korea and China or to complete the development of our drug candidates, to develop and obtain patent protection and regulatory approvals for our drug candidates and to manufacture and commercialize the resulting drugs. We are not expecting any significant revenues in the short-term from our products or product candidates. Furthermore, we may not be able to ever successfully identify, develop, commercialize, patent, manufacture, obtain required regulatory

approvals and market any additional products. Moreover, even if we do identify, develop, commercialize, patent, manufacture, and obtain required regulatory approvals to market additional products, we may not generate revenues or royalties from commercial sales of these products for a significant number of years, if at all. Therefore, our proposed operations are subject to all the risks inherent in the establishment of a new business enterprise. In the next few years, our revenues may be limited to minimal product sales and royalties, and any amounts that we receive under strategic partnerships and research or drug development collaborations that we may establish and, as a result, we may be unable to achieve or maintain profitability in the future or to achieve significant revenues in order to fund our operations.

**We may not successfully commercialize our drug candidates.**

Our drug candidates are subject to the risks of failure inherent in the development of pharmaceutical products based on new technologies, and our failure to develop safe commercially viable drugs would severely limit our ability to become profitable or to achieve significant revenues. We may be unable to successfully commercialize our drug candidates because:

- some or all of our drug candidates may be found to be unsafe or ineffective or otherwise fail to meet applicable regulatory standards or receive necessary regulatory clearances;
- our drug candidates, if safe and effective, may be too difficult to develop into commercially viable drugs;
- it may be difficult to manufacture or market our drug candidates on a large scale;
- proprietary rights of third parties may preclude us from marketing our drug candidates; and
- third parties may market superior or equivalent drugs.

**The success of our research and development activities, upon which we primarily focus, is uncertain.**

Our primary focus is on our research and development activities and the commercialization of compounds covered by proprietary biopharmaceutical patents and patent applications. Research and development activities, by their nature, preclude definitive statements as to the time required and costs involved in reaching certain objectives. Actual research and development costs, therefore, could significantly exceed budgeted amounts and estimated time frames may require significant extension. Cost overruns, unanticipated regulatory delays or demands, unexpected adverse side effects or insufficient therapeutic efficacy will prevent or substantially slow our research and development effort and our business could ultimately suffer. We anticipate that we will remain principally engaged in research and development activities for an indeterminate, but substantial, period of time.

**We may be unable to successfully develop, market, or commercialize our products or our product candidates without establishing new relationships and maintaining current relationships and our ability to successfully commercialize, and market our product candidates could be limited if a number of these existing relationships are terminated.**

Our strategy for the research, development and commercialization of our potential pharmaceutical products may require us to enter into various arrangements with corporate and academic collaborators, licensors, licensees and others, in addition to our existing relationships with other parties. Specifically, we may seek to joint venture, sublicense or enter other marketing arrangements with parties that have an established marketing capability or we may choose to pursue the commercialization of such products on our own. We may, however, be unable to establish such additional collaborative arrangements, license agreements, or marketing agreements as we may deem necessary to develop, commercialize and market our potential pharmaceutical products on acceptable terms. Furthermore, if we maintain and establish arrangements or relationships with third parties, our business may depend upon the successful performance by these third parties of their responsibilities under those arrangements and relationships.

**We may be unable to successfully manufacture our products and our product candidates in clinical quantities or for commercial purposes without the assistance of contract manufacturers, which may be difficult for us to obtain and maintain.**

We have limited experience in the manufacture of pharmaceutical products in clinical quantities or for commercial purposes and we may not be able to manufacture any new pharmaceutical products that we may develop. As a result, we have established, and in the future intend to establish arrangements with contract manufacturers to supply sufficient quantities of products to conduct clinical trials and for the manufacture, packaging, labeling and distribution of finished pharmaceutical products if any of our potential products are approved for commercialization. If we are unable to contract for a sufficient supply of our potential pharmaceutical or biopharmaceutical products on acceptable terms, our preclinical and human clinical testing schedule may be delayed, resulting in the delay of our clinical programs and submission of product candidates for regulatory approval, which could cause our business to suffer. Our business could suffer if there are delays or difficulties in establishing relationships with manufacturers to produce, package, label and distribute our finished pharmaceutical or biopharmaceutical or other medical products, if any. Moreover, US contract manufacturers that we may use must adhere to current Good Manufacturing Practices, as required by the FDA. In this regard, the FDA will not issue a pre-market approval or product and establishment licenses, where applicable, to a manufacturing facility for the products until the manufacturing facility passes a pre-approval plant inspection. If we are unable to obtain or retain third party manufacturing on commercially acceptable terms, we may not be able to commercialize our products as planned. Our potential dependence upon third parties for the manufacture of our products may adversely affect our ability to generate profits or acceptable profit margins and our ability to develop and deliver such products on a timely and competitive basis.

**We are subject to extensive governmental regulation which increases our cost of doing business and may affect our ability to commercialize any new products that we may develop.**

The FDA and comparable agencies in foreign countries impose substantial requirements upon the introduction of pharmaceutical products through lengthy and detailed laboratory, preclinical and clinical testing procedures and other costly and time-consuming procedures to establish safety and efficacy. All of our drugs and drug candidates require receipt and maintenance of governmental approvals for commercialization. Preclinical and clinical trials and manufacturing of our drug candidates will be subject to the rigorous testing and approval processes of the FDA and corresponding foreign regulatory authorities. Satisfaction of these requirements typically takes a significant number of years and can vary substantially based upon the type, complexity and novelty of the product.

Due to the time-consuming and uncertain nature of the drug candidate development process and the governmental approval process described above, we cannot assure you when we, independently or with our collaborative partners, might submit a New Drug Application, or NDA, for FDA or other regulatory review. Further, our ability to commence and/or complete development projects will be subject to our ability to raise enough funds to pay for the development costs of these projects.

Government regulation also affects the manufacturing and marketing of pharmaceutical products. Government regulations may delay marketing of our potential drugs for a considerable or indefinite period of time, impose costly procedural requirements upon our activities and furnish a competitive advantage to larger companies or companies more experienced in regulatory affairs. Delays in obtaining governmental regulatory approval could adversely affect our marketing as well as our ability to generate significant revenues from commercial sales. Our drug candidates may not receive FDA or other regulatory approvals on a timely basis or at all. Moreover, if regulatory approval of a drug candidate is granted, such approval may impose limitations on the indicated use for which such drug may be marketed. Even if we obtain initial regulatory approvals for our drug candidates, our drugs and our manufacturing facilities would be subject to continual review and periodic inspection, and later discovery of previously unknown problems with a drug, manufacturer or facility may result in restrictions on the marketing or manufacture of such drug, including withdrawal of the drug from the market. The FDA and other regulatory authorities stringently apply regulatory standards and failure to comply with regulatory standards can, among other things, result in fines, denial or withdrawal of regulatory approvals, product recalls or seizures, operating restrictions and criminal prosecution.

**The uncertainty associated with preclinical and clinical testing may affect our ability to successfully commercialize new products.**

Before we can obtain regulatory approvals for the commercial sale of any of our potential drugs, the drug candidates will be subject to extensive preclinical and clinical trials to demonstrate their safety and efficacy in humans. Preclinical or clinical trials of future drug candidates may not demonstrate the safety and efficacy to the extent necessary to obtain regulatory approvals. In this regard, for example, adverse side effects can occur during the clinical testing of a new drug on humans which may delay ultimate FDA approval or even lead it to terminate our efforts to develop the drug for commercial use. Companies in the biotechnology industry have suffered significant setbacks in advanced clinical trials, even after demonstrating promising results in earlier trials. The failure to adequately demonstrate the safety and efficacy of a drug candidate under development could delay or prevent regulatory approval of the drug candidate. A delay or failure to receive regulatory approval for any of our drug candidates could prevent us from successfully commercializing such candidates and we could incur substantial additional expenses in our attempt to further develop such candidates and obtain future regulatory approval.

**We may incur substantial product liability expenses due to the use or misuse of our products for which we may be unable to obtain insurance coverage.**

Our business exposes us to potential liability risks that are inherent in the testing, manufacturing and marketing of pharmaceutical products. These risks will expand with respect to our drug candidates, if any, that receive regulatory approval for commercial sale and we may face substantial liability for damages in the event of adverse side effects or product defects identified with any of our products that are used in clinical tests or marketed to the public. Product liability insurance for the biotechnology industry is generally expensive, if available at all, and as a result, we may be unable to obtain insurance coverage at acceptable costs or in a sufficient amount in the future, if at all. We may be unable to satisfy any claims for which we may be held liable as a result of the use or misuse of products which we developed, manufactured or sold and any such product liability claim could adversely affect our business, operating results or financial condition.

**Intense competition may limit our ability to successfully develop and market commercial products.**

The biotechnology and pharmaceutical industries are intensely competitive and subject to rapid and significant technological change. Our competitors in the U.S. and elsewhere are numerous and include, among others, major multinational pharmaceutical and chemical companies, specialized biotechnology firms and universities and other research institutions.

Many of our competitors have and employ greater financial and other resources, including larger research and development, marketing and manufacturing organizations. As a result, our competitors may successfully develop technologies and drugs that are more effective or less costly than any that we are developing or which would render our technology and future products obsolete and noncompetitive.

In addition, some of our competitors have greater experience than we do in conducting preclinical and clinical trials and obtaining FDA and other regulatory approvals. Accordingly, our competitors may succeed in obtaining FDA or other regulatory approvals for drug candidates more rapidly than we can. Companies that complete clinical trials, obtain required regulatory agency approvals and commence commercial sale of their drugs before their competitors may achieve a significant competitive advantage. Drugs resulting from our research and development efforts or from our joint efforts with collaborative partners therefore may not be commercially competitive with our competitors' existing products or products under development.

**Our ability to successfully develop and commercialize our drug candidates will substantially depend upon the availability of reimbursement funds for the costs of the resulting drugs and related treatments.**

Market acceptance and sales of our product candidates may depend on coverage and reimbursement policies and health care reform measures. Decisions about formulary coverage as well as levels at which government authorities and third-party payers, such as private health insurers and health maintenance organizations, reimburse patients for the price they pay for our products as well as levels at which these payors pay directly for our products, where applicable, could affect whether we are able to commercialize these products. We cannot be sure that reimbursement will be available for any of these products. Also, we cannot be sure that coverage or reimbursement amounts will not reduce the demand for, or the price of, our products. We have

not commenced efforts to have our product candidates reimbursed by government or third party payors. If coverage and reimbursement are not available or are available only at limited levels, we may not be able to commercialize our products.

In recent years, officials have made numerous proposals to change the health care system in the U.S. These proposals include measures that would limit or prohibit payments for certain medical treatments or subject the pricing of drugs to government control. In addition, in many foreign countries, particularly the countries of the European Union, the pricing of prescription drugs is subject to government control. If our products are or become subject to government regulation that limits or prohibits payment for our products, or that subjects the price of our products to governmental control, we may not be able to generate revenue, attain profitability or commercialize our products.

As a result of legislative proposals and the trend towards managed health care in the U.S., third-party payors are increasingly attempting to contain health care costs by limiting both coverage and the level of reimbursement of new drugs. They may also impose strict prior authorization requirements and/or refuse to provide any coverage of uses of approved products for medical indications other than those for which the FDA has granted market approvals. As a result, significant uncertainty exists as to whether and how much third-party payors will reimburse patients for their use of newly-approved drugs, which in turn will put pressure on the pricing of drugs.

**The market may not accept any pharmaceutical products that we develop.**

The drugs that we are attempting to develop may compete with a number of well-established drugs manufactured and marketed by major pharmaceutical companies. The degree of market acceptance of any drugs developed by us will depend on a number of factors, including the establishment and demonstration of the clinical efficacy and safety of our drug candidates, the potential advantage of our drug candidates over existing therapies and the reimbursement policies of government and third-party payers. Physicians, patients or the medical community in general may not accept or use any drugs that we may develop independently or with our collaborative partners and if they do not, our business could suffer.

**Healthcare reform measures could hinder or prevent our product candidates' commercial success.**

The U.S. government and other governments have shown significant interest in pursuing healthcare reform. Any government-adopted reform measures could adversely impact the pricing of healthcare products and services in the U.S. or internationally and the amount of reimbursement available from governmental agencies or other third party payors. The continuing efforts of the U.S. and foreign governments, insurance companies, managed care organizations and other payors of health care services to contain or reduce health care costs may adversely affect our ability to set prices for our products which we believe are fair, and our ability to generate revenues and achieve and maintain profitability.

New laws, regulations and judicial decisions, or new interpretations of existing laws, regulations and decisions, that relate to healthcare availability, methods of delivery or payment for products and services, or sales, marketing or pricing, may limit our potential revenue, and we may need to revise our research and development programs. The pricing and reimbursement environment may change in the future and become more challenging due to several reasons, including policies advanced by the current executive administration in the U.S., new healthcare legislation or fiscal challenges faced by government health administration authorities. Specifically, in both the U.S. and some foreign jurisdictions, there have been a number of legislative and regulatory proposals to change the health care system in ways that could affect our ability to sell our products profitably.

For example, in March 2010, President Obama signed the Patient Protection and Affordable Care Act, as amended by the Health Care and Education Reconciliation Act, or the PPACA. This law will substantially change the way healthcare is financed by both government health plans and private insurers, and significantly impact the pharmaceutical industry. The PPACA contains a number of provisions that are expected to impact our business and operations in ways that may negatively affect our potential revenues in the future. For example, the PPACA imposes a non-deductible excise tax on pharmaceutical manufacturers or importers that sell branded prescription drugs to U.S. government programs which we believe will increase the cost of our products. In addition, as part of the PPACA's provisions closing a funding gap that currently exists in the

Medicare Part D prescription drug program (commonly known as the "donut hole"), we will be required to provide a discount on branded prescription drugs equal to 50% of the government-negotiated price, for drugs provided to certain beneficiaries who fall within the donut hole. Similarly, PPACA increases the level of Medicaid rebates payable by manufacturers of brand-name drugs from 15.1% to 23.1% and requires collection of rebates for drugs paid by Medicaid managed care organizations. The PPACA also includes significant changes to the 340B drug discount program including expansion of the list of eligible covered entities that may purchase drugs under the program. At the same time, the expansion in eligibility for health insurance benefits created under PPACA is expected to increase the number of patients with insurance coverage who may receive our products. While it is too early to predict all the specific effects the PPACA or any future healthcare reform legislation will have on our business, they could have a material adverse effect on our business and financial condition.

Congress periodically adopts legislation like the PPACA and the Medicare Prescription Drug, Improvement and Modernization Act of 2003, that modifies Medicare reimbursement and coverage policies pertaining to prescription drugs. Implementation of these laws is subject to ongoing revision through regulatory and sub regulatory policies. Congress also may consider additional changes to Medicare policies, potentially including Medicare prescription drug policies, as part of ongoing budget negotiations. While the scope of any such legislation is uncertain at this time, there can be no assurances that future legislation or regulations will not decrease the coverage and price that we may receive for our proposed products. Other third-party payors are increasingly challenging the prices charged for medical products and services. It will be time consuming and expensive for us to go through the process of seeking coverage and reimbursement from Medicare and private payors. Our proposed products may not be considered cost-effective, and coverage and reimbursement may not be available or sufficient to allow us to sell our proposed products on a profitable basis. Further federal and state proposals and health care reforms are likely which could limit the prices that can be charged for the product candidates that we develop and may further limit our commercial opportunities. Our results of operations could be materially adversely affected by proposed healthcare reforms, by the Medicare prescription drug coverage legislation, by the possible effect of such current or future legislation on amounts that private insurers will pay and by other health care reforms that may be enacted or adopted in the future.

In September 2007, the Food and Drug Administration Amendments Act of 2007 was enacted, giving the FDA enhanced post-marketing authority, including the authority to require post-marketing studies and clinical trials, labeling changes based on new safety information, and compliance with risk evaluations and mitigation strategies approved by the FDA. The FDA's exercise of this authority could result in delays or increased costs during product development, clinical trials and regulatory review, increased costs to assure compliance with post-approval regulatory requirements, and potential restrictions on the sale and/or distribution of approved products.

**Our business could suffer if we lose the services of, or fail to attract, key personnel.**

We are highly dependent upon the efforts of our senior management, including our Chief Executive Officer, Scott Schorer; our President and Chief Financial Officer, Harrison Wehner; and our consultant and board member Jeffrey B. Davis. The loss of the services of these individuals could delay or prevent the achievement of our research, development, marketing, or product commercialization objectives. We do not have employment contracts with our other key personnel. We do not maintain any 'key-man' insurance policies on any of our key employees and we do not intend to obtain such insurance. In addition, due to the specialized scientific nature of our business, we are highly dependent upon our ability to attract and retain qualified scientific and technical personnel and consultants. In view of the stage of our development and our research and development programs, we have restricted our hiring to research scientists, consultants and a small administrative staff and we have made only limited investments in manufacturing, production, sales or regulatory compliance resources. There is intense competition among major pharmaceutical and chemical companies, specialized biotechnology firms and universities and other research institutions for qualified personnel in the areas of our activities, however, and we may be unsuccessful in attracting and retaining these personnel.

**Trends toward managed health care and downward price pressures on medical products and services may limit our ability to profitably sell any drugs that we may develop.**

Lower prices for pharmaceutical products may result from:

- third-party-payers' increasing challenges to the prices charged for medical products and services;
- the trend toward managed health care in the U.S. and the concurrent growth of HMOs and similar organizations that can control or significantly influence the purchase of healthcare services and products; and
- legislative proposals to reform healthcare or reduce government insurance programs.

The cost containment measures that healthcare providers are instituting, including practice protocols and guidelines and clinical pathways, and the effect of any healthcare reform, could limit our ability to profitably sell any drugs that we may successfully develop. Moreover, any future legislation or regulation, if any, relating to the healthcare industry or third-party coverage and reimbursement, may cause our business to suffer.

**Security breaches and other disruptions could compromise our information and expose us to liability, which would cause our business and reputation to suffer.**

In the ordinary course of our business, we collect and store sensitive data, including intellectual property, our proprietary business information and that of our suppliers and business partners, as well as personally identifiable information of clinical trial participants and employees. Similarly, our business partners and third party providers possess certain of our sensitive data. The secure maintenance of this information is critical to our operations and business strategy. Despite our security measures, our information technology and infrastructure may be vulnerable to attacks by hackers or breached due to employee error, malfeasance or other disruptions. Any such breach could compromise our networks and the information stored there could be accessed, publicly disclosed, lost or stolen. Any such access, disclosure or other loss of information, including our data being breached at our business partners or third-party providers, could result in legal claims or proceedings, liability under laws that protect the privacy of personal information, disrupt our operations, and damage our reputation which could adversely affect our business.

**Risks Related to our Intellectual Property**

**It is difficult and costly to protect our proprietary rights, and we may not be able to ensure protection of such rights.**

Our commercial success will depend in part on obtaining and maintaining patent protection and trade secret protection of our product candidates, and the methods used to manufacture them, as well as successfully defending these patents against third-party challenges. We will only be able to protect our product candidates from unauthorized making, using, selling and offering to sell or importation by third parties to the extent that we have rights under valid and enforceable patents or trade secrets that cover these activities.

The patent positions of pharmaceutical and biotechnology companies can be highly uncertain and involve complex legal and factual questions for which important legal principles remain unresolved. No consistent policy regarding the breadth of claims allowed in biotechnology patents has emerged to date in the U.S. The biotechnology patent situation outside the U.S. is even more uncertain. Changes in either the patent laws or in interpretations of patent laws in the U.S. and other countries may diminish the value of our intellectual property. Accordingly, we cannot predict the breadth of claims that may be allowed or enforced in our issued patents or in third-party patents.

The degree of future protection for our proprietary rights is uncertain because legal means afford only limited protection and may not adequately protect our rights or permit us to gain or keep our competitive advantage. For example:

- others may be able to produce compounds or molecules that are competitive with our product candidates but that are not covered by the claims of our patents;
- we may not have been the first to make the inventions covered by our pending patent applications;
- we may not have been the first to file patent applications for these inventions;

- others may independently develop similar or alternative technologies or duplicate any of our technologies;
- it is possible that our pending patent applications will not result in issued patents and it is possible that our issued patents could be narrowed in scope, invalidated, held to be unenforceable, or circumvented;
- we may not develop additional proprietary technologies that are patentable; or
- the patents of others may have an adverse effect on our business; or
- others may be able to misappropriate our trade secrets.

We also may rely on trade secrets to protect our technology, especially where we do not believe patent protection is appropriate or obtainable. However, trade secrets are difficult to protect. While we use reasonable efforts to protect our trade secrets, our employees, consultants, contractors, outside scientific collaborators and other advisors may unintentionally or willfully disclose our information to competitors. Enforcing a claim that a third party illegally obtained and is using our trade secrets is expensive and time consuming, and the outcome is unpredictable. In addition, courts outside the United States are sometimes less willing to protect trade secrets. Moreover, our competitors may independently develop equivalent knowledge, methods and know-how.

**We may incur substantial costs as a result of litigation or other proceedings relating to patent and other intellectual property rights and we may be unable to protect our rights to, or use, our technology.**

If we choose to go to court to stop someone else from using the inventions claimed in our patents, that individual or company has the right to ask the court to rule that these patents are invalid and/or should not be enforced against that third party. These lawsuits are expensive and would consume time and other resources even if we were successful in stopping the infringement of these patents. In addition, there is a risk that the court will decide that these patents are not valid and that we do not have the right to stop the other party from using the inventions. There is also the risk that, even if the validity of these patents is upheld, the court will refuse to stop the other party on the ground that such other party's activities do not infringe our rights to these patents.

Furthermore, a third party may claim that we are using inventions covered by the third party's patent rights and may go to court to stop us from engaging in our normal operations and activities, including making or selling our product candidates. These lawsuits are costly and could affect our results of operations and divert the attention of managerial and technical personnel. There is a risk that a court would decide that we are infringing the third party's patents and would order us to stop the activities covered by the patents. In addition, there is a risk that a court will order us to pay the other party damages for having violated the other party's patents. The biotechnology industry has produced a proliferation of patents, and it is not always clear to industry participants, including us, which patents cover various types of products or methods of use. The coverage of patents is subject to interpretation by the courts, and the interpretation is not always uniform. If we are sued for patent infringement, we would need to demonstrate that our products or methods of use either do not infringe the patent claims of the relevant patent and/or that the patent claims are invalid, and we may not be able to do this. Proving invalidity, in particular, is difficult since it requires a showing of clear and convincing evidence to overcome the presumption of validity enjoyed by issued patents.

Because some patent applications in the U.S. may be maintained in secrecy until the patents are issued, patent applications in the U.S. and many foreign jurisdictions are typically not published until eighteen months after filing, and publications in the scientific literature often lag behind actual discoveries, we cannot be certain that others have not filed patent applications for technology covered by our issued patents or our pending applications or that we were the first to invent the technology. Our competitors have filed, and may in the future file, patent applications covering technology similar to ours. Any such patent application may have priority over our patent applications and could further require us to obtain rights to issued patents covering such technologies. If another party has filed a U.S. patent application on inventions similar to ours, we may have to participate in an interference proceeding declared by the PTO, to determine priority of invention in the U.S.. The costs of these proceedings could be substantial, and it is possible that such efforts would be unsuccessful, resulting in a loss of our United States patent position with respect to such inventions.

Some of our competitors may be able to sustain the costs of complex patent litigation more effectively than we can because they have substantially greater resources. In addition, any uncertainties resulting from the initiation and continuation of any litigation could have a material adverse effect on our ability to raise the funds necessary to continue our operations.

**Pending and future litigation, including product liability claims, private securities litigation, shareholder derivative suits and contract litigation, may adversely affect our financial condition and results of operations or liquidity.**

The development, manufacture and marketing of pharmaceutical products of the types that we produce entail an inherent risk of product liability claims. A number of factors could result in an unsafe condition or injury to a patient with respect to these or other products that we manufacture or sell, including inadequate disclosure of product-related risks or product-related information. In addition, we may be the subject of litigation involving contract disputes, shareholder derivative suites or private securities litigation. The outcome of litigation, particularly class action lawsuits, is difficult to assess or quantify. Plaintiffs in these types of lawsuits often seek recovery of very large or indeterminate amounts, including not only actual damages, but also punitive damages. The magnitude of the potential losses relating to these lawsuits may remain unknown for substantial periods of time. In addition, the cost to defend against any future litigation may be significant. Product liability claims, securities and commercial litigation and other litigation in the future, regardless of the outcome, could have a material adverse effect on our financial condition, results of operations or liquidity. We are currently involved in a class action litigation, the outcome of which is uncertain and we may be required to pay damages. This litigation is described on page 46 under the heading “Legal Proceedings.”

**We may not be successful in protecting our intellectual property and proprietary rights.**

Our success depends, in part, on our ability to obtain U.S. and foreign patent protection for our drug candidates and processes, preserve our trade secrets and operate our business without infringing the proprietary rights of third parties. Legal standards relating to the validity of patents covering pharmaceutical and biotechnological inventions and the scope of claims made under such patents are still developing and there is no consistent policy regarding the breadth of claims allowed in biotechnology patents. The patent position of a biotechnology firm is highly uncertain and involves complex legal and factual questions. We cannot assure you that any existing or future patents issued to, or licensed by, us will not subsequently be challenged, infringed upon, invalidated or circumvented by others. We cannot assure you that any patents will be issued from any of the patent applications owned by, or licensed to, us. Furthermore, any rights that we may have under issued patents may not provide us with significant protection against competitive products or otherwise be commercially viable.

Patents may have been granted to third parties or may be granted covering products or processes that are necessary or useful to the development of our drug candidates. If our drug candidates or processes are found to infringe upon the patents or otherwise impermissibly utilize the intellectual property of others, our development, manufacture and sale of such drug candidates could be severely restricted or prohibited. In such event, we may be required to obtain licenses from third parties to utilize the patents or proprietary rights of others. We cannot assure you that we will be able to obtain such licenses on acceptable terms, if at all. If we become involved in litigation regarding our intellectual property rights or the intellectual property rights of others, the potential cost of such litigation, regardless of the strength of our legal position, and the potential damages that we could be required to pay could be substantial.

**Risks related to our common stock**

**The market price of our common stock may be volatile and adversely affected by several factors.**

The market price of our common stock could fluctuate significantly in response to various factors and events, including:

- our ability to integrate operations, technology, products and services;
- our ability to execute our business plan;
- operating results below expectations;

- announcements concerning product development results, including clinical trial results, or intellectual property rights of others;
- litigation or public concern about the safety of our potential products;
- our issuance of additional securities, including debt or equity or a combination thereof, which will be necessary to fund our operating expenses;
- announcements of technological innovations or new products by us or our competitors;
- loss of any strategic relationship;
- industry developments, including, without limitation, changes in healthcare policies or practices or third-party reimbursement policies;
- economic and other external factors;
- period-to-period fluctuations in our financial results; and
- whether an active trading market in our common stock develops and is maintained.

In addition, the securities markets have from time to time experienced significant price and volume fluctuations that are unrelated to the operating performance of particular companies. These market fluctuations may also materially and adversely affect the market price of our common stock.

**We have not paid cash dividends in the past and do not expect to pay cash dividends in the foreseeable future. Any return on investment may be limited to the value of our common stock.**

We have never paid cash dividends on our common stock and do not anticipate paying cash dividends on our common stock in the foreseeable future. The payment of dividends on our capital stock will depend on our earnings, financial condition and other business and economic factors affecting us at such time as the board of directors may consider relevant. If we do not pay dividends, our common stock may be less valuable because a return on your investment will only occur if the common stock price appreciates.

**Our quarterly operating results may fluctuate significantly.**

We expect our operating results to be subject to quarterly fluctuations. Our net loss and other operating results will be affected by numerous factors, including:

- variations in the level of expenses related to our development programs;
- addition or termination of clinical trials;
- any intellectual property infringement lawsuit in which we may become involved;
- regulatory developments affecting our product candidates; and
- our execution of any collaborative, licensing or similar arrangements, and the timing of payments we may make or receive under these arrangements.

If our quarterly operating results fall below the expectations of investors or securities analysts, the price of our common stock could decline substantially. Furthermore, any quarterly fluctuations in our operating results may, in turn, cause the price of our common stock to fluctuate substantially.

**Provisions of our charter documents could discourage an acquisition of our company that would benefit our stockholders and may have the effect of entrenching, and making it difficult to remove, management.**

Provisions of our Certificate of Incorporation and By-laws may make it more difficult for a third party to acquire control of us, even if a change in control would benefit our stockholders. In particular, shares of our preferred stock may be issued in the future without further stockholder approval and upon such terms and conditions, and having such rights, privileges and preferences, as our Board of Directors may determine, including, for example, rights to convert into our common stock. The rights of the holders of our common stock will be subject to, and may be adversely affected by, the rights of the holders of any of our preferred stock that may be issued in the future. The issuance of our preferred stock, while providing desirable flexibility in connection with possible acquisitions and other corporate purposes, could have the effect of

making it more difficult for a third party to acquire control of us. This could limit the price that certain investors might be willing to pay in the future for shares of our common stock and discourage these investors from acquiring a majority of our common stock. Further, the existence of these corporate governance provisions could have the effect of entrenching management and making it more difficult to change our management.

We have adopted a shareholder rights plan, the purpose of which is, among other things, to enhance our board's ability to protect shareholder interests and to ensure that shareholders receive fair treatment in the event any coercive takeover attempt of our company is made in the future. The shareholder rights plan could make it more difficult for a third party to acquire, or could discourage a third party from acquiring, our company or a large block of our common stock.

**Failure to achieve and maintain effective internal controls could have a material adverse effect on our business.**

Effective internal controls are necessary for us to provide reliable financial reports. If we cannot provide reliable financial reports, our operating results could be harmed. All internal control systems, no matter how well designed, have inherent limitations. Therefore, even those systems determined to be effective can provide only reasonable assurance with respect to financial statement preparation and presentation. Based on our evaluation, our management concluded that there is a material weakness in our internal control over financial reporting for the year ended December 31, 2013. The material weakness identified did not result in the restatement of any previously reported financial statements or any related financial disclosure, nor does management believe that it had any effect on the accuracy of our financial statements for the year ended December 31, 2013. A material weakness is a deficiency, or a combination of control deficiencies, in internal control over financial reporting such that there is a reasonable possibility that a material misstatement of our annual or interim financial statements will not be prevented or detected on a timely basis. The material weakness relates to the monitoring and review of work performed by an accounting consultant who was formerly our Chief Financial Officer in the preparation of audit and financial statements, footnotes and financial data provided to our registered public accounting firm in connection with the annual audit. All of our financial reporting is currently carried out by our accounting consultant. This lack of accounting staff results in a lack of segregation of duties and accounting technical expertise necessary for an effective system of internal control. As soon as our finances allow, we will hire sufficient accounting staff and implement appropriate procedures for monitoring and review of work performed by our accounting consultant. Because of the material weakness described above, management concluded that, as of December 31, 2013, our internal control over financial reporting was not effective based on the criteria established in Internal Control — Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO").

While we continue to evaluate and improve our internal controls, we cannot be certain that these measures will ensure adequate controls over our financial processes and reporting in the future. Any failure to implement required new or improved controls, or difficulties encountered in their implementation, could harm our operating results or cause us to fail to meet our reporting obligations.

Failure to achieve and maintain an effective internal control environment could cause investors to lose confidence in our reported financial information, which could have a material adverse effect on our stock price. Failure to comply with Section 404 could also potentially subject us to sanctions or investigations by the Securities and Exchange Commission ("SEC") or other regulatory authorities.

**Our ability to use our net operating loss carry forwards may be subject to limitation.**

Generally, a change of more than 50% in the ownership of a company's stock, by value, over a three-year period constitutes an ownership change for U.S. federal income tax purposes. An ownership change may limit our ability to use our net operating loss carryforwards attributable to the period prior to the change. As a result, if we earn net taxable income, our ability to use our pre-change net operating loss carryforwards to offset U.S. federal taxable income may become subject to limitations, which could potentially result in increased future tax liability for us. At December 31, 2013, we had net operating loss carryforwards aggregating approximately $189 million.

**An investment in our common stock may be less attractive because it is not traded on a recognized public market.**

Our common stock has traded on the OTC Bulletin Board, or OTCBB since June 5, 2006 and the OTCQB since July 18, 2012. The OTCQB is viewed by most investors as a less desirable, and less liquid, marketplace. As a result, an investor may find it more difficult to purchase, dispose of or obtain accurate quotations as to the value of our common stock.

Our common stock is subject to Rules 15g-1 through 15g-9 under the Exchange Act, which imposes certain sales practice requirements on broker-dealers who sell our common stock to persons other than established customers and "accredited investors" (as defined in Rule 501(c) of the Securities Act). For transactions covered by this rule, a broker-dealer must make a special suitability determination for the purchaser and have received the purchaser's written consent to the transaction prior to the sale. This rule adversely affects the ability of broker-dealers to sell our common stock and purchasers of our common stock to sell their shares of our common stock.

Additionally, our common stock is subject to SEC regulations applicable to "penny stock." Penny stock includes any non-NASDAQ equity security that has a market price of less than $5.00 per share and does not trade on a national exchange, subject to certain exceptions. The regulations require that prior to any non-exempt buy/sell transaction in a penny stock, a disclosure schedule proscribed by the SEC relating to the penny stock market must be delivered by a broker-dealer to the purchaser of such penny stock. This disclosure must include the amount of commissions payable to both the broker-dealer and the registered representative and current price quotations for our common stock. The regulations also require that monthly statements be sent to holders of penny stock that disclose recent price information for the penny stock and information of the limited market for penny stocks. These requirements adversely affect the market liquidity of our common stock.

**Ownership of our shares is concentrated in the hands of a few investors which could limit the ability of our other stockholders to influence the direction of the company.**

As calculated by SEC rules of beneficial ownership, SCO Capital Partners LLC and affiliates; Larry N. Feinberg (Oracle Partners LP, Oracle Institutional Partners LP and Oracle Investment Management Inc.); and Lake End Capital LLC each beneficially owned approximately 71.5%, 12.1%, and 6.8%, respectively, of our common stock on an as converted basis as of December 3, 2014. Accordingly, they collectively have the ability to significantly influence or determine the election of all of our directors or the outcome of most corporate actions requiring stockholder approval. They may exercise this ability in a manner that advances their best interests and not necessarily those of our other stockholders.

**Risks relating to this offering**

**We will have broad discretion over the use of the net proceeds from this offering.**

We intend to use the net proceeds for the clinical development and validation of the Licensed technologies, for the continued commercialization of MuGard, ProctiGard, and for the development of follow-on portfolio products, for general corporate purposes, including working capital, and for the up-front payment of $1,000,000 for Licensor exclusive license. Our judgment may not result in positive returns on your investment and you will not have an opportunity to evaluate the economic, financial, or other information upon which we base our decisions.

**Future sales by our stockholders may adversely affect our stock price and our ability to raise funds in new stock offerings.**

Sales of our common stock in the public market following this offering could lower the market price of our common stock. Sales may also make it more difficult for us to sell equity securities or equity-related securities in the future at a time and price that our management deems acceptable or at all. Of the 536,089 shares of common stock outstanding as of December 3, 2014, all shares are, or will be, freely tradable without restriction, unless held by our "affiliates." Some of these shares may be resold under Rule 144. The sale of the 7,233,404 shares issuable upon conversion of our outstanding Series A Preferred Stock, the sale of the 5,000,000 shares issuable upon exchange of our outstanding Series B Preferred Stock and 577,756 shares issuable upon exercise of outstanding warrants could also lower the market price of our common stock.

**You will experience immediate and substantial dilution as a result of this offering and may experience additional dilution in the future.**

You will incur immediate and substantial dilution as a result of this offering. After giving effect to the sale by us of 3,500,000 shares and 3,500,000 warrants offered in this offering at a public offering price of $4.00 per share and $0.01 per warrant, and after deducting underwriting discount and estimated offering expenses payable by us, investors in this offering can expect an immediate dilution of $4.45 per share. In addition, in the past, we issued options and warrants to acquire shares of common stock. To the extent these options are ultimately exercised, you will sustain future dilution. We may also acquire or license other technologies or finance strategic alliances by issuing equity, which may result in additional dilution to our stockholders. In addition, pursuant to the license agreement with Licensor, upon FDA approval of a drug derived from the Licensor's proprietary SDF process, we will issue additional shares of common stock to Licensor.

**Risks Related to the Reverse Split**

**On October 24, 2014, we effected a l-for-50 reverse stock split of our outstanding common stock in order to meet the minimum bid price requirement of the NASDAQ Capital Market. There can be no assurance that we will be able to continue to comply with the minimum bid price requirement of the NASDAQ Capital Market, in which case this offering may not be completed.**

The reverse stock split of our outstanding common stock has increased the market price of our common stock to exceed the minimum bid price requirement of the NASDAQ Capital Market. However, the effect of a reverse stock split upon the market price of our common stock cannot be predicted with certainty, and the results of reverse stock splits by companies in similar circumstances have been varied. There can be no assurance that the market price of our common stock following the reverse stock split will remain at the level required for continuing compliance with that requirement. It is not uncommon for the market price of a company's common stock to decline in the period following a reverse stock split. If the market price of our common stock declines following the reverse stock split, the percentage decline may be greater than would occur in the absence of a reverse stock split. In any event, other factors unrelated to the number of shares of our common stock outstanding, such as negative financial or operational results, could adversely affect the market price of our common stock and jeopardize our ability to meet or maintain the NASDAQ Capital Market's minimum bid price requirement. In addition to specific listing and maintenance standards, the NASDAQ Capital Market has broad discretionary authority over the initial and continued listing of securities, which it could exercise with respect to the listing of our common stock.

**There can be no assurance that we will be able to comply with continued listing standards of the NASDAQ Capital Market.**

We cannot assure you that we will be able to continue to comply with the minimum bid price and the other standards that we are required to meet in order to maintain a listing of our common stock on the NASDAQ Capital Market. Our failure to continue to meet these requirements may result in our common stock being delisted from the NASDAQ Capital Market.

**The reverse stock split may decrease the liquidity of the shares of our common stock.**

The liquidity of the shares of our common stock may be affected adversely by the reverse stock split given the reduced number of shares that are outstanding following the reverse stock split, especially if the market price of our common stock does not increase as a result of the reverse stock split. In addition, the reverse stock split increased the number of stockholders who own odd lots (less than 100 shares) of our common stock, creating the potential for such stockholders to experience an increase in the cost of selling their shares and greater difficulty effecting such sales.

**Following the reverse stock split, the resulting market price of our common stock may not attract new investors, including institutional investors, and may not satisfy the investing requirements of those investors. Consequently, the trading liquidity of our common stock may not improve.**

Although we believe that a higher market price of our common stock may help generate greater or broader investor interest, there can be no assurance that the reverse stock split will result in a share price that will attract new investors, including institutional investors, In addition, there can be no assurance that the market price of our common stock will satisfy the investing requirements of those investors, As a result, the trading liquidity of our common stock may not necessarily improve.

## USE OF PROCEEDS

We estimate that the net proceeds from our issuance and sale of shares of our common stock and warrants in this offering will be approximately $12.6 million, at a public offering price of $4.00 per share and $0.01 per warrant, after deducting underwriting discount and estimated offering expenses payable by us. If the underwriters exercise their over-allotment option in full, we estimate that the net proceeds from this offering will be approximately $14.5 million. In addition, if all of the warrants offered pursuant to this prospectus are exercised in full for cash, we will receive approximately an additional $17.5 million in cash. However, the warrants contain a cashless exercise provision that permit exercise of warrants on a cashless basis at any time where there is no effective registration statement under the Securities Act of 1933, as amended covering the issuance of the underlying shares.

A $1.00 increase or decrease in the public offering price of $4.00 per share would increase or decrease the net proceeds from this offering by approximately $3.2 million, assuming that the number of shares and warrants offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting the estimated underwriting discounts and commissions.

We intend to use the net proceeds from this offering for the clinical development and validation of the Licensor technologies, for the continued commercialization of MuGard, ProctiGard, and for the development of follow-on portfolio products, for general corporate purposes including working capital, and for the up-front $1.0 million payment for Licensor exclusive license.

This expected use of net proceeds from this offering represents our intentions based upon our current plans and business conditions. The amounts and timing of our actual expenditures may vary significantly depending on numerous factors. As a result, our management will retain broad discretion over the allocation of the net proceeds from this offering. We may find it necessary or advisable to use the net proceeds from this offering for other purposes, and we will have broad discretion in the application of net proceeds from this offering.

Pending our use of the net proceeds from this offering, we intend to invest the net proceeds in a variety of capital preservation investments, including short-term, investment-grade, interest-bearing instruments and U.S. government securities.

## DILUTION

If you purchase shares and warrants in this offering your interest will be diluted immediately to the extent of the difference between the public offering price of $4.00 per share and the pro forma as adjusted net tangible book value per share of our common stock immediately following this offering.

Our net tangible book value as of September 30, 2014 was approximately $(17.4) million, or approximately $(32.46) per share. Net tangible book value per share represents our total tangible assets less total tangible liabilities, divided by the number of shares of common stock outstanding as of September 30, 2014.

Net tangible book value dilution per share to new investors represents the difference between the amount per share and warrant paid by purchasers in this offering and the pro forma as adjusted net tangible book value per share of common stock immediately after completion of this offering. After giving effect to (i) our sale of shares and warrants in this offering at the public offering price of $4.00 per share, (ii) the conversion of outstanding shares of Series A Preferred Stock, dividends payable on Series A Preferred Stock and interest on dividends payable into 8,885,129 shares of common stock upon consummation of this offering, (iii) the exchange of outstanding shares of Series B Preferred Stock, including shares of Series B Preferred Stock issued upon conversion of dividends payable on Series B Preferred Stock, interest on dividends payable and liquidated damages for 6,763,530 shares of common stock upon consummation of this offering and (iv) 1,000,000 shares of common stock issued to Plasma Technologies, LLC for license technology, our pro forma as adjusted net tangible book value as of September 30, 2014 would have been $9.3 million, or $(0.45) per share. This represents an immediate increase in net tangible book value of $32.91 per share to existing stockholders and an immediate dilution in net tangible book value of $4.45 per share to purchasers of shares in this offering, as illustrated in the following table:

| | | |
|---|---|---|
| Public offering price per share | | $ 4.00 |
| Net tangible book value per share as of September 30, 2014 | $ (32.46) | |
| Increase in net tangible book value per share attributable to new investors | $ 32.91 | |
| Pro forma, as adjusted net tangible book value per share as of September 30, 2014, after this offering | | $ (0.45) |
| Dilution per share to new investors in the offering | | $ 4.45 |

## PRICE RANGE OF OUR COMMON STOCK

### Market Information

Our common stock is traded on the OTC Bulletin Board, or OTCQB, under the trading symbol PTBI. From October 24, 2014 until November 21, 2014 our common stock was traded under the symbol ACCPD. Prior to October 24, 2014, our common stock was traded under the symbol ACCP. On October 24, 2014 we changed our corporate name and we effected a 1 for 50 reverse stock split.

The following table sets forth, for the periods indicated, the high and low closing prices as reported by OTCQB for our common stock for 2014 year-to-date and fiscal years 2013 and 2012. The OTCQB quotations reflect inter-dealer prices, without retail mark-up, mark-down or commission and may not represent actual transactions.

| | Common Stock | |
|---|---|---|
| | High | Low |
| **Fiscal Year 2014 Year-to-date** | | |
| First quarter | $ 29.50 | $ 12.50 |
| Second quarter | 27.00 | 14.00 |
| Third quarter | 17.50 | 11.50 |
| Fourth quarter (through December 18, 2014 | 13.50 | 5.83 |
| **Fiscal Year Ended December 31, 2013** | | |
| First quarter | $ 30.00 | $ 12.50 |
| Second quarter | 27.00 | 19.00 |
| Third quarter | 25.00 | 16.00 |
| Fourth quarter | 21.00 | 11.50 |
| **Fiscal Year Ended December 31, 2012** | | |
| First quarter | $ 22.00 | $ 49.00 |
| Second quarter | 61.50 | 22.50 |
| Third quarter | 36.50 | 16.00 |
| Fourth quarter | 22.50 | 11.00 |

### Holders

The number of record holders of our common stock at December 3, 2014 was approximately 6,700.

## DIVIDEND POLICY

We have never declared or paid any cash dividends on our common stock and we do not anticipate paying any cash dividends in the foreseeable future on our common stock. The payment of dividends on common stock, if any, in the future is within the discretion of our Board of Directors and will depend on its earnings, capital requirements and financial condition and other relevant facts. We currently intend to retain all future earnings, if any, to finance the development and growth of its business.

The holders of Series A Preferred Stock are entitled to receive dividends of 6% per annum on their shares of Series A Preferred Stock. The dividends are payable by us semi-annually and may be paid by us either in cash, or if certain conditions are met, at our option, in shares of our common stock. To be eligible to pay dividends in shares of common stock, among other things, there must be in place a registration statement pursuant to which the holders of the Series A Preferred Stock are permitted to utilize the prospectus thereunder to resell all of the shares of common stock issuable in relation to the Series A Preferred Stock.

The holders of Series B Preferred Stock are entitled to receive dividends of 12% per annum on their shares of Series B Preferred Stock. The dividends are payable by us quarterly and may be paid by us either in cash, or if certain conditions are met, as determined by election of the majority holders, in cash or increase in stated value (or a combination).

## CAPITALIZATION

The following table presents a summary of our cash and cash equivalents and capitalization as of September 30, 2014:

- on an actual basis: and
- on a pro forma as adjusted basis to:
  - (i) give effect to the sale of shares of common stock and warrants in this offering at the public offering price of $4.00 per share and $0.01 warrant less underwriting discounts, commissions and estimated offering expenses payable by us;
  - (ii) the conversion of outstanding shares of Series A Preferred Stock, including shares of Series B Preferred Stock issued upon conversion of dividends payable on Series A Preferred Stock and interest on dividends payable into 8,885,129 shares of common stock upon consummation of this offering;
  - (iii) the exchange of outstanding shares of Series B Preferred Stock, dividends payable on Series B Preferred Stock, interest on dividends payable and liquidated damages for 6,763,530 shares of common stock at the liquidating preference upon consummation of this offering;
  - (iv) give effect to the issuance of 1,000,000 shares of common stock to Plasma Technologies, LLC for purchased licensed technology.

You should read the following table in conjunction with "Use of Proceeds," "Selected Financial Information," "Management's Discussion and Analysis of Financial Condition and Results of Operations" and historical financial statements and the related notes thereto included in this prospectus.

| | As of September 30, 2014 (in thousands except share data) | |
|---|---|---|
| | Actual | Pro forma as adjusted |
| Dividends payable – Series A Preferred Stock | $ 6,607 | $ — |
| Dividends payable – Series B Preferred Stock | 2,670 | — |
| Derivative liability – preferred stock | 13,000 | — |
| Long-term deferred revenue (including current portion) | 5,621 | 5,621 |
| Stockholders equity (deficit): | | |
| Convertible preferred stock Series A – $.01 par value; authorized 2,000,000 shares; 2,893.3617 shares issued and outstanding, actual; no shares issued and outstanding, pro forma as adjusted | — | — |
| Convertible preferred stock Series B – $.01 par value; authorized 2,000,000 shares; 1,000 shares issued and outstanding, actual; no shares issued and outstanding; pro forma as adjusted | — | — |
| Common stock – $.01 par value; authorized 200,000,000 shares; 534,589 shares issued and outstanding, actual; 20,683,248 shares issued and outstanding, pro forma as adjusted | 6 | 208 |
| Additional paid-in capital | 253,090 | 229,583 |
| Treasury stock, at cost 4 shares | (4) | (4) |
| Accumulated deficit | (283,447) | (270,447) |
| Total stockholders' equity (deficit) | (30,355) | 9,340 |
| Total capitalization | $ (2,457) | $ 14,961 |

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

The following discussion should be read in conjunction with our consolidated financial statements and related notes included in this prospectus.

### OVERVIEW

We are an emerging biopharmaceutical company focused on developing a range of pharmaceutical products primarily based upon our nanopolymer chemistry technologies and technology recently licensed from Licensor. We currently have one marketed product licensed in the U.S., Europe, China, Australia, New Zealand and South Korea. We also have additional products and platform technologies in various stages of development where we are seeking partners to continue development and/or to license the technology.

**Products and Product Candidates**

| Compound | Originator | Technology | Indication | Clinical Stage |
|---|---|---|---|---|
| MuGard® | PlasmaTech | Mucoadhesive liquid | Mucositis | — Launched in U.S.<br>— Licensed to AMAG: U.S. rights<br>— Licensed to Norgine – European Union rights<br>— Licensed to RHEI: China rights and other SE Asia countries<br>— Licensed to Hanmi: South Korea rights |
| ProctiGard ™ | PlasmaTech | Mucoadhesive hydrogel technology | Radiation proctitis | FDA clearance 7/22/14 |
| LexaGard™ | PlasmaTech | Mucoadhesive hydrogel technology | Inflammatory and ulcerative conditions of the esophagus | Filings being reviewed at FDA |
| Alpha-1 Antitrypsin (AAT) | Licensor | Proprietary biological processing | Various | Process validation |
| Intravenous immune globulin (IVIG) | Licensor | Proprietary biological processing | Various | Process validation |

**Critical Accounting Policies and Estimates**

The preparation of our consolidated financial statements in conformity with accounting principles generally accepted in the U.S. requires us to make estimates and assumptions that affect the reported amounts of assets and liabilities, disclosure of contingent assets and liabilities at the date of the financial statements and the reported amount of revenues and expenses during the reported period. In applying our accounting principles, we must often make individual estimates and assumptions regarding expected outcomes or uncertainties. As you might expect, the actual results or outcomes are often different than the estimated or assumed amounts. These differences are usually minor and are included in our consolidated financial statements as soon as they are known. Our estimates, judgments and assumptions are continually evaluated based on available information and experience. Because of the use of estimates inherent in the financial reporting process, actual results could differ from those estimates.

*Receivables*

Receivables are reported in the balance sheets at the outstanding amount net of an allowance for doubtful accounts. We continually evaluate the creditworthiness of our customers and their financial condition and generally do not require collateral. The allowance for doubtful accounts is based upon reviews of specific

customer balances, historic losses, and general economic conditions. As of December 31, 2013 and 2012, no allowance was recorded as all accounts were considered collectible.

*Derivative liability*

In order to calculate the Derivative liability — preferred stock and warrants, we used the Monte Carlo simulation to estimate future stock prices. The use of valuation techniques requires us to make various key assumptions for inputs into the model, including assumptions about the expected future volatility of the price of our stock. In estimating the fair value at the end of each balance sheet date, we based our selected volatility on the one-year historic volatility of our stock as we believe this is most representative of the expected volatility in the near future for us.

*Product sales and allowances*

We initially sold MuGard to wholesaler, specialty, and retail pharmacies. We began shipping to customers in September 2010 through June 6, 2013 when we licensed MuGard to AMAG. Since June 6, 2013 we received royalties from AMAG from their sales of MuGard, and no longer record direct sales. We recognized revenue for MuGard product sales at the time title transferred to our customers, which occurred at the time product was shipped to our customers.

We previously recognized product sales allowances as a reduction of product sales in the same period the related revenue was recognized. Product sales allowances were based on amounts owed or to be claimed on the related sales. These estimates take into consideration the terms of our agreements with customers, rebates or discounts taken. If actual future results varied from our estimates, we may have needed to adjust these estimates, which could have had an effect on product sales and earnings in the period of adjustment. Our product sales allowances included:

- Wholesaler, Specialty, and Retail Pharmacy Discounts — we offered contractually determined discounts to certain wholesale distributors and specialty and retail pharmacies that purchase directly from us. These discounts are either taken off the invoice at the time of shipment or paid to the customer on a monthly or quarterly basis.
- Prompt Pay Discounts — we offered cash discounts to our customers, generally 2% of the sales price, as an incentive for prompt payment. Based on our experience many of the customers comply with the payment terms to earn the cash discount.
- Patient Discount Programs — we offered discount card programs in which patients receive certain discounts off their prescription.
- Managed Care Rebates — we offered discounts under contracts with certain managed care providers who do not purchase directly from us.

We believe our estimates related to gross-to-net sales adjustments for MuGard do not have a high degree of estimation complexity or uncertainty, as the related amounts were settled within a short period of time.

*License Revenues and Royalties*

Our revenues are generated from licensing, research and development agreements, royalties and product sales. We recognize revenue in accordance with SEC Staff Accounting Bulletin No. 104 (SAB 104), *Revenue Recognition*. License revenue is recognized over the remaining life of the underlying patent or period of performance obligation. Research and development revenues are recognized as services are performed. Royalties are recognized in the period of sales.

*Stock Based Compensation Expense*

We account for stock based compensation expense in accordance with FASB ASC 718, *Stock Based Compensation*. We have several stock-based compensation plans under which incentive and non-incentive qualified stock options and restricted shares may be granted to employees, directors and consultants. We measure the cost of the employee/director/consultant services received in exchange for an award of equity instruments based on the grant date fair value of the award. We use the Black-Scholes option pricing model to value our options which includes expected volatility, risk-free interest rate, dividend yield and estimated expected term.

Stock-based compensation expense recognized for the years ended December 31, 2013 and 2012 was approximately $439,000 and $390,000, respectively.

**Results of Operations**

**Comparison of Nine Months Ended September 30, 2014 with Nine Months Ended September 30, 2013**

Product sales of MuGard in the United States totaled $1,542,000 for the first nine months of 2013. We did not have any sales of MuGard in 2014 since MuGard was licensed to AMAG on June 6, 2013. We are currently receiving royalties from AMAG for sale of MuGard.

Our licensing revenue for the first nine months of 2014 was $448,000 as compared to $290,000 for the same period of 2013, an increase of $158,000. We recognize licensing revenue over the period of the performance obligation under our licensing agreements.

We recorded royalty revenue for MuGard of $243,000 for first nine months of 2014 and $48,000 royalties in the same period of 2013, an increase of $195,000. We licensed MuGard to AMAG on June 6, 2013 and currently receive quarterly royalties from AMAG under our agreement.

Total research and development spending for the first nine months of 2014 was $298,000, as compared to $756,000 for the same period of 2013, a decrease of $458,000. The decrease in research and development expenses was primarily due to:

- decreased clinical development with trials for MuGard ($298,000);
- decreased salary and related costs ($231,000) from reduced scientific staff;
- offset by increased scientific consulting expense ($248,000); and
- other net decreases in research spending ($177,000).

Product costs for MuGard in the United States were $125,000 for the first nine months of 2013. There were no product costs in 2014 due to no sales of MuGard by us.

Total selling, general and administrative expenses were $3,055,000 for the first nine months of 2014, as compared to $4,117,000 for the same period of 2013, a decrease of $1,062,000. The decrease in expenses was due primarily to the following:

- decreased net MuGard product selling expenses ($960,000) which includes an increase of $212,000 of MuGard product returns;
- decreased salary and related costs ($552,000) from reduced general and administrative staff;
- decreased legal fees ($402,000); offset by
- net increase other general and administrative expenses ($132,000); and
- increased stock compensation expense for options granted to employees, officers, directors and consultants ($720,000), options were granted in 2014 and no options were granted in 2013.

Depreciation and amortization was $2,000 for the first nine months of 2014 as compared to $2,000 for the same period in 2013.

Total operating expenses for the first nine months of 2014 were $3,355,000 as compared to total operating expenses of $5,000,000 for the same period of 2013, a decrease of $1,645,000 for the reasons listed above.

Interest and miscellaneous income was $45,000 for the first nine months of 2014 as compared to $215,000 for the same period of 2013, a decrease of $170,000. Miscellaneous income was higher in 2013 due to sale of certain platinum inventory and to write-offs of certain accounts payables.

Interest and other expense was $406,000 for the first nine months of 2014 as compared to $182,000 in the same period of 2013, an increase of $224,000. The interest represents interest accrued on unpaid dividends. No dividends have been paid in 2013 or 2014.

We recorded a gain related to warrants classified as derivative liabilities of $140,000 for the first nine months of 2013. The warrants expired in November 2013 and February 2014 so there was no derivative liability or gain/loss during the first nine months of 2014.

We recorded a loss for the derivative liability related to preferred stock of $11,810,000 for the first nine months of 2014 and a gain of $8,471,000 for the same period of 2013. We recorded a derivative liability per the requirements of accounting guidance due to the possibility of resetting the conversion price of our Series A Preferred Stock if we sold our common stock at a price below the original price.

Preferred stock dividends of $2,191,000 were accrued for the first nine months of 2014 and $2,202,000 for the same period of 2013, a decrease of $11,000. Dividends are due semi-annually in either cash or common stock for the Series A Preferred Stock and due quarterly in either cash or preferred stock for the Series B Preferred Stock.

Net loss allocable to common stockholders for the first nine months of 2014 was $17,026,000, or a $32.46 basic and diluted loss per common share as compared to a net income of $3,322,000, or a $6.61 basic and $6.55 diluted income per common share, for the same period in 2013, an increased loss of $20,348,000.

**Comparison of Years Ended December 31, 2013 and 2012**

Product sales of MuGard in the U.S. totaled $1,529,000 for the year ended December 31, 2013 as compared with $2,865,000 for the same period of 2012, a decrease of $1,336,000. On June 6, 2013, MuGard was licensed to AMAG and revenue is now recorded as royalty income.

Our licensing revenue for the year ended December 31, 2013 was $435,000 as compared to $1,446,000 for the same period of 2012, a decrease of $1,011,000. We recognize licensing revenue over the period of the performance obligation under our licensing agreements. In the first quarter of 2012, we finalized the negotiations for the termination of the license from our European partner for MuGard and recognized all of the previously received license fees ($706,000) that were recorded in deferred revenue and a $500,000 termination fee.

We recorded royalty revenue for MuGard for the year ended December 31, 2013 of $78,000 as compared to $93,000 for the same period of 2012, a decrease of $15,000. Prior to the license of MuGard in the U.S. to AMAG on June 6, 2013 we recorded product sales for MuGard and no royalty revenue. We recorded royalty revenue for MuGard in Europe of $93,000 for the year ended December 31, 2012 and none in the same period of 2013. In the first quarter of 2012, we finalized the negotiations for the termination of the license to our European partner for MuGard.

Total research and development spending for the year ended December 31, 2013 was $884,000, as compared to $2,010,000 for the same period of 2012, a decrease of $1,126,000. The net decrease in research and development expenses was primarily due to:

- decreased salary and related costs ($433,000) from reduced scientific staff;
- decreased clinical development due to completed trials for MuGard, ProLindac and Thiarabine ($433,000);
- decreased laboratory costs due to the closing of our laboratory ($90,000);
- decreased stock compensation expense from lower expense of option grants for research and development employees ($62,000); and
- other net decreases in research spending ($108,000).

Product costs for MuGard in the U.S. were $125,000 for the year ended December 31, 2013 as compared to $267,000 for the same period in 2012, a decrease of $142,000. On June 6, 2013, MuGard was licensed to AMAG and product costs after that date are incurred by AMAG.

Total selling, general and administrative expenses were $4,834,000 for the year ended December 31, 2013, as compared to $6,024,000 for the same period of 2012, a decrease of $1,190,000. The net decrease in expenses was due primarily to the following:

- decreased MuGard product selling expenses ($1,238,000);
- decreased salary and related costs ($415,000) from reduced general and administrative salaries and staff;
- lower investor relations expenses ($102,000);
- increased legal fees ($315,000);
- increased general business consulting expenses for MuGard licensing and transition costs ($147,000); and
- increased net other general and administrative expenses ($103,000).

Depreciation and amortization was $3,000 for the year ended December 31, 2013 as compared to $419,000 for the same period in 2012, a decrease of $416,000. Amortization expense related to intangible assets was $362,000 in 2012 and was fully amortized. Depreciation was $54,000 lower in 2013 due to the closing of our lab in Dallas and the sale of our furniture and equipment.

Total operating expenses for the year ended December 31, 2013 were $5,846,000 as compared to total operating expenses of $8,720,000 for the same period of 2012, a decrease of $2,874,000 for the reasons listed above.

Interest and miscellaneous income was $251,000 for the year ended December 31, 2013 as compared to $242,000 for the same period of 2012, an increase of $9,000. Miscellaneous income was higher in 2013 due to sale of certain platinum and monomer inventory and write-offs and settlements of certain accounts payables.

Interest and other expense was $279,000 for the year ended December 31, 2013 as compared to $608,000 in the same period of 2012, a decrease of $329,000. The decrease in interest and other expense was due to the pay-off of the secured promissory note of $2.75 million in November 2012.

We recorded a one-time expense of $2,316,000 in the year ended December 31, 2012 for amendment agreements for 91,646 currently outstanding warrants which extended the expiration dates of such warrants to February 16, 2015 for 76,370 warrants; to October 24, 2015 for 7,728 warrants; and to December 6, 2015 for 7,547 warrants. The holders of such warrants include unaffiliated warrant holders as well as SCO Capital Partners LLC, Lake End Capital LLC and Beach Capital LLC. Such holders may be deemed to be affiliates of Jeffrey B. Davis our Director and Consultant and Steven H. Rouhandeh, our Chairman, respectively. The warrants that were amended were for the purchase of an aggregate of 91,646 shares of our common stock. In connection with the amendments, the holders of such warrants agreed to waive any damages that they may have incurred relating to our inability to register the shares of common stock issuable upon exercise of the warrants, other than liquidated damages that may have already accrued relating to such inability to register such shares.

We recorded a gain related to warrants classified as derivative liabilities of $271,000 for the year ended December 31, 2013 as compared to a gain of $1,236,000 for the same period of 2012. We recorded a derivative for warrants when the fair value of the warrants that were issued with our Series A Preferred Stock were reclassified from equity to liabilities per the requirements of accounting guidance as a result of the repricing feature. These warrants expired in February 2014.

We recorded a gain for the derivative liability related to preferred stock of $8,010,000 for the year ended December 31, 2013 and a loss of $4,770,000 for the same period of 2012. We recorded a derivative per the requirements of accounting guidance due to the possibility of resetting the conversion price of our Series A Preferred Stock if we sold our common stock at a price below the original price.

Preferred stock dividends of $2,898,000 were accrued for the year ended December 31, 2013 and $1,999,000 for the same period of 2012, an increase of $899,000 due to the issuance of the Series B Preferred Stock. Dividends are due semi-annually in either cash or common stock for the Series A Preferred Stock and due quarterly in either cash or preferred stock for the Series B Preferred Stock.

Net income allocable to common stockholders for the year ended December 31, 2013 was $1,551,000, or a $3.07 basic income per common share and a $3.04 diluted income per common share as compared to a net loss of $12,531,000, or a $25.91 basic and diluted loss per common share, for the same period in 2012, an increased income of $14,082,000.

**Liquidity and Capital Resources**

We have funded our operations primarily through private sales of common stock, preferred stock, convertible notes and through licensing agreements. Our principal source of liquidity is cash and cash equivalents. Licensing payments and royalty revenues provided limited funding for operations during the period ended September 30, 2014. As of September 30, 2014, our cash and cash equivalents were $165,000 and our net cash expenditures for the period ended September 30, 2014, was approximately $30,000 per month. As of September 30, 2014, our working capital deficit was $12,372,000. Our working capital deficit at September 30, 2014 represented an increase of $3,986,000 as compared to our working capital deficit as of December 31, 2013 of $8,386,000. The increase in the working capital deficit at September 30, 2014 reflects nine months of net operating costs and changes in current assets and liabilities, partially offset by the license fee from Hanmi and $250,000 from the Grid Note (see below).

On December 1, 2014, we entered into a second Unsecured Grid Note, for up to $250,000 with SCO. As of December 3, 2014 we have drawn a total of $150,000. The interest rate is 8% per annum and the maturity date is November 30, 2015 unless a financing of at least $5,000,000 occurs, in which event the note is required to be paid in full.

On September 10, 2014, we entered into an Unsecured Grid Note, for up to $250,000 with SCO. As of December 3, 2014 we have drawn a total of $250,000. The interest rate is 8% per annum and the maturity date is August 31, 2015 unless a financing of at least $5,000,000 occurs, in which event the note is required to be paid in full.

On September 22, 2014, we entered into an exclusive, world-wide licensing agreement with Licensor to obtain rights to utilize and to sub-license to other pharmaceuticals firms, its recently patented methods for the extraction of therapeutic biologics from human plasma.

Under the terms of the licensing agreement, we will pay a license fee of $5 million in a combination of cash and common stock subject to this offering, a regulatory approval milestone payment in common shares upon the first FDA regulatory approval of a drug derived from the Licensor's proprietary SDF process, and a tiered royalty on annual net sales of plasma fractions produced with Licensor's proprietary SDF process.

As of December 3, 2014, we did not have enough capital to achieve our long-term goals. If we raise additional funds by selling equity securities, the relative equity ownership of our existing investors will be diluted and the new investors could obtain terms more favorable than previous investors. A failure to obtain necessary additional capital in the future could jeopardize our operations and our ability to continue as a going concern.

We have incurred negative cash flows from operations since inception, and have expended, and expect to continue to expend in the future, substantial funds to complete our planned product development efforts. Since inception, our expenses have significantly exceeded revenues, resulting in an accumulated deficit as of September 30, 2014 of $283,447,000. We expect that our capital resources, royalties from MuGard and expected receipts due under our license agreements will be adequate to fund our current level of operations into the first quarter of 2015. However, our ability to fund operations over this time could change significantly depending upon changes to future operational funding obligations or capital expenditures. As a result, we may be required to seek additional financing sources within the next twelve months. We cannot provide assurance that we will ever be able to generate sufficient product revenue or royalty revenue to achieve profitability on a sustained basis or at all.

Since our inception, we have devoted our resources primarily to fund our research and development programs. We have been unprofitable since inception and to date have received limited revenues from the sale of products. We expect to incur losses for the next several years as we continue to invest in product research and development, preclinical studies, clinical trials and regulatory compliance.

We plan to expend substantial funds to conduct research and development programs, preclinical studies and clinical trials of potential products, including research and development with respect to our acquired and developed technology. Our future capital requirements and adequacy of available funds will depend on many factors, including:

- the successful development and commercialization of MuGard™ and our other product candidates;
- the successful development and commercialization of products derived from our recent license of Licensor technologies;
- the ability to establish and maintain collaborative arrangements with corporate partners for the research, development and commercialization of products;
- continued scientific progress in our research and development programs;
- the magnitude, scope and results of preclinical testing and clinical trials;
- the costs involved in filing, prosecuting and enforcing patent claims;
- the costs involved in conducting clinical trials;
- competing technological developments;
- the cost of manufacturing and scale-up;
- the ability to establish and maintain effective commercialization arrangements and activities; and
- successful regulatory filings.

We have devoted substantially all of our efforts and resources to research and development conducted on our own behalf. The following table summarizes research and development spending by project category, which spending includes, but is not limited to, payroll and personnel expense, lab supplies, preclinical expense, development cost, clinical trial expense, outside manufacturing expense and consulting expense:

| (in thousands) | Twelve Months ended December 31, | | February 24, 1988 (Inception) To |
|---|---|---|---|
| **Project** | **2013** | **2012** | **Date[1]** |
| MuGard | $ 725 | $ 1,033 | $ 5,015 |
| Others[2] | 159 | 977 | 39,988 |
| Total | $ 884 | $ 2,010 | $ 45,003 |

(1) Cumulative spending from inception of the Company or project through December 31, 2013.

(2) Includes: CobOral, CobaCyte and other projects.

Due to uncertainties and certain of the risk factors described above, including those relating to our ability to successfully commercialize our drug candidates, our ability to obtain necessary additional capital to fund operations in the future, our ability to successfully manufacture our products and our product candidates in clinical quantities or for commercial purposes, government regulation to which we are subject, the uncertainty associated with preclinical and clinical testing, intense competition that we face, market acceptance of our products and protection of our intellectual property, it is not possible to reliably predict future spending or time to completion by project or product category or the period in which material net cash inflows from significant projects are expected to commence. If we are unable to timely complete a particular project, our research and development efforts could be delayed or reduced, our business could suffer depending on the significance of the project and we might need to raise additional capital to fund operations, as discussed in the risk factors above, including without limitation those relating to the uncertainty of the success of our research and development activities and our ability to obtain necessary additional capital to fund operations in the future. As discussed in such risk factors, delays in our research and development efforts and any inability to raise additional funds could cause us to eliminate one or more of our research and development programs.

We plan to continue our policy of investing any available funds in certificates of deposit, money market funds, government securities and investment-grade interest-bearing securities. We do not invest in derivative financial instruments.

We do not believe inflation or changing prices have had a material impact on our revenue or operating income in the past three years.

**Series B Cumulative Convertible Preferred Stock**

On October 25, 2012, we entered into a Preferred Stock and Warrant Purchase Agreement (the "Purchase Agreement") with existing investors whereby we agreed to sell 1,000 shares of a newly created series of our preferred stock, designated "Series B Cumulative Convertible Preferred Stock", par value $0.01 per share, for an issue price of $10,000 per share, (the "Series B Preferred Stock") and agreed to issue warrants to purchase 400,000 shares of our common stock at an exercise price of $25.00 per share, for an aggregate purchase price of $10,000,000. The financing consisted of $4,703,000 of new investment and the conversion of approximately $5,297,000 of outstanding dividends payable on our Series A Preferred Stock. Certain terms of the Series B Preferred Stock are senior in right to our outstanding Series A Preferred Stock. The Series B financing was approved by the requisite percentage of the holders of our Series A Preferred Stock and closed on October 25, 2012.

The shares of Series B Preferred Stock are convertible at the option of the holder into shares of our common stock at a conversion price of $25.00 per share of common stock (the "Conversion Price"). The Conversion Price is not subject to adjustment, except in cases of stock splits, stock dividends or similar transactions.

The Series B Preferred Stock is entitled to a liquidation preference, senior to the liquidation preference of the Series A Preferred Stock, equal to the greater of (i) (A) two times (2x) the Stated Value for the Series B Preferred Stock, plus any accumulated and unpaid dividends (whether or not declared) on the Series B Preferred Stock if such liquidation takes place prior to the fifth anniversary of the original issue date or (B) three times (3x) the Stated Value for the Series B Preferred Stock, plus any accumulated and unpaid dividends (whether or not declared) on the Series B Preferred Stock if such liquidation takes place on or after to the fifth anniversary of the original issue date, or (ii) the cash or other property distributable upon such liquidation with respect to the shares of Common Stock into which such shares of Series B Preferred Stock, including any accrued dividends thereon, could have been converted immediately prior to such payment. "Stated Value" shall mean $10,000 per share of Series B Preferred Stock, as it may be increased from time to time as set forth in the Certificate of Designations. The Series B Preferred Stock is also entitled to a dividend of 12% per annum, payable quarterly in cash or additional Stated Value, at the election of the majority holders at time of payment.

We have the right, but not the obligation, and with the written consent of the majority holders, to force conversion ("Mandatory Conversion") of all, but not less than all, of the outstanding Series B Preferred Stock into common stock as long as the closing price of our common stock exceeds $250.00 for at least 20 consecutive trading days immediately prior to the conversion and the average daily trading volume is not less than 4,000 shares per day for at least 20 consecutive trading days immediately prior to such date on which the Company gives notice of such conversion. Our ability to cause a Mandatory Conversion is subject to certain other conditions, including that a registration statement covering the common stock issuable upon such Mandatory Conversion is in effect and able to be used.

The Series B Preferred Stock will vote together with the common stock on an as-if-converted basis. The consent of the Series B Preferred Stock is required for us to take certain actions.

The common stock purchase warrants issued are for an aggregate of 400,000 shares of our common stock at an exercise price of $25.00. The warrants can also be exercised on a cashless basis. The warrants will expire six years from the date of issuance.

The warrant exercise price is subject to equitable adjustment for stock splits, dividends, combinations, and reorganizations only.

All Series B Preferred Stock dividends payable, interest on Series B Preferred Stock dividends payable and liquidated damages will be converted into Series B Preferred Stock just prior to an offering of at least

$10 million. The Series B Preferred Stock, including the shares of Series B Preferred Stock issued upon conversion of all accrued dividends payable, interest on dividends payable and liquidated damages thereon, subject to a liquidation preference, will be exchanged for shares of Common Stock upon consummation of an offering at the offering price pursuant to a Share Exchange Agreement dated September 10, 2014.

**Climate Change**

We do not believe there is anything unique to our business which would result in climate change regulations having a disproportional effect on us as compared to U.S. industry overall.

**Off-Balance Sheet Arrangements**

None.

## BUSINESS

We are an emerging biopharmaceutical company focused on developing a range of pharmaceutical products primarily based upon our nanopolymer chemistry technologies and technology recently licensed from Licensor. We currently have one marketed product licensed in the U.S., Europe, China, Australia, New Zealand and South Korea. We also have additional products and platform technologies in various stages of development where we are seeking partners to continue development and/or to license the technology.

### Marketed Product

- MuGard® is our marketed product for the management of oral mucositis, a frequent side-effect of cancer therapy for which there is no established treatment. The market for mucositis treatment is estimated to be in excess of $1.0 billion worldwide. MuGard, a proprietary nanopolymer formulation, has received marketing allowance in the U.S. from the FDA. We launched MuGard in the U.S. in 2010.

  On June 6, 2013 we entered into an exclusive license agreement with AMAG related to the commercialization of MuGard in the U.S. and its territories. Under the terms of the licensing agreement, we received an upfront licensing fee of $3.3 million and a tiered, double-digit royalty on net sales of MuGard in the licensed territory. We receive quarterly royalty payments from AMAG.

  On August 5, 2010, we entered into an exclusive license with RHEI related to the commercialization of MuGard in China and other Southeast Asian countries. Our China partners have received an acceptance letter from the State Food and Drug Administration of the People's Republic of China, which provides marketing approval in China. MuGard has been manufactured in the U.S. and shipped to China for sale. RHEI has rights to sublicense MuGard sales in some Southeast Asia countries.

  On March 11, 2014, we announced we had entered into an exclusive license agreement with Hanmi related to MuGard commercialization in South Korea.

  On August 7, 2014, we entered into an exclusive license agreement with Norgine, an independent European specialty pharmaceutical company, for the commercialization of MuGard in Europe. Under the terms of the license agreement, we could receive up to $10 million in milestone payments and an escalating double digit royalty on the net sales of the oral mucositis product, MuGard, in the licensed territories. Norgine will develop, manufacture, and commercialize MuGard in the European Union, Switzerland, Norway, Iceland and Lichtenstein. Norgine anticipates launching MuGard in 2015.

  On October 27, 2014, we entered into an exclusive license agreement with Norgine B.V., a European specialist pharmaceutical company, for the commercialization of MuGard in Australia and New Zealand. The terms of the agreement are congruent to our recent license with Norgine for MuGard in Europe. Norgine intends to develop, manufacture and commercialize MuGard in the new territories.

  We are actively seeking partners to license MuGard in other territories.

### Product Candidates

- ProctiGard™ received FDA marketing clearance on July 22, 2014. ProctiGard is our product for the treatment of radiation proctitis, a frequent side effect of radiation treatment to the pelvic region. Radiation proctitis ("RP") is the inflammation and damage to the lower portion of the colon after exposure to x-rays or ionizing radiation as part of radiation therapy. RP is most common after treatments for cancer, such as cervical, colon and prostate cancer. RP can be acute, occurring within weeks of initiation of therapy, or can occur months or years after treatment. We intend to develop ProctiGard in a manner similar to the commercialization of MuGard, which may include confirmatory clinical trials, with the objective of commercialization in collaboration with marketing partners globally.

- LexaGard™, is our proprietary formulation of the generic pharmaceutical agent, amlexanox, a drug with known anti-inflammatory and anti-allergic properties that has been approved and used in the US, Japan and other countries. We are positioning LexaGard for treatment of conditions of the upper gastrointestinal tract including Barrett's esophagus and esophagitis.
- We are also working on additional products using our proprietary mucoadhesive hydrogel technology as a mucoprotectant and/or delivery vehicle, and our vitamin B-12 mediated delivery technology.

**Therapeutic Targets**

| Compound | Originator | Technology | Indication | Clinical Stage |
|---|---|---|---|---|
| MuGard® | PlasmaTech | Mucoadhesive liquid | Mucositis | — Launched in U.S.<br>— Licensed to AMAG: U.S. rights<br>— Licensed to Norgine: European Union rights<br>— Licensed to RHEI: China rights and other SE Asian countries<br>— Licensed to Hanmi: South Korea rights |
| ProctiGard ™ | PlasmaTech | Mucoadhesive hydrogel technology | Radiation proctitis | FDA clearance 7/22/14 |
| LexaGard™ | PlasmaTech | Mucoadhesive hydrogel technology | Inflammatory and ulcerative conditions of the esophagus | Filings being reviewed at FDA |
| Alpha-1 Antitrypsin (AAT) | Licensor | Proprietary biological processing | Various | Process validation |
| Intravenous immune globulin (IVIG) | Licensor | Proprietary biological processing | Various | Process validation |

**Licensor Licensed Technology**

*Background*

On September 22, 2014, we entered into an exclusive, world-wide, licensing agreement with Licensor to obtain rights to utilize and to sub-license to other pharmaceuticals firms, its recently patented methods for the extraction of therapeutic biologics from human plasma.

Plasma biologics are bio-pharmaceutical proteins extracted, purified, and formulated from human blood plasma by the use of biotechnological processing techniques including precipitation, diafiltration, affinity chromatography, and ion-exchange chromatography. These products are rendered virus-safe by means of chemical treatment, nanofiltration, and pasteurization. FDA exercises rigorous control of plasma collection to assure its safety. Because plasma biologics are biosimilar, they are less likely than recombinant or transgenic proteins to cause toxic or other adverse reactions, or cause adverse immunological responses such as the stimulation of inhibitors in recipients.

Plasma biologics primarily address indications arising from genetic deficiencies which are increasingly being identified by means of newly available rapid and low cost diagnostic genetic tests. Examples of plasma biologics include Alpha-1 Antitrypsin ("AAT"), Intravenous Immune Globulin ("IVIG"), Anti-Hemophilic Factor VIII ("AHF") and Albumin, to name a few.

Plasma biologics are currently obtained from human plasma by a fractionation process known as the Cohn Cold Ethanol Fractionation Process ("Cohn Process"), which was developed prior to World War II to provide a stable solution of human albumin for the rapid treatment of hemorrhagic shock on the battlefield. This process employs various concentrations of ethanol combined with adjustments of pH, ionic strength, and

temperature to bring about the necessary separations by precipitation. This process has been used for over 70 years and is still currently considered an industry standard.

*Licensor*

Licensor was founded to develop superior high-yield technology to extract a wide range of therapeutically useful proteins from human blood plasma. Its founder, Eugene J. Zurlo, saw the opportunity to utilize new technology to replace the now 74-year-old Cohn Process in order to fundamentally change the economics of plasma fractionation, improve the quality of existing plasma biologics, and enable the extraction of additional useful plasma proteins.

Due to technology limitations in 1940, E.J. Cohn and his team at Harvard University were compelled to use ethanol combined with changes in pH, ionic strength, and temperature in a lengthy multi-step process to bring about the separation of albumin. In addition to the denaturing effects on plasma proteins by prolonged exposure to ethanol and pH changes from neutrality, commercial production facilities had to be explosion-proof and refrigerated, and were thus highly capital intensive.

Licensor's SDF Process uses salt as the precipitant at neutral pH, followed by salt removal by diafiltration, followed by the use of state-of-the-art chromatography for final separations and purification. The efficacy of the process has been confirmed in pilot scale batches in two independent laboratories. While several salts were found to work, Sodium Citrate was selected because of its "friendliness" to biologics, having been long used as an FDA approved protectant and preservative of whole blood and blood plasma.

The Licensor Process enables the production of unusually high yields of AAT and IVIG compared with the Cohn process and comparable yields of Anti-Hemophilic Factor VIII, which separation occurs before either the Cohn or Licensor Process. Because the Licensor Process optimizes the yields of the more valuable AAT and IVIG, its yields of less valuable albumin are somewhat lower than for Cohn fractionation.

Licensor's short, two-step salt precipitation process, in contrast to the highly denaturing Cohn process, may also enable the extraction of several additional plasma biologics by means of downstream affinity and/or ion-exchange chromatography, thus potentially further improving revenues and process economics deriveable from the same starting plasma. Examples of these additional therapeutic proteins are C-1-Esterase Inhibitor, Protein C, Antithrombin III, Transferrin, and Haptoglobin, all of which are used as treatments for low-incidence genetic deficiencies which could qualify them as Orphan Drugs.

*Plasma Biologic Product Targets*

**AAT**

AAT, also known as alpha-1 protease inhibitor (A1PI), is a protease inhibitor that protects tissues from enzymes produced by inflammatory cells, especially neutrophil elastase. Its normal concentration in human plasma is 1.8 to 3.5 grams per liter. The Licensor Process recovers at least 70% of the target AAT, about 10 times that currently yielded from the Cohn process.

AAT Deficiency is a genetic condition resulting in damage to lung, liver, and pancreatic tissues, with pulmonary emphysema being the most common indication. Approximately 1 in 3,000 Caucasians suffer from the genetic deficiency, with over 150,000 people in North America and Europe living with the deficiency. Treatment involves lifelong weekly injections of AAT of at least 60 mg/Kg of body weight, or about 200 grams per year. Less than 5% of the treatable worldwide population receive AAT therapy.

AAT also exerts immunomodulatory as well as anti-viral and anti-bacterial effects independent of protease inhibition. Administration of AAT in non-deficient individuals may interfere with disease progression in the following conditions: Diabetes (Type 1 and 2), acute myocardial infarction, inflammatory bowel disease, cystic fibrosis, graft vs. host disease, stroke, Alzheimer's disease, vasculitis, organ transplantation, and multiple sclerosis. The number of new potential therapeutic indications for AAT could create supply problems due to the challenge of producing sufficient quantities using current plasma extraction methods to meet the demand created by the growing number of clinical indications. It is the view within the industry that the supply of AAT (without new indications) is currently nearing capacity. The increase in demand, coupled with the limitations of plasma suppy and the shortcomings of the Cohn Fractionation Process, combine to underscore the need for a high-yield process such as the Licensor Process.

**IVIG**

IVIG is extracted from human plasma and contains a broad spectrum of Immunoglobulin G (IgG) antibodies.

On-label indications of IVIG include Primary immune deficiencies of genetic origin (estimated 10 million potential patients worldwide; 60,000 currently treated with IVIG), Chronic lymphocytic leukemia, Idiopathic thrombocytopenia, Pediatric HIV, Allogeneic bone marrow transplantation, Kidney transplantation, and Kawasaki syndrome.

IVIG is currently the main driver for manufacturers utilizing the Cohn Process. Approximately 25 million liters of plasma are processed to produce approximately $7 Billion of revenue. Licensor Process improves yields by at least 10% and is expected to extend half-life in circulation due to reduced denaturation. It also may eliminate thromboembolic events and other adverse events attributed to Cohn process.

**AHF**

AHF is used to treat Hemophilia A, a genetic disease occurring in 1:6,000 male births. Because dose weight is miniscule, a recombinant form can be produced in cell culture to augment production from human plasma. Plasma-derived AHF is extracted from the cryoprecipitate formed during the thawing of Source Plasma before salt or ethanol precipitation. Its use is growing in developing markets; however an estimated 300,000 potential patients worldwide, or ~70%, of potential patients remain untreated.

*Other Potential Products*

Because Licensor's patented sodium citrate extraction process does not have the destructive effects associated with the Cohn Cold Ethanol Process, it becomes possible to extract additional valuable low-dosage biotherapeutic agents for genetic deficiencies through the use of state-of-the-art affinity chromatography now widely available. The following examples include, but not limited to, other biotherapeutics, potentially available through the use of the PT process:

- C-1-esterase inhibitor treats hereditary angioma (HAE). Its genetic incidence: 1:10,000 – 1:50,000.
- Protein C is used to treat venous thromboembolic events. Prevalence of Protein C deficiency is 0.2 – 0.5%.
- Antithrombin III inactivates thrombin and is used to treat thrombotic disorders. Its deficiency occurs in 1:2000 – 1:5000 in a normal population, but can also be acquired as a result of various diseases.

**Approved Products**

MuGard®

*Overview of MuGard*

Mucositis is a debilitating condition involving extensive ulceration of the oral cavity that affects annually an estimated 400,000 cancer patients in the U.S. undergoing chemotherapy and radiation treatment. We believe that any treatment that would accelerate healing and/or diminish the rate of appearance of mucositis would have a significant beneficial impact on the quality of life of these patients and may allow for more aggressive chemotherapy. We believe the potential addressable market for a mucositis product could be over $2.1 billion world-wide.

MuGard is a viscous hydrogel polymer solution which provides a protective coating for the oral cavity. MuGard is dispensed in a ready to use form. A multi-site, randomized clinical study was performed in the U.S. testing MuGard and MuGard containing an anti-inflammatory drug to determine the effect of these products on the prevention and treatment of mucositis. The data from this trial indicated that the patients using MuGard displayed a lower incidence of mucositis than is typically seen in the studied population with no additional benefit from the drug.

The data were retrospectively compared with two historical patient databases to evaluate the potential advantages MuGard may provide in the prevention, treatment and management of mucositis. The patient evaluation was conducted using the oral mucositis assessment scale (OMAS), which qualifies the disease severity on a scale of 0 to 5. Key highlights of the comparison with the historical patient databases are as follows:

- the average severity of the disease was reduced by approximately 40%;
- the maximum intensity of the mucositis was approximately 35% lower; and
- the median peak intensity was approximately 50% lower.

These data confirmed the fact that MuGard could represent an important advancement in the management of mucositis. On December 13, 2006, we announced our receipt of marketing clearance for MuGard from the FDA for the indication of the management of oral wounds including mucositis, aphthous ulcers and traumatic ulcers.

On July 29, 2009, we took control of the North American rights to MuGard from a previous partner which had not received required funding to launch the product in the U.S.

On September 11, 2009, we announced the appointment of Accupac, Inc. as our U.S. manufacturer for MuGard.

We launched MuGard in the U.S. in the fourth quarter of 2010. MuGard had been launched in Germany, Italy, UK, Greece and the Nordic countries by our former European commercial partner, SpePharm. Our partners in China have received registration and marketing approvals.

On June 6, 2013 we entered into an exclusive license agreement with AMAG related to the commercialization of MuGard in the U.S. and its territories. Under the terms of the licensing agreement, we received an upfront licensing fee of $3.3 million and will receive a tiered, double-digit royalty on net sales of MuGard in the licensed territories. AMAG also purchased our existing MuGard inventory.

On August 7, 2014, we entered into an exclusive license agreement with Norgine, an independent European specialty pharmaceutical company, for the commercialization of MuGard in Europe. Under the terms of the license agreement, we could receive up to $10 million in milestone payments and an escalating double digit royalty on the net sales of the oral mucositis product, MuGard, in the licensed territories. Norgine will develop, manufacture, and commercialize MuGard in the European Union, Switzerland, Norway, Iceland and Lichtenstein. Norgine anticipates launching MuGard in 2015.

On October 27, 2014, we entered into an exclusive license agreement with Norgine B.V., a European specialist pharmaceutical company, for the commercialization of MuGard in Australia and New Zealand. The terms of the agreement are congruent to our recent license with Norgine for MuGard in Europe. Norgine intends to develop, manufacture and commercialize MuGard in the new territories.

We initiated a new clinical study of the safety and effectiveness of MuGard in the first quarter of 2011. The study was a controlled, randomized, double-blinded trial of MuGard with a standard treatment for mucositis as a comparator in patients receiving chemoradiation for head and neck cancer. On February 18, 2014, we announced the online publication of the final results of our post-approval marketing study of MuGard in *Cancer*, the journal of the American Cancer Society. The publication, entitled “Multi-Institutional, Randomized, Double-Blind, Placebo-Controlled Trial to Assess the Efficacy of a Mucoadhesive Hydrogel (MuGard) in Mitigating Oral Mucositis Symptoms in Patients Being Treated With Chemoradiation Therapy for Cancers of the Head and Neck” is available at *http://onlinelibrary.wiley.com/doi/10.1002/cncr.28553/full*. The publication discusses the results of this post-marketing clinical trial, providing further evidence of the efficacy of MuGard in controlling symptoms caused by oral mucositis in 120 patients receiving chemoradiation therapy for the treatment of cancers of the head and neck.

ProctiGard™

ProctiGard™ is our product being developed for the management of radiation proctitis, a frequent side effect of radiation treatment to the pelvic region. RP is the inflammation and damage to the lower portion of the

colon after exposure to x-rays or ionizing radiation as part of radiation therapy. RP is most common after treatments for cancer, such as cervical, colon and prostate cancer. RP can be acute, occurring within weeks of initiation of therapy, or can occur months or years after treatment. We intend to develop ProctiGard in a manner similar to the development of MuGard, which may include confirmatory clinical trials, with the objective of commercialization in collaboration with marketing partners globally. On July 22, 2014, we received 510(k) marketing clearance for ProctiGard™.

**Products in Development**

**Drug Development Strategy**

We have a rich potential pipeline of products and product candidates ranging from preclinical development candidates to one approved product. To maximize return on this portfolio, we plan to develop in-house or with collaborators the following products and technologies: MuGard, Mucoadhesive hydrogel technology and CobaCyte/CobOral.

A part of our integrated drug development strategy is to form alliances with centers of excellence in order to obtain alternative lead compounds while minimizing the overall cost of research. We do not spend significant resources on fundamental biological research but rather focus on our chemistry expertise and clinical development.

Our strategy is to focus on our mucoadhesive hydrogel technology for the prevention and treatment of side-effects of cancer therapies while continuing to develop technologies such as CobOral-mediated oral drug delivery and CobaCyte-mediated tumor targeting which could provide us with a revenue stream in the short term through commercialization or outlicensing. To reduce financial risk and financing requirements, we are directing our resources to the preclinical and early clinical phases of development. We plan to co-develop with or to outlicense to marketing partners our therapeutic product candidates where the size of the necessary clinical studies and cost associated with the later clinical development phases are significant. By forming strategic alliances with pharmaceutical and/or biotech companies, we believe that our technology can be more rapidly developed and successfully introduced into the marketplace.

We will continue to evaluate the most cost-effective methods to advance our programs. We plan to contract certain research and development, manufacturing and manufacturing scaleup, preclinical testing and product production to research organizations, contract manufacturers and strategic partners as appropriate to achieve cost savings and accelerate our development programs. We also plan to expand our internal core capabilities and infrastructure in the areas of chemistry, formulation, analytical methods development, clinical development, biology and project management to maximize product opportunities in a timely manner.

**Process**

We generally begin the product development effort by screening and formulating potential product candidates, selecting an optimal active component, developing a formulation, and developing the processes and analytical methods. Pilot stability, toxicity and efficacy testing are conducted prior to advancing the product candidate into formal preclinical development. Specialized skills are required to produce these product candidates utilizing our technology. We have a limited core internal development capability with significant experience in developing these formulations, but also depend upon the skills and expertise of our contractors.

Once the product candidate has been successfully screened in pilot testing, our scientists, together with external consultants, assist in designing and performing the necessary preclinical efficacy, pharmacokinetic and toxicology studies required to obtain regulatory approval to conduct clinical trials. External investigators and scaleup manufacturing facilities are selected in conjunction with our consultants. The initial Phase 1 and Phase 2 studies are conducted by institutions and investigators supervised and monitored by our employees and contract research organizations. We do not plan to have an extensive clinical development organization as we plan to have the advanced phases of this process conducted by a development partner. We expect to engage a contract research organization to perform Phase 3 clinical studies to the extent they are conducted.

We contract with third party contract research organizations to complete our large clinical trials and for data management of all of our clinical trials.

With all of our product development candidates, we cannot be certain that the results of the in vitro or animal studies are or will be indicative of the results that will be obtained if and when these product candidates are tested in humans. We cannot assure you that any of these projects will be successfully completed or that regulatory approval of any product will be obtained.

We expended approximately $884,000 and $2,010,000 on research and development during the years ended December 31, 2013 and 2012, respectively.

**Scientific Background**

We possess a broad range of technologies and intellectual property in the areas of drug delivery and oncology. Our core technologies rely on the use of nanopolymers for use in the management of oral conditions such as mucositis, and in drug delivery. In addition, we have small molecule, peptide, protein, and oligonucleotide programs which also embody the principals of drug delivery and drug targeting.

In our drug delivery programs for oncology, we believe the ultimate criteria for effective drug delivery is to control and optimize the localized release of the drug at the target site and rapidly clear the non-targeted fraction. Conventional oncology drug delivery systems such as controlled release, sustained release, transdermal systems and others are designed for delivering active product into the systemic circulation over time with the objective of improving patient compliance and extending tumor exposure to drug. These systems do not address the biologically relevant issues such as site targeting, localized release and clearance of drug. The major factors that impact the achievement of this ultimate drug delivery goal are the physical characteristics of the drug and the delivery system, and the biological characteristics of the disease target sites. The physical characteristics of the drug affect solubility in biological systems, its biodistribution throughout the body, and its interactions with the intended pharmacological target sites and undesired areas of toxicity. The biological characteristics of the diseased area impact the ability of the drug to selectively interact with the intended target site to allow the drug to express the desired pharmacological activity.

We believe our drug delivery technologies are differentiated from conventional drug delivery systems in that they seek to apply a disease-specific approach to improve the drug delivery process with formulations to significantly enhance the therapeutic efficacy and reduce toxicity of a broad spectrum of products.

Our CobOral drug delivery technology seeks to deliver drugs orally to systemic circulation and CobaCyte to diseased cells. The main use of the CobOral technology will be to deliver drugs orally that otherwise could only be administered by injection because of poor natural oral absorption and/or degradation in the gastrointestinal tract. While other oral drug delivery technologies have been reported, the majority rely on permeation enhancement. Permeation enhancement temporarily increases the gaps between the cells which line the gastrointestinal tract to allow more drug to pass through. But this technique also allows many other materials, many potentially toxic, to enter the body more readily. Additionally, permeation enhancers only permit a small increase in oral uptake. The CobOral technology relies upon a natural receptor-mediated uptake mechanism which can facilitate uptake of larger quantities of drug. Our nanopolymer technology is used to encapsulate the drug, protecting it in the harsh environment of the gastrointestinal tract, and permits slow drug release once transported into systemic circulation.

**Other Drug Delivery Technology Platforms and Technologies**

Our current drug delivery technology platforms for use in cancer chemotherapy are:

- Mucoadhesive Hydrogel Technology;
- CobOral® — Mediated Oral Delivery Technology; and
- CobaCyte® — Mediated Targeted Delivery Technology.

Each of these platforms is discussed below:

**Mucoadhesive Hydrogel Technology**

MuGard® is the first product to be developed using our Mucoadhesive Hydrogel Technology. MuGard® is an innovative mucoadhesive hydrogel product that has been studied clinically in patients with head and neck cancer that are undergoing radiation treatment. Approximately 90% of patients undergoing radiation treatment

for head and neck cancer, and 20 – 50% of patients receiving cytotoxic chemotherapy for various cancers experience a condition known as mucositis, a very painful and debilitating ulceration and infection of the oral cavity, which can be severe enough that the patient may forego proper treatment for the underlying cancer. In clinical trials, MuGard® was shown to lessen the severity and duration of the mucositis in patients, when compared to no treatment or standard of care practices. The protective coating provided by our Mucoadhesive Hydrogel Technology has the potential to treat other ulcerative conditions of the oral cavity such as oral lichen planus and aphthous ulcers. The Mucoadhesive Hydrogel Technology has the potential to provide the basis for additional products which protect other mucosal surfaces, particularly those which are accessible via an external orifice, such as the throat, esophagus, vagina, and rectum.

The Mucoadhesive Hydrogel Technology was originally developed as a drug-delivery vehicle, and the muco-protectant properties described above were discovered subsequently from clinical and preclinical studies of formulations of the Mucoadhesive Hydrogel Technology. PlasmaTech continues to explore new opportunities from the drug-delivery aspects of the Mucoadhesive Hydrogel Technology. Compounds such as drugs, nutritional supplements and medicinal foods normally diffuse rapidly from aqueous formulations. During the original development of the Mucoadhesive Hydrogel Technology, in vitro studies showed that PlasmaTech' hydrogel formulations slowed the release of the drug amlexanox from the aqueous hydrogel formulation to a simulated mucosal surface. Prolonged drug exposure (compared with almost instant release) of the mucosa can be beneficial in treating a number of conditions. Slowed drug release can also provide benefit when the drug is required systemically, as evidenced by the large number of 'CR' solid-dose oral formulations that have been developed and brought to the market following initial development and approval of instant release tablet and capsule formulations. We are now applying its Mucoadhesive Hydrogel Technology to the development of products which benefit from both the mucosal protectant and drug delivery aspects of the technology.

ProctiGard™

ProctiGard™ is our product being developed for the management of radiation proctitis, a frequent side effect of radiation treatment to the pelvic region. RP is the inflammation and damage to the lower portion of the colon after exposure to x-rays or ionizing radiation as part of radiation therapy. RP is most common after treatments for cancer, such as cervical, colon and prostate cancer. RP can be acute, occurring within weeks of initiation of therapy, or can occur months or years after treatment. We intend to develop ProctiGard in a manner similar to the development of MuGard, which may include confirmatory clinical trials, with the objective of commercialization in collaboration with marketing partners globally. On July 22, 2014, we received 510(k) marketing clearance for ProctiGard™.

LexaGard™

LexaGard™, is our proprietary formulation of the generic pharmaceutical agent, amlexanox, a drug with known anti-inflammatory and anti-allergic properties that has been approved and used in the U.S., Japan and other countries. We are positioning LexaGard for treatment of conditions of the upper gastrointestinal tract including Barrett's esophagus and esophagitis.

**CobOral™ — Mediated Oral Delivery Technology**

Oral delivery is the preferred method of administration of drugs where either long-term or daily use (or both) is required. Many therapeutics, including peptide and protein drugs, are poorly absorbed when given orally. With more peptide and protein based biopharmaceuticals entering the market, there is an increasing need to develop an effective oral delivery system for them, as well as for long-standing injected drugs such as insulin.

The difficulty in administering proteins orally is their susceptibility to degradation by digestive enzymes, their inability to cross the intestinal wall and their rapid excretion by the body. Over the years, many different methodologies for making protein drugs available orally have been attempted. Most of the oral protein delivery technologies involve protecting the protein degradation in the intestine. More recently, strategies have been developed that involve co-administering the protein or peptide with permeation enhancers, which assist in passive transit through the gut wall or by attaching the protein or peptide to a molecule that transports the protein across the gut wall. However, the field of oral drug delivery of proteins and peptides has yet to

achieve successful commercialization of a product (although positive results have been achieved in early clinical trials for some products under development).

Many pharmaceutically active compounds such as proteins, peptides and cytotoxic agents cannot be administered orally due to their instability in the gastrointestinal tract or their inability to be absorbed and transferred to the bloodstream. A technology that would allow many of these actives to be taken orally would greatly enhance their acceptance and value. Several technologies for the protection of sensitive actives in the gastro-intestinal tract and/or enhancement of gastro-intestinal absorption have been explored and many have failed.

Our proprietary technology for oral drug delivery utilizes the body's natural vitamin B12 ("VB12") transport system in the gut. The absorption of VB12 in the intestine occurs by way of a receptor-mediated endocytosis. Initially, VB12 binds to naturally-produced intrinsic factor ("IF") in the small intestine, and the VB12-IF complex then binds to the IF receptor on the surface of the intestine. Receptor-mediated endocytosis then allows the transport of VB12 across the gut wall. After binding to another VB12-binding protein, transcobalamin II, VB12 is transferred to the bloodstream.

Our scientists discovered that VB12 will still be transported by this process even when drugs, macromolecules, or nanoparticles are coupled to the VB12. Thus CobOral (VB12 conjugatges of drugs, macromolecules, or nanoparticles) serves as a carrier to transfer these materials from the intestinal lumen to the bloodstream. For drugs and macromolecules that are stable in the gastro-intestinal tract, the drug or macromolecule can be coupled directly (or via a linker) to CobOral. If the capacity of the CobOral transport system is inadequate to provide an effective blood concentration of the active, transport can be amplified by attaching many molecules of the drug to a polymer, to which CobOral is also attached. A further option, especially for drugs and macromolecules that are unstable in the intestine, is to formulate the drug in a nanoparticle which is then coated with CobOral. Once in the bloodstream, the active is released by diffusion and/or erosion of the nanoparticle. Utilization of nanoparticles also serves to "amplify" delivery by transporting many molecules at one time due to the inherently large nanoparticle volume compared with the size of the drug.

Our proprietary position in this technology involves the conjugation of CobOral or its analogs to a polymer to which the drug to be delivered is also attached, or to a nanoparticle in which the drug is incorporated. Since many molecules of the drug are attached to a single polymer strand, or are incorporated in a single nanoparticle, oral uptake is amplified compared to simpler conjugates involving one molecule of the vitamin with one drug molecule. However, in situations when such a simple conjugate might be preferred, our patents also encompass these vitamin-drug conjugates.

**CobaCyte$^{TM}$ — Mediated Targeted Delivery Technology**

Most drugs are effective only when they reach a certain minimum concentration in the region of disease, yet are well distributed throughout the body following delivery to the bloodstream contributing to undesirable side effects. It is therefore advantageous to alter the natural biodistribution of a drug to have it more localized where it is needed. Our CobaCyte-mediated targeted delivery technology utilizes the fact that in many diseases where there is rapid growth and/or cell division, the demand for certain vitamins increases. By coupling the drug to a vitamin analog, the analog serves as a carrier to increase the amount of drug at the disease site relative to its normal distribution.

One application of this technology is in tumor targeting. The use of cytotoxic drugs is one of the most common methods for treating a variety of malignancies including solid and non-solid tumors. The drawbacks of chemotherapeutic treatments, which include tumor resistance, cancer relapse and toxicity from severe damage to healthy tissues, has fuelled a scientific quest for novel treatments that are specifically targeted to malignant cells thus reducing damage to collateral tissues.

The design of targeted therapies involves exploitation of the difference between the structure and function of normal cells compared with malignant cells. Differences include the increased levels of surface receptors on cancer cells, which makes them more sensitive to treatment regimes that target these cell surface receptors and differences in blood supply within and around tumor cells compared with normal cells.

Two basic types of targeting approaches are utilized — passive tumor targeting and active tumor targeting.

- passive tumor targeting involves transporting anti-cancer agents through the bloodstream to tumor cells using a "carrier" molecule. Many different carrier molecules, which can take a variety of forms (micelles, nanoparticles, liposomes and polymers), are being investigated as each provides advantages such as specificity and protection of the anti-cancer drug from degradation due to their structure, size (molecular weights) and particular interactions with tumor cells. Our ProLindac program uses a passive tumor targeting technology.
- active tumor targeting involves attaching an additional fragment to the anticancer drug and the carrier molecule to create a new "targeted" agent that will actively seek a complementary surface receptor to which it binds (preferentially located on the exterior of the tumor cells). The theory is that the targeting of the anti-cancer agent through active binding to the affected cells should allow more of the anti-cancer drug to enter the tumor cell, thus amplifying the response to the treatment and reducing the toxic effect on bystander, normal tissue.

Examples of active targeting fragments include antibodies, growth factors and vitamins. Our scientists have specifically focused on using CobaCyte compounds (analogs of vitamin B12), but we have also used and have certain intellectual property protection for the use of folate and biotin in combination with vitamin B12 which may more effectively target anti-cancer drugs to certain solid tumors.

It has been known for some time that vitamin B12 and folic acid are essential for tumor growth, and as a result, receptors for these vitamins are up-regulated in certain tumors. Vitamin B12 receptor over-expression occurs in breast, lung, leukemic cells, lymphoma cells, bone, thyroid, colon, prostate and brain cancers and some other tumor lines, while folate receptor over-expression occurs in breast, lung, ovarian, endometrial, renal, colon, brain and cancers of myeloid hemotopoietic cells and methotrexate-sensitive tumors.

**Intellectual Property**

We believe that the value of technology both to us and to our potential corporate partners is established and enhanced by our broad intellectual property positions. Consequently, we have already been issued and seek to obtain additional U.S. and foreign patent protection for products under development and for new discoveries. Patent applications are filed with the U.S. Patent and Trademark Office and, when appropriate, with the Paris Convention's Patent Cooperation Treaty (PCT) Countries (most major countries in Western Europe and the Far East) for our inventions and prospective products.

For our mucoadhesive liquid technology, used in MuGard, two U.S. patents have been issued and two European patents have been granted. One European patent has been issued in 19 European countries the other patent is in nationalization process. Patents have also been granted, or are under review, in several other major territories worldwide. Our mucoadhesive liquid technology patents and applications cover a range of products for a variety of diseases and conditions affecting the oral cavity, including the management of the various phases of mucositis.

We have two patented CobaCyte/CobOral-mediated targeted therapeutic technologies:

- two U.S. patents and several U.S. and worldwide patent applications for the use of vitamin B12 to target the transcobalamin II receptor which is upregulated in numerous diseases including cancer, rheumatoid arthritis, certain neurological and autoimmune disorders; and
- six U.S. patents and two European patents and several U.S. and worldwide patent applications for oral delivery of a wide variety of molecules which cannot otherwise be orally administered, utilizing the active transport mechanism which transports vitamin B12 into the systemic circulation.

Enhanced tumor delivery is achieved by targeting folate receptors, which are upregulated in certain tumor types.

Our patents for the following technologies expire in the years and during the date ranges indicated below:

- MuGard mucoadhesive technology in 2022, and
- CobaCyte/CobOral mediated technology between 2015 and 2019.

We licensed from Licensor issued US Patents #7,879,331, #7,879,332, and #8,293,242, the last of which expires in September 2025. We have issued patents in Europe, China, Australia and pending applications in Canada and India. Patents have also been filed in major patent jurisdictions outside the United States.

In addition to issued patents, we have a number of pending patent applications. If issued, the patents underlying these applications could extend the patent life of our technologies beyond the dates listed above.

We have a strategy of maintaining an ongoing line of patent continuation applications for each major category of patentable carrier and delivery technology. By this approach, we are extending the intellectual property protection of our basic targeting technology and initial agents to cover additional specific carriers and agents, some of which are anticipated to carry the priority dates of the original applications.

**Government Regulation**

We are subject to extensive regulation by the federal government, principally by the FDA, and, to a lesser extent, by other federal and state agencies as well as comparable agencies in foreign countries where registration of products will be pursued. Although a number of our formulations incorporate extensively tested drug substances, because the resulting formulations make claims of enhanced efficacy and/or improved side effect profiles, they are expected to be classified as new drugs by the FDA.

The Federal Food, Drug and Cosmetic Act and other federal, state and foreign statutes and regulations govern the testing, manufacturing, safety, labeling, storage, shipping and record keeping of our products. The FDA has the authority to approve or not approve new drug applications and inspect research, clinical and manufacturing records and facilities.

Among the requirements for drug approval and testing is that the prospective manufacturer's facilities and methods conform to the FDA's Code of Good Manufacturing Practices regulations, which establishes the minimum requirements for methods to be used in, and the facilities or controls to be used during, the production process. Such facilities are subject to ongoing FDA inspection to insure compliance.

The steps required before a pharmaceutical product may be produced and marketed in the U.S. include preclinical tests, the filing of an Investigational New Drug (“IND”) application with the FDA, which must become effective pursuant to FDA regulations before human clinical trials may commence, numerous phases of clinical testing and the FDA approval of a New Drug Application (NDA) prior to commercial sale.

Preclinical tests are conducted in the laboratory, usually involving animals, to evaluate the safety and efficacy of the potential product. The results of preclinical tests are submitted as part of the IND application and are fully reviewed by the FDA prior to granting the sponsor permission to commence clinical trials in humans. All trials are conducted under International Conference on Harmonization, good clinical practice guidelines. All investigator sites and sponsor facilities are subject to FDA inspection to insure compliance. Clinical trials typically involve a three-phase process. Phase 1 the initial clinical evaluations, consists of administering the drug and testing for safety and tolerated dosages and in some indications such as cancer and HIV, as preliminary evidence of efficacy in humans. Phase 2 involves a study to evaluate the effectiveness of the drug for a particular indication and to determine optimal dosage and dose interval and to identify possible adverse side effects and risks in a larger patient group. When a product is found safe, and initial efficacy is established in Phase 2, it is then evaluated in Phase 3 clinical trials. Phase 3 trials consist of expanded multi-location testing for efficacy and safety to evaluate the overall benefit-to-risk index of the investigational drug in relationship to the disease treated. The results of preclinical and human clinical testing are submitted to the FDA in the form of an NDA for approval to commence commercial sales.

The process of forming the requisite testing, data collection, analysis and compilation of an IND and an NDA is labor intensive and costly and may take a protracted time period. In some cases, tests may have to be redone or new tests instituted to comply with FDA requests. Review by the FDA may also take considerable time and there is no guarantee that an NDA will be approved. Therefore, we cannot estimate with any certainty the length of the approval cycle.

We are also governed by other federal, state and local laws of general applicability, such as laws regulating working conditions, employment practices, as well as environmental protection.

**License Agreements**

On June 6, 2013 we entered into an exclusive license agreement with AMAG related to the commercialization of MuGard in the U.S. and its territories. Under the terms of the licensing agreement, we received an upfront licensing fee of $3.3 million and will receive a tiered, double-digit royalty on net sales of MuGard in the licensed territories. AMAG also purchased our existing MuGard inventory. The $3.3 million license fee is accounted for as deferred revenue and is recognized over ten years which is the life of the license agreement. The license term expires June 6, 2023. The license can also terminate in the event of breach by either us or AMAG or by AMAG at anytime with 180 days prior notice of termination.

On March 11, 2014, we announced we had entered into an exclusive license agreement with Hanmi related to MuGard commercialization in South Korea. Under the terms of the agreement, we received an upfront licensing fee and double digit royalties on sales of MuGard in the licensed territory. The license term expires February 26, 2024. The license can also terminate in the event of breach or by Hanmi at anytime with 180 days prior notice of termination.

On August 7, 2014, we entered into an exclusive license agreement with Norgine, a leading independent European specialty pharmaceutical company, for the commercialization of MuGard in Europe. Under the terms of the license agreement, we could receive up to $10 million in milestone payments and an escalating double digit royalty on the net sales of the oral mucositis product, MuGard, in the licensed territories. Norgine will develop, manufacture, and commercialize MuGard in the European Union, Switzerland, Norway, Iceland and Lichtenstein. Norgine anticipates launching MuGard in 2015.

On September 22, 2014, we entered into an exclusive, world-wide, licensing agreement with Licensor to obtain rights to utilize and to sub-license to other pharmaceuticals firms, its recently patented methods for the extraction of therapeutic biologics from human plasma.

Under the terms of the licensing agreement, we will pay a license fee of $5 million in a combination of cash and common stock subject to the achievement of certain events, a regulatory approval milestone payment in common shares upon the first FDA regulatory approval of a drug derived from the Licensor's proprietary SDF process, and a tiered royalty on annual net sales of plasma fractions produced with Licensor's proprietary SDF process.

Licensor was founded to develop superior high-yield technology to extract a wide range of therapeutically useful proteins from human blood plasma. We believe that Licensor's proprietary fractionation process is expected to significantly enhance yields of key value blood proteins, including alpha-1 antitrypsin ("AAT"), expanding market opportunities, while greatly enhancing margins. The Company obtained rights to utilize and sub-license to other pharmaceutical firms the recently patented improved methods for the extraction of therapeutic biologics from human plasma. We believe that Licensor's lead product, ATT, offers a low-risk, high revenue, short time-to-market respiratory product for treatment of inherited COPD (pulmonary emphysema), among other genetic AAT deficiencies. Additionally, the ability to extract several additional therapeutically useful and important proteins, due to the process being less destructive than historical fractionation processes, may enable us to seek new therapeutic applications and address high-value-added orphan indications.

**Competition**

The pharmaceutical and biotechnology industry is characterized by intense competition, rapid product development and technological change. Competition is intense among manufacturers of prescription pharmaceuticals and other product areas where we may develop and market products in the future. Most of our potential competitors are large, well established pharmaceutical, chemical or healthcare companies with considerably greater financial, marketing, sales and technical resources than are available to us. Additionally, many of our potential competitors have research and development capabilities that may allow such competitors to develop new or improved products that may compete with our product lines. Our potential products could be rendered obsolete or made uneconomical by the development of new products to treat the conditions to be addressed by our developments, technological advances affecting the cost of production, or marketing or pricing actions by one or more of our potential competitors. Our business, financial condition and results of operation could be materially adversely affected by any one or more of such developments. We cannot assure you that we will be able to compete successfully against current or future competitors or

that competition will not have a material adverse effect on our business, financial condition and results of operations. Academic institutions, governmental agencies and other public and private research organizations are also conducting research activities and seeking patent protection and may commercialize products on their own or with the assistance of major health care companies in areas where we are developing product candidates. We are aware of certain development projects for products to treat or prevent certain diseases targeted by us, and the existence of these potential products or other products or treatments of which we are not aware, or products or treatments that may be developed in the future, may adversely affect the marketability of products developed by us.

In the area of advanced drug delivery, which is the focus of our early stage research and development activities, a number of companies are developing or evaluating enhanced drug delivery systems. We expect that technological developments will occur at a rapid rate and that competition is likely to intensify as various alternative delivery system technologies achieve similar if not identical advantages.

Even if our products are fully developed and receive required regulatory approval, of which there can be no assurance, we believe that our products can only compete successfully if marketed by a company having expertise and a strong presence in the therapeutic area. Consequently, we do not currently plan to establish an internal marketing organization. By forming strategic alliances with major and regional pharmaceutical companies, management believes that our development risks should be minimized and that the technology potentially could be more rapidly developed and successfully introduced into the marketplace.

ActoGeniX N.V., Alder Biopharmaceuticals, Inc., Applied Protein Sciences, LLC, Avaxia Biologics, Inc, BioAlliance Pharma S.A., BMG Pharma s.r.l., Camurus AB, DARA BioSciences, Inc. EUSA Pharma, Galera Therapeutics, Inc. Maya Biotech Ltd., NephRx, Piramal Healthcare Ltd., Soligenix, Inc. and Synedgen are developing products to treat mucositis that may compete with our mucoadhesive liquid technology. Products which are marketed to treat mucositis include Caphosol by EUSA Pharma, Gelclair by DARA BioSciences, Inc., Episil by Camurus AB, and Kepivance by Biovitrum.

Companies working on therapies and formulations that may be competitive with our vitamin mediated drug delivery system are Bristol-Myers Squibb, Centocor (acquired by Johnson & Johnson), Endocyte, GlaxoSmithKline, Imclone and Xoma which are developing targeted monoclonal antibody therapy.

BioDelivery Sciences International, Biocon Limited, Biodel, Inc. Biovail Corporation, Diasome Pharmaceuticals, Depomed Inc., Emisphere Technologies, Inc., Eurand, Flamel Technologies, Merrion Pharmaceuticals, OraMed and Xenoport are developing products which compete with our oral drug delivery system.

The plasma therapeutics industry is highly competitive and driven by several large competitors including Baxter International, Inc. (“Baxter”), CSL Behring (“CSL”) and Grifols SA (“Grifols”). Each of these groups produce AAT under the name of the following, Baxter (Aralast, license of Glassia from Kamada), CSL (Zemairia) and Grifols (Prolastin) Other regional competitors include, but are not limited to, BPL, Kedrion, LFB Group SA, and Octapharma AG. We face competition from both US based and international based producers of plasma products who may have greater access to capital, production facilities and resources for both research and development as well as supplies of plasma.

Furthermore, plasma derived products also face competition from products that are not derived from plasma, and other courses of treatment.

Many of these competitors have greater financial and other resources, including larger research and development, marketing and manufacturing organizations. As a result, our competitors may successfully develop technologies and drugs that are more effective or less costly than any that we are developing or which would render our technology and future products obsolete and noncompetitive.

In addition, some of our competitors have greater experience than we do in conducting preclinical and clinical trials and obtaining FDA and other regulatory approvals. Accordingly, our competitors may succeed in obtaining FDA or other regulatory approvals for drug candidates more rapidly than we do. Companies that complete clinical trials, obtain required regulatory agency approvals and commence commercial sale of their drugs before their competitors may achieve a significant competitive advantage. Drugs resulting from our research and development efforts or from our joint efforts with collaborative partners therefore may not be commercially competitive with our competitors' existing products or products under development.

**Suppliers**

Some materials used by us are specialized. We obtain materials from several suppliers based in different countries around the world. If materials are unavailable from one supplier we generally have alternate suppliers available.

**Employees**

As of December 3, 2014, we had five full-time employees. We have never experienced employment-related work stoppages and consider that we maintain good relations with our personnel.

**Property**

We maintain approximately 2,000 square feet of business office suites for administrative offices in New York, New York. We have a lease agreement for the facility, which terminates in February 2015. Our plans are to renew our lease. We closed our Dallas laboratory in October 2013.

We believe that our existing properties are suitable for the conduct of our business and adequate to meet our present needs.

**Legal Proceedings**

Alan Schmidt, a former shareholder of Genaera Corporation ("Genaera"), and a former unitholder of the Genaera Liquidating Trust (the "Trust"), filed a purported class action in the United States District Court for the Eastern District of Pennsylvania in June 2012. The lawsuit named thirty defendants, including PlasmaTech, MacroChem Corporation, which was acquired by us in February 2009, Jeffrey Davis, the then CEO and a director of PlasmaTech, and Steven H. Rouhandeh and Mark Alvino, both of whom are our directors (the "PlasmaTech Defendants"). With respect to the PlasmaTech Defendants, the complaint alleged direct and derivative claims asserting that directors of Genaera and the Trustee of the Trust breached their fiduciary duties to Genaera, Genaera's shareholders and the Trust's unitholders in connection with the licensing and disposition of certain assets, aided and abetted by numerous defendants including the PlasmaTech Defendants. Schmidt seeks monetary damages, disgorgement of any distributions received from the Trust, rescission of sales made by the Trust, attorneys' and expert fees, and costs. On December 19, 2012, Schmidt filed an amended complaint which asserted substantially the same allegations with respect to the PlasmaTech Defendants. On February 4, 2013, the PlasmaTech Defendants moved to dismiss all claims asserted against them. On August 12, 2013 the court granted the PlasmaTech Defendants' motions to dismiss and entered judgment in favor of the PlasmaTech Defendants on all claims. On August 26, 2013, Schmidt filed a motion for reconsideration. On September 10, 2013 Schmidt filed a Notice of Appeal with the District Court. On September 17, 2013, Schmidt filed his appeal with the U.S. Third Circuit Court of Appeals. On September 25, 2013, the District Court denied Schmidt's motion for reconsideration. On October 17, 2013, Schmidt amended his appeal to include the District court's denial of his motion for reconsideration. On March 20, 2014, Schmidt filed his Brief and Joint Appendix. On May 22, 2014, the PlasmaTech Defendants filed their Oppositions to Schmidt's Brief. On May 29, 2014, Schmidt was granted an extension of time until June 23, 2014 to file his Reply brief and filed his Reply brief on that date. The Third Circuit held oral argument on September 12, 2014. On October 17, 2014, in a split decision, the Third Circuit reversed the District Court's decision holding, among other things, that the District Court's determination that the Amended Complaint was time-barred on statute of limitations grounds was premature. The Third Circuit did not rule upon any of the other grounds for dismissal advanced in the District Court and on appeal. The Third Circuit remanded the case to the District Court for further proceedings. We intend to continue contesting the claims vigorously.

We are not currently subject to any other material pending legal proceedings.

## MANAGEMENT

The following table sets forth our directors and executive officers along with their respective ages and positions as of December 3, 2014:

| Name | Age | Title |
|---|---|---|
| Steven H. Rouhandeh | 57 | Chairman of the Board* |
| Scott Schorer | 46 | Chief Executive Officer |
| Harrison Wehner | 50 | President and Chief Financial Officer |
| Jeffrey B. Davis | 51 | Director* |
| Mark J. Ahn, Ph.D. | 51 | Director |
| Mark J. Alvino | 46 | Director |
| Stephen B. Howell, M.D. | 69 | Director |

* Appointed to the board of directors by SCO Capital Partners LLC ("SCO") pursuant to a Director Designation Agreement between SCO and PlasmaTech.

None of our directors, officers, affiliates or promoters has, within the past ten years, filed any bankruptcy petition, been convicted in or been the subject of any pending criminal proceedings, or is any such person the subject or any order, judgment or decree involving the violation of any state or federal securities laws.

The following is a brief account of the business experience during the past five years of each of our directors and executive officers, including principal occupations and employment during that period and the name and principal business of any corporation or other organization in which such occupation and employment were carried on.

*Mr. Steven H. Rouhandeh* became a director and Chairman of the Board on March 4, 2008. He has been Chief Investment Officer of SCO Capital Partners, a group of New York based life sciences funds since 1997. He possesses a diverse background in financial services that includes experience in asset management, corporate finance, investment banking and law. He has been active throughout recent years as an executive in venture capital and as a founder of several companies in the biotech field. His experience also includes positions as Managing Director of a private equity group at Metzler Bank, a private European investment firm and Vice President, Investment Banking at Deutsche Morgan Grenfell. Mr. Rouhandeh was also a corporate attorney at New York City-based Cravath, Swaine & Moore. Mr. Rouhandeh holds a J.D., from Harvard Law School, Harvard University and B.A. Government, Economics, from Southern Illinois University. Mr. Rouhandeh's qualifications to serve our Board include his institutional knowledge of our Company and his extensive domestic and international financial experience in the healthcare industry.

*Mr. Scott Schorer* became Chief Executive Officer on September 19, 2014. Mr. Schorer previously was Managing Director with Licensor since June 1, 2014. He has served over 18 years in a variety of senior management and board positions, including as CEO and President, and has experience in all aspects of operations including research and development, intellectual property, manufacturing, sales and marketing. Additionally, Mr. Schorer has extensive experience as advisor to operating companies, venture capital firms and private equity firms. Previously, he was President, Americas, of Systagenix Wound Management from February 2009 to May 2010, was President & CEO of Innovative Spinal Technologies from January 2003 to February 2009, and was Co-Founder, President & CEO of CentriMed. Mr. Schorer served with distinction in the US Army, 82$^{nd}$ Airborne, and holds a B.E and B.A. from Dartmouth College and Thayer School of Engineering.

*Mr. Harrison Wehner* became President and Chief Financial Officer on September 19, 2014. Mr. Wehner previously was a Managing Director with Licensor since June 1, 2014. He has over 20 years experience in investment banking advising on equity and debt finance and mergers and acquisitions advisory assignments. Previously, Mr. Wehner held various senior banking roles at Canaccord Genuity from October 2012 to December 2013, with CitiGroup from January 2005 to December 2011, and UBS where he worked on a variety of banking transactions in the healthcare sector, including advisory and transactional experience in the

blood fractionation business. Mr. Wehner holds a BA from The College of William and Mary, and an MBA from the Ross School of Business at the University of Michigan.

*Mr. Jeffrey B. Davis* became a director in March 2006. Mr. Davis was our Chief Executive Officer from December 26, 2007 to September 19, 2014. Mr. Davis was Acting Chief Financial Officer, Treasurer and Secretary from November 1, 2013 to September 19, 2014. From 1996 to 2007, Mr. Davis served in a variety of senior investment banking and management positions, and in senior management at a publicly traded healthcare technology company. Prior to that, Mr. Davis was an investment banker with various Deutsche Bank banking organizations, both in the U.S. and Europe. Mr. Davis also served in senior marketing and product management positions at AT&T Bell Laboratories, where he was also a member of the technical staff, and at Philips Medical Systems North America. Mr. Davis is currently on the board of Uluru, Inc., a public biotechnology company. Mr. Davis holds a B.S. in biomedical engineering from Boston University and an M.B.A. degree from the Wharton School, University of Pennsylvania. Mr. Davis' qualifications to serve on our Board include his current experience as our CEO leading the day to day operations of our Company, his prior experience serving our Board since 2006, as well as his extensive domestic and international financial experience in the healthcare industry.

*Mark J. Ahn, Ph.D.* became a director in September 2006 and is chairman of the Compensation Committee. Dr. Ahn is also a member of the Audit Committee and the Nominating and Corporate Governance Committee. Dr. Ahn was President and Chief Executive Officer since 2011 and a director since 2007 of Galena Biopharma, Inc. until August 2014; and adjunct Professor, Biosciences at Creighton University. He brings more than 21 years of experience in the biopharmaceutical industry. Prior to joining Galena, Dr. Ahn was Principal at Pukana Partners, Ltd. which provides strategic consulting to life science companies; and Associate Professor, Global Management at Atkinson Graduate School of Management, Willamette University. He previously served as Professor and Chair, Science & Technology Management, Victoria University at Wellington, New Zealand. Dr. Ahn was also founder, President, and Chief Executive Officer of Hana Biosciences. Prior to joining Hana, he served as Vice President, Hematology and corporate officer at Genentech, Inc., and held positions of increasing responsibility at Amgen and Bristol-Myers Squibb. Dr. Ahn also serves on public and venture capital-backed board of directors for Galena, Mesynthes and ScribesSTAT. Dr. Ahn is the author of over 50 peer reviewed journal articles and books. Dr. Ahn received a B.A. and M.B.A. from Chaminade University; and M.A. from Victoria University. He was a graduate fellow in Economics at Essex University, and obtained a Ph.D. from the University of South Australia. Dr. Ahn is a Henry Crown Fellow at the Aspen Institute. Dr. Ahn's qualifications to serve on our Board include his leadership skills and his experience in the areas of financial management and business strategy in the biopharmaceutical field.

*Mr. Mark J. Alvino* became a director in March 2006 initially as a designee of SCO Capital Partners LLC and is chairman of the Audit Committee. He is no longer a designee of SCO Capital Partners LLC. Mr. Alvino is also a member of the Nominating and Corporate Governance Committee. Mr. Alvino is currently leading the LifeSciences efforts of Bradley Woods, & Co. Ltd. and has been in this position since 2013. Mr. Alvino was Managing Director for Griffin Securities from 2007 to 2013. Mr. Alvino was Managing Director for SCO Financial Group LLC from 2002 to 2007. Mr. Alvino was a member of the board of directors of MacroChem Corporation from 2007 until February 2009. He previously worked at Feinstein Kean Healthcare, an Ogilvy Public Relations Worldwide Company. There he was Senior Vice President, responsible for managing both investor and corporate communications programs for many private and public companies and acted as senior counsel throughout the agency's network of offices. Prior to working at FKH, Mr. Alvino served as Vice President of Investor Relations and managed the New York Office of Allen & Caron, Inc., an investor relations agency. His base of clients included medical devices, biotechnology, and e-healthcare companies. Mr. Alvino also spent several years working with Wall Street brokerages including Ladenburg, Thalman & Co. and Martin Simpson & Co. Mr. Alvino's qualifications to serve our Board include his leadership skills and his experience in the areas of financial management and business strategy in the biopharmaceutical field.

*Stephen B. Howell, M.D.* became a director in 1996. Dr. Howell is a member of the Compensation Committee and Audit Committee of the Board. Dr. Howell has been Professor of Medicine at the University of California, San Diego since 1977, and director of the Cancer Pharmacology Program of the UCSD Cancer Center since 2006. Dr. Howell is a recipient of the Milken Foundation prize for his contributions to the field

of cancer chemotherapy. He has served on the National Research Council of the American Cancer Society and is on the editorial boards of multiple medical journals. Dr. Howell founded DepoTech, Inc. and served as a member of its board of directors from 1989 to 1999. Dr. Howell served on the board of directors of Matrix Pharmaceuticals from 2000 to 2002. Dr. Howell received his A.B. at the University of Chicago and his M.D. from Harvard Medical School. Dr. Howell's qualifications to serve our Board include his technical expertise and strong commitment to promoting and advancing innovation in the healthcare industry. In addition, Dr. Howell's qualifications include experience as a medical doctor in oncology, his experience as director of several biotech companies and his executive skills and experience as a founder of a biotech company.

**Committees of the Board of Directors**

The Board has an Audit Committee, a Compensation Committee and a Nominating and Corporate Governance Committee. Each of the committees of the Board acts pursuant to a separate written charter adopted by the Board.

The Audit Committee is currently comprised of Mr. Mark J. Alvino (chairman), Dr. Mark J. Ahn, Ph.D and Stephen B. Howell. The Board has determined that Mr. Alvino is an "audit committee financial expert," under applicable SEC rules and regulations. The Audit Committee's responsibilities and duties are, among other things, to engage the independent auditors, review the audit fees, supervise matters relating to audit functions and review and set internal policies and procedure regarding audits, accounting and other financial controls. The Board has determined that Dr. Ahn, Mr. Alvino and Mr. Howell are independent under applicable SEC and Nasdaq rules and regulations. The Audit Committee acts pursuant to a written charter which is available on our website at *www.plasmatechbio.com*.

The Compensation Committee is currently comprised of Dr. Mark J. Ahn, Ph.D. (chairman), Dr. Stephen B. Howell and Mark J. Alvino. Dr. Ahn, Dr. Howell and Mr. Alvino are non-employee directors under applicable SEC rules. The Board has determined that Dr. Ahn, Dr. Howell and Mr. Alvino are independent under applicable Nasdaq rules and regulations. The Compensation Committee acts pursuant to a written charter which is available on our website at *www.plasmatechbio.com*.

The Nominating and Corporate Governance Committee is currently comprised of Dr. Mark Ahn, Ph.D. and Mr. Mark J. Alvino. The Board has determined that Dr. Mark Ahn and Mr. Alvino are independent under applicable SEC and Nasdaq rules and regulations. The Nominating and Corporate Governance Committee is responsible for, among other things, considering potential Board members, making recommendations to the full Board as to nominees for election to the Board, assessing the effectiveness of the Board and implementing our corporate governance guidelines. The Nominating and Corporate Governance Committee acts pursuant to a written charter which is available on our website at *www.plasmatechbio.com*.

**Director Independence**

The Board has determined that each of Dr. Ahn, Mr. Alvino and Dr. Howell are independent under applicable Nasdaq rules. Based on the fully-diluted Common Stock ownership of SCO Capital Partners LLC and its affiliates, the Board has determined we are a "Controlled Company" under applicable Nasdaq rules and regulations and therefore under applicable Nasdaq rules and regulations, we are not required to comply with certain director independence requirements.

**Board Leadership Structure**

The Board has no set policy with respect to the separation of the offices of Chairman and the Chief Executive Officer. Currently, Steven H. Rouhandeh serves as our Chairman and Scott Schorer serves as our Chief Executive Officer. There are currently no lead independent directors serving on the Board.

Our Board leadership structure is commonly utilized by other public companies in the United States, and we believe that it is effective for us. This leadership structure is appropriate for us given the size and scope of our business, the experience and active involvement of our independent directors, and our corporate governance practices, which include regular communication with and interaction between and among the Chief Executive Officer and the independent directors. Of the five members of our Board, three are independent from management. At this time, we believe that having a separate Chairman and Chief Executive Officer and independent chairs for each of our Board committees provides the best form of leadership for us.

**Board of Director's Role in Risk Oversight**

The Board is responsible for overseeing our management and operations, including overseeing our risk assessment and risk management functions. We believe that our directors provide effective oversight of risk management functions. On a regular basis we perform a risk review wherein the management team evaluates the risks we expect to face in the upcoming year and over a longer term horizon. From this risk assessment plans are developed to deal with the risks identified. The results of this risk assessment are provided to the Board for their consideration and review. In addition members of our management periodically present to the Board the strategies, issues and plans for the areas of our business for which they are responsible. While the Board oversees risk management, our management is responsible for day-to-day risk management processes. Additionally, the Board requires that management raise exceptional issues to the Board. We believe this division of responsibilities is the most effective approach for addressing the risks we face and that the Board leadership structure supports this approach.

**Code of Business Conduct and Ethics**

We have adopted a written Code of Business Conduct and Ethics that applies to all of our directors, officers and employees. A copy of our Code of Business Conduct and Ethics is available on our website at *www.plasmatechbio.com* and print copies are available to any stockholder that requests a copy. Any amendment to the Code of Business Conduct and Ethics or any waiver of the Code of Business Conduct and Ethics will be disclosed on our website at *www.plasmatechbio.com* promptly following the date of such amendment or waiver.

## EXECUTIVE AND DIRECTOR COMPENSATION

The following table sets forth the aggregate compensation paid to our CEO and our next two most highly paid executives whose aggregate salary and bonus exceeded $100,000 for services rendered in all capacities for the fiscal years ended December 31, 2013 and 2012.

*Summary Compensation Table*

| Name and Principal Position | Year | Salary ($)[1] | Stock Awards ($)[2] | Option Awards ($)[3] | All Other Compensation[4] | Total ($) |
|---|---|---|---|---|---|---|
| Jeffrey B. Davis[5] | 2013 | $ 503,000 | $ — | $ — | $ 2,000 | $ 505,000 |
| Former Chief Executive Officer | 2012 | 163,000 | — | — | 2,000 | 165,000 |
| David P. Nowotnik, Ph.D.[6] | 2013 | $ 129,000 | $ 81,000 | $ 25,000 | $ 2,000 | $ 237,000 |
| Senior Vice President Research and Development | 2012 | 203,000 | 4,000 | 40,000 | 2,000 | 249,000 |
| Frank S. Jacobucci[7] | 2013 | $ 124,000 | $ 57,000 | $ 131,000 | $ 32,000 | $ 344,000 |
| Vice President, Sales and Marketing | 2012 | 274,000 | 15,000 | 88,000 | 2,000 | 379,000 |

(1) Includes amounts deferred under our 401(k) Plan.

(2) Represents expense recognized in 2013 and 2012 for the fair value of Common Stock vested. The fair value used is the stock price on the date the Common Stock is vested.

(3) The value listed in the above table represents the fair value of the options granted in prior years that was recognized in 2013 and 2012 under ASC 718. Fair value is calculated as of the grant date using a Black-Scholes option-pricing model. The determination of the fair value of share-based payment awards made on the date of grant is affected by our stock price as well as assumptions regarding a number of complex and subjective variables. Our assumptions in determining fair value are described in note 11 to our audited financial statements for the year ended December 31, 2013, included in this prospectus.

(4) Amounts reported for fiscal years 2013 and 2012 consist of: (i) termination fees, and (ii) amounts we paid for group term life insurance for each named individual.

(5) Includes 2013 salary of $271,000 and 2012 accrued salary paid in 2013 of $132,000.

(6) Dr. Nowotnik was our employee until October 31, 2013 and is now a consultant to us.

(7) Mr. Jacobucci was our employee until June 14, 2013 and was paid termination payments of $30,000 and granted 1,000 shares of our stock.

*Outstanding Equity Awards at Fiscal Year-End*

The following table summarizes the aggregate number of option awards held by our named executive officers at December 31, 2013. There were no outstanding stock awards held by any such officers at December 31, 2013:

| Name | Number of Securities Underlying Unexercised Options (#) Exercisable | Number of Securities Underlying Unexercised Options (#) Unexercisable | Equity Incentive Plan Awards: Number of Securities Underlying Unexercised Unearned Options (#) | Option Exercise Price ($)[1] | Option Expiration Date |
|---|---|---|---|---|---|
| Jeffrey B. Davis[2] | 500 | — | — | $ 31.25 | 08/17/16 |
| Frank S. Jacobucci[3] | 2,000 | — | — | 11.50 | 06/15/14 |
| | 1,000 | — | | 30.50 | 06/15/14 |
| | 1,000 | — | | 113.50 | 06/15/14 |
| | 1,800 | — | | 151.00 | 06/15/14 |

(1) On December 31, 2013, the closing price of our Common Stock as quoted on the OTC QB was $12.50 per share.

(2) Mr. Davis' employment agreement started January 4, 2008. The options included in this table were granted to him as a director before he became CEO.

(3) Mr. Jacobucci is no longer an employee since June 2014.

**Compensation Pursuant to Agreements and Plans**

*Employment Agreements*

Chief Executive Officer

We are a party to an employment letter agreement with Scott Schorer who was named by the Board as our Chief Executive Officer as of September 19, 2014. Pursuant to the terms of his employment agreement, Mr. Schorer is entitled to be paid an annual base salary of $350,000 subject to annual increases each year, at the discretion of the Board. He is entitled to a merit bonus up to 30% of the base salary at the discretion of the Compensation Committee of the Board. Mr. Schorer was awarded stock options to purchase 80,000 shares of our Common Stock. Mr. Schorer is entitled to similar employee benefits as our other executive officers. The employee agreement is effective September 19, 2014 and compensation and employee benefits will accrue until the closing of the planned offering.

President and Chief Financial Officer

We are a party to an employment letter agreement with Harrison G. Wehner, III who was named by the Board as our President and Chief Financial Officer as of September 19, 2014. Pursuant to the terms of his employment agreement, Mr. Wehner is entitled to be paid an annual base salary of $350,000 subject to annual increases each year, at the discretion of the Board. He is entitled to a merit bonus up to 30% of the base salary at the discretion of the Compensation Committee of the Board. Mr. Wehner was awarded stock options to purchase 80,000 shares of our Common Stock. Mr. Wehner is entitled to similar employee benefits as our other executive officers. The employee agreement is effective September 19, 2014 and compensation and employee benefits will accrue until the closing of the planned offering.

Former President and Chief Executive Officer

We were a party to an employment agreement, with Jeffrey B. Davis, who was named by the Board as our Chief Executive Officer, effective from December 26, 2007 until September 19, 2014. Mr. Davis' employment agreement, dated January 4, 2008, was amended April 9, 2008 and was renewed automatically every year. Pursuant to the terms of his employment agreement, as amended, Mr. Davis was entitled to be paid an annual salary of $325,000 in 2013 and $325,000 in 2012. Under this agreement, Mr. Davis was currently entitled to receive an annual base salary of $325,000. Mr. Davis has not taken a salary since November 1, 2013. Mr. Davis was previously awarded stock options to purchase 500 shares of our Common Stock prior to becoming CEO and on March 17, 2014 was awarded stock options to purchase 40,000 shares of our Common Stock. Mr. Davis was entitled to similar employee benefits as our other executive officers.

**Compensation of Directors**

*Director Compensation Table — 2013*

The table below represents the compensation paid to our outside directors during the year ended December 31, 2013:

| Name | Fees earned or Paid in Cash ($) | Stock Awards ($) | Option Awards ($)[1] | All Other Compensation ($) | Total ($) |
|---|---|---|---|---|---|
| Mark J. Ahn, Ph.D. | 16,000 | — | 17,000 | — | 33,000[2] |
| Mark J. Alvino | 16,000 | — | 17,000 | — | 33,000[3] |
| Stephen B. Howell, MD | 16,000 | — | 17,000 | — | 33,000[4] |

(1) The value listed represents the fair value of the options recognized as expense under ASC 718 during 2012. Fair value is calculated as of the grant date using a Black-Scholes ("Black-Scholes") option-pricing model. The determination of the fair value of share-based payment awards made on the date of grant is affected by our stock price as well as assumptions regarding a number of complex and subjective variables. Our assumptions in determining fair value are described in note 11 to our audited financial statements for the year ended December 31, 2013, included in this prospectus.

(2) Represents expense recognized in 2013 in respect of the fair value of options to purchase 2,000 shares of our Common Stock based on a grant date, December 11, 2012. Dr. Ahn had options to purchase 5,320 shares of our Common Stock at December 31, 2013.

(3) Represents expense recognized in 2013 in respect of the fair value of options to purchase 2,000 shares of our Common Stock based on a grant date, December 11, 2012. Mr. Alvino had options to purchase 2,120 shares of our Common Stock at December 31, 2013.

(4) Represents expense recognized in 2013 in respect of the fair value of options to purchase 2,000 shares of our Common Stock based on a grant date, December 11, 2012. Dr. Howell had options to purchase 5,444 shares of our Common Stock at December 31, 2013.

**Compensation of Directors**

Each director who is not also an PlasmaTech employee receives a quarterly fee of $3,000 and also receives $1,000 per quarter in aggregate for all the committees of which he is a member. Each director will have $2,000 deducted from his fee if the director misses more than one Board meeting, and $1,000 deducted per committee meeting not attended. In addition, we reimbursed each director, whether an employee or not, the expense of attending Board and committee meetings. Each non-employee director is also entitled to receive options to purchase 500 shares of Common Stock when he is first appointed as a director. Additionally, the Company pays health insurance premiums for Mr. Rouhandeh and Mr. Davis in the amount of a current monthly premium of $2,631.

During 2012, each of our directors elected to receive options to purchase 500 shares of Common Stock in lieu of their quarterly cash fees. For each committee of which a director was a member, he received options to purchase 200 shares of our Common Stock. Each director also received a 300 share stock grant. In December 2012 each of our independent directors elected to receive options to purchase 2,000 shares of Common Stock. No stock or stock options were granted in 2013.

## PRINCIPAL STOCKHOLDERS

Based solely upon information made available to us, the following table sets forth certain information with respect to the beneficial ownership of our Common Stock as of December 3, 2014 by (i) each person who is known by us to beneficially own more than five percent of any class of our capital stock; (ii) each of our directors; (iii) each of our named executive officers; and (iv) all our executive officers and directors as a group. Beneficial ownership as reported in the following table has been determined in accordance with Rule 13d-3 under the Securities Exchange Act of 1934, as amended. The address of each holder listed below, except as otherwise indicated, is c/o PlasmaTech Biopharmaceuticals, Inc., 4848 Lemmon Avenue, Suite 517, Dallas, Texas 75219.

| Name and Address of Beneficial Owner | Amount and Nature of Beneficial Ownership Common Stock[1] | Percent of Common Stock[2] | Amount and Nature of Beneficial Ownership Preferred Stock (on an as-if-converted basis) | Amount and Nature of Beneficial Ownership All Classes of Stock[1] | Percent of All Classes[3] |
|---|---|---|---|---|---|
| Steven H. Rouhandeh[4] | 20,000 | 3.6 | — | 20,000 | * |
| Jeffrey B. Davis[5] | 10,647 | 1.9 | — | 10,647 | * |
| Mark J. Ahn, Ph. D.[6] | 8,320 | 1.5 | — | 8,320 | * |
| Mark J. Alvino[7] | 4,620 | * | — | 4,620 | * |
| Stephen B. Howell, M.D.[8] | 8,389 | 1.5 | — | 8,389 | * |
| SCO Capital Partners LLC, SCO Capital Partners LP, and Beach Capital LLC[9] | 548,463 | 54.0% | 2,868,758 | 3,417,221 | 71.5% |
| Larry N. Feinberg[10] | 9,873 | 1.8% | 508,501 | 518,374 | 12.1% |
| Lake End Capital LLC[11] | 17,023 | 3.1% | 276,652 | 293,675 | 6.8% |
| All Directors and Executive Officers as a group (consisting of 7 persons)[12] | 51,976 | 8.8% | — | 57,976 | 1.2% |

* — Less than 1%

(1) Includes our outstanding shares of Common Stock held plus all shares of Common Stock issuable upon exercise of options, warrants and other rights exercisable within 60 days of December 3, 2014.

(2) Based upon 536,089 shares of Common Stock issued and outstanding as of December 3, 2014.

(3) Based upon 536,089 shares of Common Stock issued and outstanding as of December 3, 2014 shares of Common Stock issuable upon conversion of the Series A and Series B Preferred Stock.

(4) Steven H. Rouhandeh, our Chairman, is known to beneficially own an aggregate of presently exercisable options for the purchase of 20,000 shares of our Common Stock pursuant to the 2005 Equity Incentive Plan. He is also Chairman of SCO Financial Group LLC. His address is c/o SCO Capital Partners LLC, 1325 Avenue of the Americas, 27th Floor, New York, NY 10019. SCO Financial Group LLC and affiliates (SCO Capital Partners LP and Beach Capital LLC) are known to beneficially own an aggregate of 69,640 shares of our Common Stock, warrants to purchase an aggregate of 478,823 shares of our Common Stock, 2,468,758 shares of Common Stock issuable upon conversion of Series A Preferred Stock and 400,000 shares of Common Stock issuable upon conversion of Series B Preferred Stock. Mr. Rouhandeh disclaims beneficial ownership of all such shares except to the extent of his pecuniary interest therein.

(5) Mr. Davis, our former Chief Executive Officer, is known to beneficially own an aggregate of 147 shares of our Common Stock and presently exercisable options for the purchase of 10,500 shares of our Common Stock pursuant to the 2005 Equity Incentive Plan. Lake End Capital LLC's address is 33 Tall Oaks Drive, Summit, NJ 07901. Lake End Capital LLC is known to beneficially own an aggregate of 6,713 shares of our Common Stock, warrants to purchase an aggregate of 10,310 shares of our Common Stock and 276,652 shares of Common Stock issuable to them upon conversion of Series A Preferred Stock. Mr. Davis disclaims beneficial ownership of all such shares except to the extent of his pecuniary interest therein.

(6) Dr. Ahn, our Director, is known to beneficially own an aggregate of 500 shares of our Common Stock, presently exercisable options for the purchase of 7,820 shares of our Common Stock pursuant to the 2005 Equity Incentive Plan.

(7) Mr. Alvino, our Director, is known to beneficially own an aggregate of presently exercisable options for the purchase of 4,620 shares of our Common Stock pursuant to the 2005 Equity Incentive Plan.

(8) Dr. Howell is known to beneficially own an aggregate of 495 shares of our Common Stock, presently exercisable options for the purchase of 7,844 shares of our Common Stock pursuant to the 2005 Equity Incentive Plan and 50 shares of our Common Stock pursuant to the 1995 Stock Option Plan.

(9) SCO Capital Partners LLC, SCO Capital Partner LP, Beach Capital LLC and SCO Financial Group's address is 1325 Avenue of the Americas, 27 th Floor, New York, NY 10019. SCO Financial Group LLC and affiliates (SCO Capital Partners LP and Beach Capital LLC) are known to beneficially own an aggregate of 69,640 shares of our Common Stock, warrants to purchase an aggregate of 478,823 shares of our Common Stock, 2,468,758 shares of Common Stock issuable upon conversion of Series A Preferred Stock and 400,000 shares of Common Stock issuable upon conversion of Series B Preferred Stock. Each of Mr. Rouhandeh and Mr. Davis, directors of PlasmaTech and Mr. Rouhandeh and Mr. Davis are executives of SCO Capital Partners LLC and disclaim beneficial ownership of such shares except to the extent of their pecuniary interest therein.

(10) Larry N. Feinberg is a partner in Oracle Partners, L.P. His address is c/o Oracle Partners, L.P., 200 Greenwich Avenue, 3rd Floor, Greenwich, CT 06830. Oracle Partners, L.P. and affiliates (Oracle Institutional Partners, L.P., Oracle Investment Management, Inc., Sam Oracle Fund, Inc. and Mr. Feinberg) are known to beneficially own an aggregate of 9,873 shares of our Common Stock and Series A Preferred Stock which may be converted into an aggregate of 508,501 shares of our Common Stock.

(11) Lake End Capital LLC's address is 33 Tall Oaks Drive, Summit, NJ 07901. Lake End Capital LLC is known to beneficially own an aggregate of 6,713 shares of our Common Stock, warrants to purchase an aggregate of 10,310 shares of our Common Stock and 276,652 shares of Common Stock issuable to them upon conversion of Series A Preferred Stock.

(12) Does not include shares held by SCO Financial Group LLC and affiliates nor Lake End Capital LLC.

## CERTAIN TRANSACTIONS

On occasion we may engage in certain related party transactions. Pursuant to our Audit Committee charter, our policy is that all related party transactions are reviewed and approved by the Board of Directors or Audit Committee prior to our entering into any related party transactions.

In the event SCO Capital Partners LLC (SCO) and its affiliates were to convert all of their shares of Series A Preferred Stock, Series B Preferred Stock and exercise all of their warrants, they would own approximately 71.5% of the voting securities of PlasmaTech. During 2013 and 2012, SCO and affiliates charged $300,000 each year in investor relations fees.

In connection with the sale and issuance of Series A Preferred Stock and warrants, we entered into a Director Designation Agreement on November 15, 2007 whereby we agreed to continue SCO's right to designate two individuals to serve on the Board of Directors of PlasmaTech.

On September 10, 2014, we entered into an Unsecured Grid Note, for up to $250,000 with SCO. As of December 3, 2014 we have drawn a total of $250,000. The interest rate is 8% per annum and the maturity date is August 31, 2015 unless a financing of at least $5,000,000 occurs, then the note is required to be paid in full.

On September 10, 2014 we entered into a Share Exchange Agreement for Series B Preferred Stock between us and SCO Capital Partners LLC and Beach Capital LLC whereby we agreed in connection with the consummation of the an offering for the Series B Preferred Stock to be converted into Common Stock. All Series B Preferred Stock dividends payable, interest on Series B Preferred Stock dividends payable and liquidated damages will be converted into Series B Preferred Stock just prior to an offering of at least $10 million. The Series B Preferred Stock, including the shares of Series B Preferred Stock issued upon conversion of all accrued dividends payable, interest on dividends payable and liquidated damages thereon, subject to a liquidation preference, will be exchanged for shares of Common Stock upon consummation of an offering at the offering price pursuant to a Share Exchange Agreement dated September 10, 2014.

On December 1, 2014, we entered into a second Unsecured Grid Note, for up to $250,000 with SCO. As of December 3, 2014 we have drawn a total of $150,000. The interest rate is 8% per annum and the maturity date is November 30, 2015 unless a financing of at least $5,000,000 occurs, in which event the note is required to be paid in full.

## DESCRIPTION OF SECURITIES

Our certificate of incorporation authorizes the issuance of 200,000,000 shares of common stock, $.01 par value per share, and 2,000,000 shares of preferred stock, $.01 par value per share, which may be issued in one or more series. Currently, 4,000 shares of preferred stock are designated as Series A Preferred Stock and 1,000 shares of preferred stock are designated as Series B Preferred Stock. As of December 3, 2014 there were 536,089 shares of common stock outstanding and held of record by approximately 6,700 stockholders, and there were 2,893.3617 shares of its Series A Preferred Stock outstanding convertible into 7,233,404 shares of common stock and 1,000 shares of its Series B Preferred Stock outstanding convertible into 5,000,000 shares of common stock.

### Reverse Stock Split

Our Board of Directors and majority shareholders approved an amendment to our certificate of incorporation to effect a reverse stock split of our common stock at a ratio between 1 for 5 and 1 for 50 in order to satisfy requirements for the listing of our common stock on the NASDAQ Capital Market. Our stockholders further authorized the board of directors to determine the ratio at which the reverse stock split would be effected. Our board of directors authorized the ratio of the Reverse Split on October 16, 2014 and to be effective at the opening of business on October 24, 2014. We amended our certificate of incorporation to effect the reverse split at a ratio of 1 for 50 (the “Reverse Split”).

### Common Stock

Holders of our common stock are entitled to one vote for each share held on all matters submitted to a vote of stockholders and have the right to vote cumulatively for the election of directors. This means that in the voting at our annual meeting, each stockholder or his proxy, may multiply the number of his shares by the number of directors to be elected then cast the resulting total number of votes for a single nominee, or distribute such votes on the ballot among the nominees as desired. Holders of our common stock are entitled to receive ratably such dividends, if any, as may be declared by our Board of Directors out of funds legally available therefor, subject to any preferential dividend rights for our outstanding preferred stock. Upon our liquidation, dissolution or winding up, the holders of our common stock are entitled to receive ratably our net assets available after the payment of all debts and other liabilities and subject to the prior rights of any of our outstanding preferred stock. Holders of our common stock have no preemptive, subscription, redemption or conversion rights. The rights, preferences and privileges of holders of our common stock are subject to, and may be adversely affected by, the rights of the holders of shares of any series of our preferred stock which we may designate and issue in the future.

### Warrants to be Issued as Part of this Offering

The warrants offered in this offering will be issued in a form filed as an exhibit to the registration statement of which this prospectus is a part. You should review a copy of the form of warrant for a complete description of the terms and conditions applicable to the warrants. The following is a brief summary of the warrants and is subject in all respects to the provisions contained in the form of warrant.

Each warrant represents the right to purchase one share of common stock at an exercise price equal to $5.00, subject to adjustment as described below. Each warrant may be exercised on or after the closing date of this offering through and including the close of business on the fifth anniversary of the date of issuance. Each warrant will have a cashless exercise right in the event that the shares of common stock underlying such warrants are not covered by an effective registration statement at the time of such exercise.

The exercise price and the number of shares underlying the warrants are subject to appropriate adjustment in the event of stock splits, stock dividends on our common stock, stock combinations or similar events affecting our common stock. In addition, in the event we consummate any merger, consolidation, sale or other reorganization event in which our common stock is converted into or exchanged for securities, cash or other property or we consummate a sale of substantially all of our assets, in each case within two years of the date of issuance, and the exercise price of the warrants exceeds the consideration paid in respect of our common stock in connection with such transaction, then in connection with following such event, the holders of the warrants will be entitled to receive an amount equal to the Black-Scholes value of the warrants as of the date of such transaction.

No fractional shares of common stock will be issued in connection with the exercise of a warrant. In lieu of fractional shares, we will pay the holder an amount in cash equal to the fractional amount multiplied by the market value of a share of common stock. A warrant may be transferred by a holder, upon surrender of the warrant, properly endorsed (by the holder executing an assignment in the form attached to the warrant).

The warrants are not exercisable by their holder to the extent (but only to the extent) that such holder or any of its affiliates would beneficially own in excess of 4.99% of our common stock.

Amendments and waivers of the terms of the warrants require the written consent of the holder of such warrant and us.

**Preferred Stock**

Our Board of Directors is authorized, subject to certain limitations prescribed by law, without further stockholder approval, to issue from time to time up to an aggregate of 2,000,000 shares of preferred stock in one or more series and to fix or alter the designations, preferences, rights and any qualifications, limitations or restrictions of the shares of each such series thereof, including the dividend rights, dividend rates, conversion rights, voting rights and terms of redemption of shares constituting any series or designations of such series. The issuance of preferred stock may have the effect of delaying, deferring or preventing a change of control.

*Series A Preferred Stock*

Our Board of Directors has designated 4,000 shares of preferred stock as Series A Preferred Stock. The shares of Series A Preferred are convertible at the option of the holder into shares of our common stock at a conversion price of $25.00 per share of common stock.

The Series A Preferred Stock is entitled to a liquidation preference equal to $10,000 per share and is entitled to a dividend of 6% per annum, payable semi-annually in cash or if certain conditions are met, in common stock, at the option of the Company at time of payment. Our ability to pay dividends in shares of common stock is limited by among other things a requirement that (i) there is an effective registration statement on the shares of common stock, issuable to the holders of Series A Preferred Stock, in the 20 day period immediately prior to such dividend or (ii) that such shares of common stock referred to in (i) may be sold without restriction pursuant to Rule 144(k) during the 20 day period immediately prior to such dividend.

We have the right, but not the obligation, to force conversion of all, and not less than all, of the outstanding Series A Preferred Stock into common stock (i) as long as the closing price of our common stock exceeds $250.00 for at least 20 of the 30 consecutive trading days immediately prior to the conversion and the average daily trading volume is greater than 2,000 shares per day for at least 20 of the 30 consecutive trading days immediately prior to such conversion, in each case, immediately prior to the date on which we give notice of such conversion or (ii) if we close a sale of common stock in which the aggregate proceeds are equal to or greater than $10,000,000. Our ability to cause a mandatory conversion is subject to certain other conditions, including that a registration statement covering the common stock issuable upon such mandatory conversion is in effect and able to be used.

The conversion price of the Series A Preferred Stock is subject to a price adjustment upon the issuance of additional shares of common stock for a price below $25.00 per share and equitable adjustment for stock splits, dividends, combinations, reorganizations and the like.

The Series A Preferred Stock will vote together with the common stock on an as-if-converted basis.

Holders of Series A Preferred Stock are entitled to purchase their pro rata share of additional stock issuances in certain future financings.

On October 23, 2014, we filed in Delaware a Certificate of Amendment to Certificate of Designations, Rights and Preferences of Series A Cumulative Convertible Preferred Stock (the “Certificate of Amendment”) to amend the Certificate of Amendment to allow a special mandatory conversion of the Series A Cumulative Convertible Preferred Stock, $0.01 par value per share (the “Series A Preferred Stock”) under certain circumstances, including qualified financings, as described in the Certificate of Amendment.

Series A Preferred Stock and all accrued dividends thereon plus interest will convert into 8,885,129 shares of Common Stock upon consummation of this offering.

*Series B Preferred Stock*

Our Board of Directors has designated 1,000 shares of preferred stock as Series B Preferred Stock. The shares of Series B Preferred are convertible at the option of the holder into shares of our common stock at a conversion price of $25.00 per share of common stock.

The Series B Preferred Stock is entitled to a liquidation preference equal to $10,000 per share and is entitled to a dividend of 12% per annum, payable quarterly in cash or through an increase in stated value, or a combination thereof. The form of dividend payment shall be determined at the election of the Majority Holders. Our ability to pay dividends in shares of common stock is limited by among other things a requirement that (i) if funds are legally available for the payment of cash dividends in cash on by accreting to and increasing the outstanding Stated Value per share of Series B Preferred Stock; or (ii) if funds are not legally available for the payment of cash dividends by accreting to and increasing the outstanding Stated Value per share of Series B Preferred Stock.

We have the right, but not the obligation, to force conversion of all, and not less than all, of the outstanding Series B Preferred Stock into common stock (i) as long as the closing price of our common stock exceeds $250.00 for at least 20 consecutive trading days immediately prior to the conversion and the average daily trading volume is not less than 4,000 shares per day for at least 20 consecutive trading days immediately prior to such conversion, in each case, immediately prior to the date on which we gives notice of such conversion. Our ability to cause a mandatory conversion is subject to certain other conditions, including that a registration statement covering the common stock issuable upon such mandatory conversion is in effect and able to be used.

The conversion price of the Series B Preferred Stock is subject to a price adjustment upon the issuance of additional shares of common stock for a price below $25.00 per share and equitable adjustment for stock splits, dividends, combinations, reorganizations and the like.

The Series B Preferred Stock will vote together with the common stock on an as-if-converted basis.

Holders of Series B Preferred Stock are entitled to purchase their pro rata share of additional stock issuances in certain future financings.

All Series B Preferred Stock dividends payable, interest on Series B Preferred Stock dividends payable and liquidated damages will be converted into Series B Preferred Stock just prior to an offering of at least $10 million. The Series B Preferred Stock, including the shares of Series B Preferred Stock issued upon conversion of all accrued dividends payable, interest on dividends payable and liquidated damages thereon, subject to a liquidation preference, will be exchanged for 6,763,530 shares of Common Stock upon consummation of an offering at the offering price pursuant to a Share Exchange Agreement dated September 10, 2014.

**Warrants**

As of December 3, 2014, warrants for the issuance of 577,756 shares of our common stock were outstanding, all of which are exercisable at a weighted average exercise price of $46.62 per share, all of which are exercisable through various dates expiring between January 26, 2015 and October 24, 2018.

**Representative's Warrants**

We have agreed to issue to Aegis Capital Corp., the representative of the underwriters in this offering, warrants to purchase up to 87,500 shares of our common stock at a per share exercise price equal to $5.00.

**Transfer Agent and Registrar**

The transfer agent and registrar of our common stock is American Stock Transfer & Trust Company, New York, New York.

**Delaware Law and Certain Charter and By-Law Provisions**

*Certain anti-takeover provisions.*

We are subject to the provisions of Section 203 of the General Corporation Law of Delaware. Section 203 prohibits certain publicly held Delaware corporations from engaging in a "business combination" with an

"interested stockholder," for a period of three years after the date of the transaction in which the person became an "interested stockholder", unless the business combination is approved in a prescribed manner. A "business combination" includes mergers, asset sales and other transactions resulting in a financial benefit to the interested stockholder. Subject to certain exceptions, an "interested stockholder" is a person or entity who, together with affiliates and associates, owns (or within the preceding three years, did own) 15% or more of the corporation's voting stock. The statute contains provisions enabling a corporation to avoid the statute's restrictions if the stockholders holding a majority of the corporation's voting stock approve our Certificate of Incorporation provides that our directors shall be divided into three classes, with the terms of each class to expire on different years.

In addition, our Certificate of Incorporation, in order to combat "greenmail," provides in general that any direct or indirect purchase by us of any of our voting stock or rights to acquire voting stock known to be beneficially owned by any person or group which holds more than five percent of a class of our voting stock and which has owned the securities being purchased for less than two years must be approved by the affirmative vote of at least two-thirds of the votes entitled to be cast by the holders of voting stock, subject to certain exceptions. The prohibition of "greenmail" may tend to discourage or foreclose certain acquisitions of our securities which might temporarily increase the price of our securities. Discouraging the acquisition of a large block of our securities by an outside party may also have a potential negative effect on takeovers. Parties seeking control of us through large acquisitions of its securities will not be able to resort to "greenmail" should their bid fail, thus making such a bid less attractive to persons seeking to initiate a takeover effort.

We are a party to a Rights Agreement pursuant to which we agree to provide holders of our common stock with the right to buy shares of preferred stock should a party acquire or beneficially own more than 15% of our common stock without first being exempted by us. Such shares of preferred stock will entitle to the holder to certain voting, dividend and liquidation preferences and is designed to discourage take-over attempts not previously approved by our Board of Directors.

**Elimination of Monetary Liability for Officers and Directors**

Our Certificate of Incorporation incorporates certain provisions permitted under the General Corporation Law of Delaware relating to the liability of directors. The provisions eliminate a director's liability for monetary damages for a breach of fiduciary duty, including gross negligence, except in circumstances involving certain wrongful acts, such as the breach of director's duty of loyalty or acts or omissions, which involve intentional misconduct or a knowing violation of law. These provisions do not eliminate a director's duty of care. Moreover, these provisions do not apply to claims against a Director for certain violations of law, including knowing violations of federal securities law. Our Certificate of Incorporation also contains provisions to indemnify the directors, officers, employees or other agents to the fullest extent permitted by the General Corporation Law of Delaware. We believe that these provisions will assist us in attracting and retaining qualified individual to serve as directors.

Our Certificate of Incorporation also contains provisions to indemnify the directors, officers, employees or other agents to the fullest extent permitted by the General Corporation Law of Delaware. These provisions may have the practical effect in certain cases of eliminating the ability of shareholders to collect monetary damages from directors. We believe that these provisions will assist us in attracting or retaining qualified individuals to serve as our directors.

## UNDERWRITING

H.C. Wainwright & Co. and Aegis Capital Corp. are acting as co-managers of the offering and Aegis Capital Corp. is acting as representative of the underwriters, or the Representative. We have entered into an underwriting agreement dated December 18, 2014 with the Representative. Subject to the terms and conditions of the underwriting agreement, we have agreed to sell to each underwriter named below and each underwriter named below has severally agreed to purchase, at the public offering price less the underwriting discount set forth on the cover page of this prospectus, the number of shares of common stock and warrants listed next to its name in the following table:

| Name of Underwriter | Number of Shares | Number of Warrants |
|---|---|---|
| H.C. Wainwright & Co. | 1,837,500 | 275,625 |
| Aegis Capital Corp. | 1,662,500 | 249,375 |
| Total | 3,500,000 | 525,000 |

The underwriters are committed to purchase all the shares of common stock and warrants offered by us other than those covered by the option to purchase additional shares described below, if they purchase any shares and warrants. The obligations of the underwriters may be terminated upon the occurrence of certain events specified in the underwriting agreement. Furthermore, pursuant to the underwriting agreement, the underwriters' obligations are subject to customary conditions, representations and warranties contained in the underwriting agreement, such as receipt by the underwriters of officers' certificates and legal opinions.

The underwriters are offering the shares and warrants, subject to prior sale, when, as and if issued to and accepted by them, subject to approval of legal matters by their counsel and other conditions specified in the underwriting agreement. The underwriters reserve the right to withdraw, cancel or modify offers to the public and to reject orders in whole or in part.

We have granted the underwriters an over-allotment option. This option, which is exercisable for up to 45 days after the date of this prospectus, permits the underwriters to purchase a maximum of 525,000 additional shares and/or 525,000 warrants from us to cover over-allotments, if any. If the underwriters exercise all or part of this option, they will purchase shares and/or warrants covered by the option at the public offering price per share or warrant that appears on the cover page of this prospectus, less the underwriting discount. If this option is exercised in full, the total price to the public will be $16,140,250 and the total net proceeds, before expenses, to us will be $15,010,433.

We have agreed to indemnify the underwriters against specified liabilities, including liabilities under the Securities Act, and to contribute to payments the underwriters may be required to make in respect thereof.

### Discount

The following table shows the public offering price, underwriting discount and proceeds, before expenses, to us. The information assumes either no exercise or full exercise by the underwriters of their over-allotment option.

| | Per Share | Per Warrant | Total Without Over-Allotment Option | Total With Over-Allotment Option |
|---|---|---|---|---|
| Public offering price | $ 4.00 | $ 0.01 | $ 14,035,000 | 16,140,250 |
| Underwriting discount | $ 0.28 | $ 0.0007 | $ 982,450 | 1,129,818 |
| Proceeds, before expenses, to us | $ 3.72 | $ 0.0093 | $ 13,052,550 | 15,010,433 |

The underwriters propose to offer the shares and warrants offered by us to the public at the public offering price set forth on the cover of this prospectus. In addition, the underwriters may offer some of the shares and warrants to other securities dealers at such price less a concession of $0.16 per share. If all of the shares and warrants offered by us are not sold at the public offering price, the Representative may change the offering price and other selling terms by means of a supplement to this prospectus.

We have paid an expense deposit of $25,000 to the Representative, which will be applied against accountable expenses and reimbursed to us to the extent not actually incurred. The Representative will also be entitled to a non-accountable expense allowance of $140,350 or 1% of the offering proceeds (excluding the over-allotment option), that will be paid by us in connection with this offering. The Representative may share such non-accountable allowance with certain of the underwriters.

We have also agreed to pay the Representative's expenses relating to the offering, estimated to be $108,140.

We estimate that the total expenses of the offering payable by us, excluding the total underwriting discount, will be approximately $459,140.

**Discretionary Accounts**

The underwriters do not intend to confirm sales of the securities offered hereby to any accounts over which they have discretionary authority.

**Lock-Up Agreements**

Pursuant to certain "lock-up" agreements, we, our directors and officers and certain holders of 5% or more of our outstanding shares of common stock have agreed, for a period ending 90 days from the date of the final prospectus for the offering, not to (1) offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, encumber, grant any option, right or warrant to purchase, lend, or otherwise transfer or dispose of, directly or indirectly, any shares of our securities or any securities convertible into or exercisable or exchangeable for shares of our common stock owned or acquired on or prior to the closing date of this offering (including any shares of common stock acquired after the closing date of this offering upon the conversion, exercise or exchange of such securities); (2) file or caused to be filed any registration statement relating to the offering of any shares of our capital stock; or (3) enter into any swap or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of the common stock, whether any such transaction described in clause (1), (2) or (3) above is to be settled by delivery of common stock or such other securities, in cash or otherwise, except for certain exceptions and limitations.

The above restrictions do not apply to (i) shares sold in this offering, (ii) the issuance of stock options, restricted stock or other equity-based compensation awards under any employee benefit or equity incentive plan, (iii) the filing of a registration statement on Form S-8, and (iv) securities issued in connection with a transaction that includes a commercial relationship (including but not limited to joint ventures, marketing or distribution arrangements, option or collaboration agreements or intellectual property license agreements) or any acquisition of assets or not less than a majority or controlling portion of the equity of another entity; provided that the aggregate number of shares or securities issued pursuant to clause (v) does not exceed [10%] of the total number of outstanding shares of common stock immediately following the issuance and sale of the shares in this offering.

*Representative's Warrants*. We have agreed to issue to the representative warrants to purchase up to a total of 87,500 shares of common stock. The warrants will be exercisable at any time, and from time to time, in whole or in part, during the four-year period commencing one year from the effective date of the offering, which period shall not extend further than five years from the effective date of the offering in compliance with FINRA Rule 5110(f)(2)(H)(i). The warrants are exercisable at a per share price equal to $5.00. The warrants have been deemed compensation by FINRA and are therefore subject to a 180 day lock-up pursuant to Rule 5110(g)(1) of FINRA. The representative (or permitted assignees under Rule 5110(g)(1)) will not sell, transfer, assign, pledge, or hypothecate these warrants or the securities underlying these warrants, nor will they engage in any hedging, short sale, derivative, put, or call transaction that would result in the effective economic disposition of the warrants or the underlying securities for a period of 180 days from the effective date of the offering. In addition, the warrants provide for piggyback registration rights upon request, in certain cases. In addition, the warrants provide for one-time demand registration rights upon request, in certain cases. The demand registration right provided will not be greater than five years from the effective date of the offering in compliance with FINRA Rule 5110(f)(2)(H)(iv). The piggyback registration right provided will not be greater than seven years from the effective date of the offering in compliance with FINRA Rule 5110(f)(2)(H)(v). We will bear all fees and expenses attendant to registering the securities issuable on exercise of the warrants other

than underwriting commissions incurred and payable by the holders. The exercise price and number of shares issuable upon exercise of the warrants may be adjusted in certain circumstances including in the event of a stock dividend, extraordinary cash dividend or our recapitalization, reorganization, merger or consolidation. However, the warrant exercise price or underlying shares will not be adjusted for issuances of shares of common stock at a price below the warrant exercise price.

**Right of First Refusal**

Subject to certain limited exceptions, until twelve months from the effective date of this offering, the Representative has a right of first refusal to act as sole book-running manager for any public or private equity or public debt offerings in which we or any of our successors or subsidiaries may engage during that period.

**Electronic Offer, Sale and Distribution of Securities**

A prospectus in electronic format may be made available on the websites maintained by one or more of the underwriters or selling group members, if any, participating in this offering and one or more of the underwriters participating in this offering may distribute prospectuses electronically. The representative may agree to allocate a number of shares and warrants to underwriters and selling group members for sale to their online brokerage account holders. Internet distributions will be allocated by the underwriters and selling group members that will make internet distributions on the same basis as other allocations. Other than the prospectus in electronic format, the information on these websites is not part of, nor incorporated by reference into, this prospectus or the registration statement of which this prospectus forms a part, has not been approved or endorsed by us or any underwriter in its capacity as underwriter, and should not be relied upon by investors.

**Stabilization**

In connection with this offering, the underwriters may engage in stabilizing transactions, over-allotment transactions, syndicate-covering transactions, penalty bids and purchases to cover positions created by short sales.

- Stabilizing transactions permit bids to purchase securities so long as the stabilizing bids do not exceed a specified maximum, and are engaged in for the purpose of preventing or retarding a decline in the market price of the securities while the offering is in progress.
- Over-allotment transactions involve sales by the underwriters of securities in excess of the number of securities the underwriters are obligated to purchase. This creates a syndicate short position which may be either a covered short position or a naked short position. In a covered short position, the number of securities over-allotted by the underwriters is not greater than the number of securities that they may purchase in the over-allotment option. In a naked short position, the number of securities involved is greater than the number of securities in the over-allotment option. The underwriters may close out any short position by exercising their over-allotment option and/or purchasing securities in the open market.
- Syndicate covering transactions involve purchases of securities in the open market after the distribution has been completed in order to cover syndicate short positions. In determining the source of securities to close out the short position, the underwriters will consider, among other things, the price of securities available for purchase in the open market as compared with the price at which they may purchase securities through exercise of the over-allotment option. If the underwriters sell more securities than could be covered by exercise of the over-allotment option and, therefore, have a naked short position, the position can be closed out only by buying securities in the open market. A naked short position is more likely to be created if the underwriters are concerned that after pricing there could be downward pressure on the price of the securities in the open market that could adversely affect investors who purchase in the offering.
- Penalty bids permit the representative to reclaim a selling concession from a syndicate member when the s securities originally sold by that syndicate member are purchased in stabilizing or syndicate covering transactions to cover syndicate short positions.

These stabilizing transactions, syndicate covering transactions and penalty bids may have the effect of raising or maintaining the market price of our securities or preventing or retarding a decline in the market price of

our securities. As a result, the price of our securities in the open market may be higher than it would otherwise be in the absence of these transactions. Neither we nor the underwriters make any representation or prediction as to the effect that the transactions described above may have on the price of our securities. These transactions may be effected on The NASDAQ Capital Market, in the rest of the over-the-counter market or otherwise and, if commenced, may be discontinued at any time.

**Passive Market Making**

In connection with this offering, underwriters and selling group members may engage in passive market making transactions in our common stock and warrants on The NASDAQ Capital Market in accordance with Rule 103 of Regulation M under the Exchange Act, during a period before the commencement of offers or sales of the shares and extending through the completion of the distribution. A passive market maker must display its bid at a price not in excess of the highest independent bid of that security. However, if all independent bids are lowered below the passive market maker's bid, then that bid must then be lowered when specified purchase limits are exceeded.

**Other Relationships**

Certain of the underwriters and their affiliates may in the future provide various investment banking and other financial services for us and our affiliates for which they may in the future receive customary fees. However, except for the right of first refusal disclosed in this prospectus, we have no present arrangements with any of the underwriters for any further services.

**Offer Restrictions Outside the United States**

Other than in the United States, no action has been taken by us or the underwriters that would permit a public offering of the securities offered by this prospectus in any jurisdiction where action for that purpose is required. The securities offered by this prospectus may not be offered or sold, directly or indirectly, nor may this prospectus or any other offering material or advertisements in connection with the offer and sale of any such securities be distributed or published in any jurisdiction, except under circumstances that will result in compliance with the applicable rules and regulations of that jurisdiction. Persons into whose possession this prospectus comes are advised to inform themselves about and to observe any restrictions relating to the offering and the distribution of this prospectus. This prospectus does not constitute an offer to sell or a solicitation of an offer to buy any securities offered by this prospectus in any jurisdiction in which such an offer or a solicitation is unlawful.

***Australia***

This prospectus is not a disclosure document under Chapter 6D of the Australian Corporations Act, has not been lodged with the Australian Securities and Investments Commission and does not purport to include the information required of a disclosure document under Chapter 6D of the Australian Corporations Act. Accordingly, (i) the offer of the securities under this prospectus is only made to persons to whom it is lawful to offer the securities without disclosure under Chapter 6D of the Australian Corporations Act under one or more exemptions set out in section 708 of the Australian Corporations Act, (ii) this prospectus is made available in Australia only to those persons as set forth in clause (i) above, and (iii) the offeree must be sent a notice stating in substance that by accepting this offer, the offeree represents that the offeree is such a person as set forth in clause (i) above, and, unless permitted under the Australian Corporations Act, agrees not to sell or offer for sale within Australia any of the securities sold to the offeree within 12 months after its transfer for the offeree under this prospectus.

***China***

The information in this document does not constitute a public offer of the securities, whether by way of sale or subscription, in the People's Republic of China (excluding, for purposes of this paragraph, Hong Kong Special Administrative Region, Macau Special Administrative Region and Taiwan). The securities may not be offered or sold directly or indirectly in the PRC to legal or natural persons other than directly to "qualified domestic institutional investors."

***European Economic Area — Belgium, Luxembourg and Netherlands***

The information in this document has been prepared on the basis that all offers of common stock will be made pursuant to an exemption under the Directive 2003/71/EC ("Prospectus Directive"), as implemented in Member States of the European Economic Area (each, a "Relevant Member State"), from the requirement to produce a prospectus for offers of securities.

An offer to the public of common stock has not been made, and may not be made, in a Relevant Member State except pursuant to one of the following exemptions under the Prospectus Directive as implemented in that Relevant Member State:

(a) to legal entities that are authorized or regulated to operate in the financial markets or, if not so authorized or regulated, whose corporate purpose is solely to invest in securities;

(b) to any legal entity that has two or more of (i) an average of at least 250 employees during its last fiscal year; (ii) a total balance sheet of more than €43,000,000 (as shown on its last annual unconsolidated or consolidated financial statements) and (iii) an annual net turnover of more than €50,000,000 (as shown on its last annual unconsolidated or consolidated financial statement);

(c) to fewer than 100 natural or legal persons (other than qualified investors within the meaning of Article 2(1)I of the Prospectus Directive) subject to obtaining the prior consent of the Company or any underwriter for any such offer; or

(d) in any other circumstances falling within Article 3(2) of the Prospectus Directive, provided that no such offer of common stock shall result in a requirement for the publication by the Company of a prospectus pursuant to Article 3 of the Prospectus Directive.

***France***

This document is not being distributed in the context of a public offering of financial securities (offre au public de titres financiers) in France within the meaning of Article L.411-1 of the French Monetary and Financial Code (Code monétaire et financier) and Articles 211-1 et seq. of the General Regulation of the French Autorité des marchés financiers ("AMF"). The securities have not been offered or sold and will not be offered or sold, directly or indirectly, to the public in France.

This document and any other offering material relating to the securities have not been, and will not be, submitted to the AMF for approval in France and, accordingly, may not be distributed or caused to distributed, directly or indirectly, to the public in France.

Such offers, sales and distributions have been and shall only be made in France to (i) qualified investors (investisseurs qualifiés) acting for their own account, as defined in and in accordance with Articles L.411-2-II-2° and D.411-1 to D.411-3, D.744-1, D.754-1 and D.764-1 of the French Monetary and Financial Code and any implementing regulation and/or (ii) a restricted number of non-qualified investors (cercle restreint d'investisseurs) acting for their own account, as defined in and in accordance with Articles L.411-2-II-2° and D.411-4, D.744-1, D.754-1 and D.764-1 of the French Monetary and Financial Code and any implementing regulation.

Pursuant to Article 211-3 of the General Regulation of the AMF, investors in France are informed that the securities cannot be distributed (directly or indirectly) to the public by the investors otherwise than in accordance with Articles L.411-1, L.411-2, L.412-1 and L.621-8 to L.621-8-3 of the French Monetary and Financial Code.

***Ireland***

The information in this document does not constitute a prospectus under any Irish laws or regulations and this document has not been filed with or approved by any Irish regulatory authority as the information has not been prepared in the context of a public offering of securities in Ireland within the meaning of the Irish Prospectus (Directive 2003/71/EC) Regulations 2005 (the "Prospectus Regulations"). The securities have not been offered or sold, and will not be offered, sold or delivered directly or indirectly in Ireland by way of a public offering, except to (i) qualified investors as defined in Regulation 2(l) of the Prospectus Regulations and (ii) fewer than 100 natural or legal persons who are not qualified investors.

***Israel***

The securities offered by this prospectus have not been approved or disapproved by the Israeli Securities Authority, or the ISA, nor have such securities been registered for sale in Israel. The shares may not be offered or sold, directly or indirectly, to the public in Israel, absent the publication of a prospectus. The ISA has not issued permits, approvals or licenses in connection with the offering or publishing the prospectus; nor has it authenticated the details included herein, confirmed their reliability or completeness, or rendered an opinion as to the quality of the securities being offered. Any resale in Israel, directly or indirectly, to the public of the securities offered by this prospectus is subject to restrictions on transferability and must be effected only in compliance with the Israeli securities laws and regulations.

***Italy***

The offering of the securities in the Republic of Italy has not been authorized by the Italian Securities and Exchange Commission (Commissione Nazionale per le Società e la Borsa, "CONSOB") pursuant to the Italian securities legislation and, accordingly, no offering material relating to the securities may be distributed in Italy and such securities may not be offered or sold in Italy in a public offer within the meaning of Article 1.1(t) of Legislative Decree No. 58 of 24 February 1998 ("Decree No. 58"), other than:

- to Italian qualified investors, as defined in Article 100 of Decree no. 58 by reference to Article 34-ter of CONSOB Regulation no. 11971 of 14 May 1999 ("Regulation no. 1197l") as amended ("Qualified Investors"); and
- in other circumstances that are exempt from the rules on public offer pursuant to Article 100 of Decree No. 58 and Article 34-ter of Regulation No. 11971 as amended.

Any offer, sale or delivery of the securities or distribution of any offer document relating to the securities in Italy (excluding placements where a Qualified Investor solicits an offer from the issuer) under the paragraphs above must be:

- made by investment firms, banks or financial intermediaries permitted to conduct such activities in Italy in accordance with Legislative Decree No. 385 of 1 September 1993 (as amended), Decree No. 58, CONSOB Regulation No. 16190 of 29 October 2007 and any other applicable laws; and
- in compliance with all relevant Italian securities, tax and exchange controls and any other applicable laws.

Any subsequent distribution of the securities in Italy must be made in compliance with the public offer and prospectus requirement rules provided under Decree No. 58 and the Regulation No. 11971 as amended, unless an exception from those rules applies. Failure to comply with such rules may result in the sale of such securities being declared null and void and in the liability of the entity transferring the securities for any damages suffered by the investors.

***Japan***

The securities have not been and will not be registered under Article 4, paragraph 1 of the Financial Instruments and Exchange Law of Japan (Law No. 25 of 1948), as amended (the "FIEL") pursuant to an exemption from the registration requirements applicable to a private placement of securities to Qualified Institutional Investors (as defined in and in accordance with Article 2, paragraph 3 of the FIEL and the regulations promulgated thereunder). Accordingly, the securities may not be offered or sold, directly or indirectly, in Japan or to, or for the benefit of, any resident of Japan other than Qualified Institutional Investors. Any Qualified Institutional Investor who acquires securities may not resell them to any person in Japan that is not a Qualified Institutional Investor, and acquisition by any such person of securities is conditional upon the execution of an agreement to that effect.

***Portugal***

This document is not being distributed in the context of a public offer of financial securities (oferta pública de valores mobiliários) in Portugal, within the meaning of Article 109 of the Portuguese Securities Code (Código dos Valores Mobiliários). The securities have not been offered or sold and will not be offered or sold, directly or indirectly, to the public in Portugal. This document and any other offering material relating to the securities

have not been, and will not be, submitted to the Portuguese Securities Market Commission (Comissão do Mercado de Valores Mobiliários) for approval in Portugal and, accordingly, may not be distributed or caused to distributed, directly or indirectly, to the public in Portugal, other than under circumstances that are deemed not to qualify as a public offer under the Portuguese Securities Code. Such offers, sales and distributions of securities in Portugal are limited to persons who are "qualified investors" (as defined in the Portuguese Securities Code). Only such investors may receive this document and they may not distribute it or the information contained in it to any other person.

***Sweden***

This document has not been, and will not be, registered with or approved by Finansinspektionen (the Swedish Financial Supervisory Authority). Accordingly, this document may not be made available, nor may the securities be offered for sale in Sweden, other than under circumstances that are deemed not to require a prospectus under the Swedish Financial Instruments Trading Act (1991:980) (Sw. lag (1991:980) om handel med finansiella instrument). Any offering of securities in Sweden is limited to persons who are "qualified investors" (as defined in the Financial Instruments Trading Act). Only such investors may receive this document and they may not distribute it or the information contained in it to any other person.

***Switzerland***

The securities may not be publicly offered in Switzerland and will not be listed on the SIX Swiss Exchange ("SIX") or on any other stock exchange or regulated trading facility in Switzerland. This document has been prepared without regard to the disclosure standards for issuance prospectuses under art. 652a or art. 1156 of the Swiss Code of Obligations or the disclosure standards for listing prospectuses under art. 27 ff. of the SIX Listing Rules or the listing rules of any other stock exchange or regulated trading facility in Switzerland. Neither this document nor any other offering material relating to the securities may be publicly distributed or otherwise made publicly available in Switzerland.

Neither this document nor any other offering material relating to the securities have been or will be filed with or approved by any Swiss regulatory authority. In particular, this document will not be filed with, and the offer of securities will not be supervised by, the Swiss Financial Market Supervisory Authority.

This document is personal to the recipient only and not for general circulation in Switzerland.

***United Arab Emirates***

Neither this document nor the securities have been approved, disapproved or passed on in any way by the Central Bank of the United Arab Emirates or any other governmental authority in the United Arab Emirates, nor has the Company received authorization or licensing from the Central Bank of the United Arab Emirates or any other governmental authority in the United Arab Emirates to market or sell the securities within the United Arab Emirates. This document does not constitute and may not be used for the purpose of an offer or invitation. No services relating to the securities, including the receipt of applications and/or the allotment or redemption of such shares, may be rendered within the United Arab Emirates by the Company.

No offer or invitation to subscribe for securities is valid or permitted in the Dubai International Financial Centre.

***United Kingdom***

Neither the information in this document nor any other document relating to the offer has been delivered for approval to the Financial Services Authority in the United Kingdom and no prospectus (within the meaning of section 85 of the Financial Services and Markets Act 2000, as amended ("FSMA")) has been published or is intended to be published in respect of the securities. This document is issued on a confidential basis to "qualified investors" (within the meaning of section 86(7) of FSMA) in the United Kingdom, and the securities may not be offered or sold in the United Kingdom by means of this document, any accompanying letter or any other document, except in circumstances which do not require the publication of a prospectus pursuant to section 86(1) FSMA.

This document should not be distributed, published or reproduced, in whole or in part, nor may its contents be disclosed by recipients to any other person in the United Kingdom.

Any invitation or inducement to engage in investment activity (within the meaning of section 21 of FSMA) received in connection with the issue or sale of the securities has only been communicated or caused to be communicated and will only be communicated or caused to be communicated in the United Kingdom in circumstances in which section 21(1) of FSMA does not apply to us.

In the United Kingdom, this document is being distributed only to, and is directed at, persons (i) who have professional experience in matters relating to investments falling within Article 19(5) (investment professionals) of the Financial Services and Markets Act 2000 (Financial Promotions) Order 2005 ("FPO"), (ii) who fall within the categories of persons referred to in Article 49(2)(a) to (d) (high net worth companies, unincorporated associations, etc.) of the FPO or (iii) to whom it may otherwise be lawfully communicated (together "relevant persons"). The investments to which this document relates are available only to, and any invitation, offer or agreement to purchase will be engaged in only with, relevant persons. Any person who is not a relevant person should not act or rely on this document or any of its contents.

Each of our executive officers and directors reside in and are citizens of the United States.

## EXPERTS

The consolidated financial statements of PlasmaTech (formerly Access Pharmaceuticals, Inc.) for the years ended December 31, 2013 and 2012 included in this prospectus, and included in the Registration Statement, were audited by Whitley Penn LLP, an independent registered public accounting firm, as stated in their report appearing with the consolidated financial statements herein and included in this Registration Statement, and are included in reliance upon the report of such firm given upon their authority as experts in accounting and auditing.

The independent registered public accounting firm named above has no interest in the prospectus.

## LEGAL MATTERS

Morgan, Lewis & Bockius LLP will pass upon the validity of the securities offered hereby. Several partners and attorneys of Morgan, Lewis & Bockius LLP are also shareholders of PlasmaTech. Certain legal matters related to the offering will be passed upon for the underwriters by Sichenzia Ross Friedman Ference LLP, New York, New York.

## WHERE YOU CAN FIND MORE INFORMATION

We have filed with the Securities and Exchange Commission, Washington, D.C. 20549, under the Securities Act of 1933, a registration statement on Form S-1 relating to the shares of common stock and warrants offered hereby. This prospectus does not contain all of the information set forth in the registration statement and the exhibits and schedules thereto. For further information with respect to our company and the shares and warrants we are offering by this prospectus you should refer to the registration statement, including the exhibits and schedules thereto. You may inspect a copy of the registration statement without charge at the Public Reference Section of the Securities and Exchange Commission at Room 1024, 450 Fifth Street, N.W., Washington, D.C. 20549. The public may obtain information on the operation of the Public Reference Room by calling the Securities and Exchange Commission. The Securities and Exchange Commission also maintains an Internet site that contains reports, proxy and information statements and other information regarding registrants that file electronically with the Securities and Exchange Commission. The Securities and Exchange Commission's World Wide Web address is *http://www.sec.gov*.

We file periodic reports, proxy statements and other information with the Securities and Exchange Commission in accordance with requirements of the Exchange Act. These periodic reports, proxy statements and other information are available for inspection and copying at the regional offices, public reference facilities and Internet site of the Securities and Exchange Commission referred to above.

Information contained on our website is not a prospectus and does not constitute a part of this prospectus.

You should rely only on the information contained in or provided in this prospectus. We have not authorized anyone else to provide you with different information. We are not making an offer of these securities in any state where the offer is not permitted. You should not assume the information in this prospectus is accurate as of any date other than the date on the front of this prospectus.

**INDEX TO THE FINANCIAL STATEMENTS**
**PLASMATECH BIOPHARMACEUTICALS, INC.**

## Report of Independent Registered Public Accounting Firm

To the Board of Directors and Stockholders of
PlasmaTech Biopharmaceuticals, Inc.

We have audited the accompanying consolidated balance sheets of PlasmaTech Biopharmaceuticals, Inc. (formerly Access Pharmaceuticals, Inc.) and subsidiaries, as of December 31, 2013 and 2012, and the related consolidated statements of operations, stockholders' deficit, and cash flows for the years then ended. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. An audit includes consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the consolidated financial position of PlasmaTech Biopharmaceuticals, Inc. and subsidiaries as of December 31, 2013 and 2012, and the consolidated results of their operations and their cash flows for the years then ended in conformity with accounting principles generally accepted in the United States of America.

The accompanying consolidated financial statements have been prepared assuming that the Company will continue as a going concern. As discussed in Note 2 to the consolidated financial statements, the Company has had recurring losses from operations, negative cash flows from operating activities and has an accumulated deficit. Management's plans in regard to these matters are also described in Note 2. These conditions raise substantial doubt about the Company's ability to continue as a going concern. These consolidated financial statements do not include any adjustments to reflect the possible future effects on the recoverability and classification of assets or the amounts and classification of liabilities that may result from the outcome of this uncertainty.

/s/ WHITLEY PENN LLP

Dallas, Texas
March 26, 2014, except for Note 1 as it relates to Reverse Stock Split and Note 13, Subsequent Events, as to which the date is October 24, 2014.

**PlasmaTech Biopharmaceuticals, Inc. and Subsidiaries**

**CONSOLIDATED BALANCE SHEETS**

| | December 31, 2013 | December 31, 2012 |
|---|---|---|
| ASSETS | | |
| Current assets | | |
| Cash and cash equivalents | $ 424,000 | $ 396,000 |
| Receivables | 74,000 | 840,000 |
| Inventory | — | 194,000 |
| Prepaid expenses and other current assets | 77,000 | 251,000 |
| Total current assets | 575,000 | 1,681,000 |
| Property and equipment, net | 6,000 | 7,000 |
| Other assets | 32,000 | 42,000 |
| Total assets | $ 613,000 | $ 1,730,000 |
| LIABILITIES AND STOCKHOLDERS' DEFICIT | | |
| Current liabilities | | |
| Accounts payable | $ 863,000 | $ 2,039,000 |
| Accrued expenses | 857,000 | 857,000 |
| Dividends payable | 6,663,000 | 3,486,000 |
| Current portion of deferred revenue | 578,000 | 247,000 |
| Total current liabilities | 8,961,000 | 6,629,000 |
| Derivative liability – warrants | — | 271,000 |
| Derivative liability – preferred stock | 1,190,000 | 9,200,000 |
| Long-term deferred revenue | 5,241,000 | 2,706,000 |
| Total liabilities | 15,392,000 | 18,806,000 |
| Commitments and contingencies | | |
| Stockholders' deficit | | |
| Convertible preferred stock A – $.01 par value; authorized 2,000,000 shares; 2,903.3617 issued at December 31, 2013; 2,913.3617 issued at December 31, 2012 | — | — |
| Convertible preferred stock B – $.01 par value; authorized 2,000,000 shares; 1,000 issued at December 31, 2013 and December 31, 2012 | — | — |
| Common stock – $.01 par value; authorized 200,000,000 shares; issued 514,589 at December 31, 2013; issued 494,647 at December 31, 2012 | 6,000 | 6,000 |
| Additional paid-in capital | 251,640,000 | 250,894,000 |
| Treasury stock, at cost – 4 shares | (4,000) | (4,000) |
| Accumulated deficit | (266,421,000) | (267,972,000) |
| Total stockholders' deficit | (14,779,000) | (17,076,000) |
| Total liabilities and stockholders' deficit | $ 613,000 | $ 1,730,000 |

The accompanying notes are an integral part of these consolidated statements.

**PlasmaTech Biopharmaceuticals, Inc. and Subsidiaries**

**CONSOLIDATED STATEMENTS OF OPERATIONS**

| | For the year ended December 31, | |
|---|---|---|
| | **2013** | **2012** |
| Revenues | | |
| Product sales | $ 1,529,000 | $ 2,865,000 |
| License revenues | 435,000 | 1,446,000 |
| Royalties | 78,000 | 93,000 |
| Total revenues | 2,042,000 | 4,404,000 |
| Expenses | | |
| Research and development | 884,000 | 2,010,000 |
| Product costs | 125,000 | 267,000 |
| Selling, general and administrative | 4,834,000 | 6,024,000 |
| Depreciation and amortization | 3,000 | 419,000 |
| Total expenses | 5,846,000 | 8,720,000 |
| Loss from operations | (3,804,000) | (4,316,000) |
| Interest and miscellaneous income | 251,000 | 242,000 |
| Interest and other expense | (279,000) | (608,000) |
| Warrant extension expense | — | (2,316,000) |
| Gain on change in fair value of derivative – warrants | 271,000 | 1,236,000 |
| Gain (loss) on change in fair value of derivative – preferred stock | 8,010,000 | (4,770,000) |
| | 8,253,000 | (6,216,000) |
| Net income (loss) | 4,449,000 | (10,532,000) |
| Less preferred stock dividends | (2,898,000) | (1,999,000) |
| Net income (loss) allocable to common stockholders | $ 1,551,000 | $ (12,531,000) |
| Net income (loss) per common share | | |
| Basic | $ 3.07 | $ (25.91) |
| Diluted | $ 3.04 | $ (25.91) |
| Weighted average number of common shares outstanding | | |
| Basic | 504,864 | 483,576 |
| Diluted | 509,479 | 483,576 |

The accompanying notes are an integral part of these consolidated statements.

## PlasmaTech Biopharmaceuticals, Inc. and Subsidiaries

## CONSOLIDATED STATEMENTS OF STOCKHOLDERS' DEFICIT

| | Common Stock | | Preferred Stock – A | | Preferred Stock – B | | Additional paid-in capital | Treasury stock | Accumulated deficit |
|---|---|---|---|---|---|---|---|---|---|
| | Shares | Amount | Shares | Amount | Shares | Amount | | | |
| Balance, December 31, 2011 | 477,816 | $5,000 | 2,938.3617 | $ — | — | $ — | $237,834,000 | $(4,000) | $(255,441,000) |
| Restricted common stock issued for services | 400 | — | — | — | — | — | 27,000 | — | — |
| Common stock issued for services | 1,618 | — | — | — | — | — | 40,000 | — | — |
| Warrants issued for services | — | — | — | — | — | — | 10,000 | — | — |
| Common stock issued to directors and employees | 4,450 | — | — | — | — | — | 305,000 | — | — |
| Preferred stock converted into common stock | 10,000 | 1,000 | (25.0000) | — | — | — | (1,000) | — | — |
| Common stock issued for preferred dividends | 363 | — | — | — | — | — | 22,000 | — | — |
| Stock option compensation expense | — | — | — | — | — | — | 390,000 | — | — |
| Preferred stock issued $0.50 share, net of costs | — | — | — | — | 470.27 | — | 4,654,000 | — | — |
| Preferred stock issued $0.50 share in exchange of dividends payable | — | — | — | — | 529.73 | — | 5,297,000 | — | — |
| Warrant extension expense | — | — | — | — | — | — | 2,316,000 | | |
| Preferred dividends | — | — | — | — | — | — | — | — | (1,999,000) |
| Net loss | — | — | — | — | — | — | — | — | (10,532,000) |
| Balance, December 31, 2012 | 494,647 | $6,000 | 2,913.3617 | — | 1,000.00 | — | 250,894,000 | (4,000) | (267,972,000) |
| Common stock issued for services | 4,852 | — | — | — | — | — | 111,000 | — | — |
| Common stock issued to directors and employees | 8,590 | — | — | — | — | — | 167,000 | — | — |
| Common stock issued for cash exercise of options | 2,500 | — | — | — | — | — | 29,000 | | |
| Preferred stock converted into common stock | 4,000 | — | (10.0000) | — | — | — | — | — | — |
| Stock option compensation expense | — | — | — | — | — | — | 439,000 | — | — |
| Preferred dividends | — | — | — | — | — | — | — | — | (2,898,000) |
| Net income | — | — | — | — | — | — | — | — | 4,449,000 |
| Balance, December 31, 2013 | 514,589 | $6,000 | 2,903.3617 | $ — | 1,000.00 | $ — | $251,640,000 | $(4,000) | $(266,421,000) |

The accompanying notes are an integral part of these consolidated statements.

**PlasmaTech Biopharmaceuticals, Inc. and Subsidiaries**

**CONSOLIDATED STATEMENTS OF CASH FLOWS**

| | Year ended December 31, | |
|---|---|---|
| | 2013 | 2012 |
| Cash flows from operating activities: | | |
| Net income (loss) | $ 4,449,000 | $ (10,532,000) |
| Adjustments to reconcile net income (loss) to net cash Provided by (used in) operating activities: | | |
| (Gain) on change in fair value of derivative – warrants | (271,000) | (1,236,000) |
| (Gain) loss on change in fair value of derivative – preferred stock | (8,010,000) | 4,770,000 |
| Warrant extension expense | — | 2,316,000 |
| Gain on negotiated payables | — | (241,000) |
| Depreciation and amortization | 3,000 | 419,000 |
| Stock option compensation expense | 439,000 | 390,000 |
| Stock issued to directors and employees | 167,000 | 305,000 |
| Stock and warrants issued for services | 111,000 | 77,000 |
| Change in operating assets and liabilities: | | |
| Receivables | 766,000 | (507,000) |
| Inventory | 194,000 | (43,000) |
| Prepaid expenses and other current assets | 174,000 | (212,000) |
| Restricted cash | — | 330,000 |
| Other assets | 10,000 | 17,000 |
| Accounts payable and accrued expenses | (1,176,000) | 567,000 |
| Dividends payable | 279,000 | 319,000 |
| Accrued interest payable | — | (98,000) |
| Deferred revenue | 2,866,000 | (596,000) |
| Net cash provided by (used in) operating activities | 1,000 | (3,955,000) |
| Cash flows from investing activities: | | |
| Capital expenditures | (2,000) | (13,000) |
| Net cash used in investing activities | (2,000) | (13,000) |
| Cash flows from financing activities: | | |
| Payment of debt | — | (2,750,000) |
| Proceeds from exercise of stock options | 29,000 | — |
| Proceeds from preferred stock issuances, net of costs | — | 4,654,000 |
| Net cash provided by financing activities | 29,000 | 1,904,000 |
| Net increase (decrease) in cash and cash equivalents | 28,000 | (2,064,000) |
| Cash and cash equivalents at beginning of year | 396,000 | 2,460,000 |
| Cash and cash equivalents at end of year | $ 424,000 | $ 396,000 |
| *Supplemental cash flow information:* | | |
| *Cash paid for interest* | *$ —* | *$ 388,000* |
| *Supplemental disclosure of noncash transactions* | | |
| *Shares issued for dividends on preferred stock* | *—* | *22,000* |
| *Preferred stock dividends in dividends payable* | *2,898,000* | *1,999,000* |
| *Dividends payable exchanged for preferred stock* | *—* | *5,297,000* |

The accompanying notes are an integral part of these consolidated statements.

**PlasmaTech Biopharmaceuticals, Inc. and Subsidiaries**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**
**Two years ended December 31, 2013**

## NOTE 1 — NATURE OF OPERATIONS AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Nature of Operations

PlasmaTech Biopharmaceuticals, Inc. (formerly Access Pharmaceuticals, Inc.) (the "Company", "we", "our", or "PlasmaTech") is an emerging pharmaceutical company engaged in the development of novel therapeutics for the treatment of cancer and supportive care of cancer patients. This development work is based primarily on the adaptation of existing therapeutic agents using the Company's proprietary drug delivery technology. Our efforts have been principally devoted to research and development, resulting in significant losses.

Certain amounts have been reclassified to conform with current period classification.

A summary of the significant accounting policies applied in the preparation of the accompanying consolidated financial statements follows.

Reverse Stock Split

All per share information reflect a one for fifty reverse stock split of our outstanding common stock effected October 24, 2014. Accordingly, all shares and per share amounts were retroactively adjusted to reflect this reverse split, including adjustments for common stock par value and additional paid-in capital.

Principles of Consolidation

The consolidated financial statements include the financial statements of PlasmaTech Biopharmaceuticals, Inc. and our wholly-owned subsidiaries. All intercompany balances and transactions have been eliminated in consolidation.

Use of Estimates

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

Segments

The Company operates in a single segment.

Cash and Cash Equivalents

We consider all highly liquid investments with a maturity of three months or less when purchased to be cash equivalents. At December 31, 2013 and 2012, we had no such investments. We maintain deposits primarily in two financial institutions, which may at times exceed amounts covered by insurance provided by the U.S. Federal Deposit Insurance Corporation (FDIC). We have not experienced any losses related to amounts in excess of FDIC limits.

Receivables

Receivables are reported in the balance sheets at the outstanding amount net of an allowance for doubtful accounts. We continually evaluate the creditworthiness of our customers and their financial condition and generally do not require collateral. The allowance for doubtful accounts is based upon reviews of specific customer balances, historic losses, and general economic conditions. As of December 31, 2013 and 2012, no allowance was recorded as all accounts are considered collectible.

Property and Equipment

Property and equipment are recorded at cost. Depreciation is provided using the straight-line method over estimated useful lives ranging from three to seven years. Expenditures for major renewals and betterments that extend the useful lives are capitalized. Expenditures for normal maintenance and repairs are expensed as

**PlasmaTech Biopharmaceuticals, Inc. and Subsidiaries**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**
**Two years ended December 31, 2013**

**NOTE 1 — NATURE OF OPERATIONS AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES - (continued)**

incurred. The cost of assets sold or abandoned and the related accumulated depreciation are eliminated from the accounts and any gains or losses are recognized in the accompanying consolidated statements of operations of the respective period.

Product Sales and Allowances

We sold MuGard to wholesalers, and specialty and retail pharmacies. We began shipping to customers in September 2010 through June 6, 2013 when we licensed MuGard to AMAG Pharmaceuticals. Since June 6, 2013 we receive royalties from AMAG Pharmaceuticals for their sales of MuGard. We recognized revenue for MuGard product sales at the time title transferred to our customers, which occurred at the time product was shipped to our customers.

We recognized product sales allowances as a reduction of product sales in the same period the related revenue was recognized. Product sales allowances were based on amounts owed or to be claimed on the related sales. These estimates take into consideration the terms of our agreements with customers, rebates or discounts taken. If actual future results varied from our estimates, we may have needed to adjust these estimates, which could have had an effect on product sales and earnings in the period of adjustment. Our product sales allowances included:

- Wholesaler and Specialty and Retail Pharmacy Discounts — we offered contractually determined discounts to certain wholesale distributors and specialty and retail pharmacies that purchase directly from us. These discounts are either taken off the invoice at the time of shipment or paid to the customer on a monthly or quarterly basis.
- Prompt Pay Discounts — we offered cash discounts to our customers, generally 2% of the sales price, as an incentive for prompt payment. Based on our experience many of the customers comply with the payment terms to earn the cash discount.
- Patient Discount Programs — we offered discount card programs in which patients receive certain discounts off their prescription.
- Managed Care Rebates — we offered discounts under contracts with certain managed care providers who do not purchase directly from us.

We believe our estimates related to gross-to-net sales adjustments for MuGard do not have a high degree of estimation complexity or uncertainty as the related amounts were settled within a short period of time.

Below is a table showing gross sales and net sales by quarter for the years ended December 31, 2013 and 2012.

| (in thousands) | Three months ended March 31, 2013 | Three months ended June 30, 2013 | Three months ended Sept 30, 2013 | Three months ended Dec 31, 2013 | Twelve months ended Dec 31, 2013 |
|---|---|---|---|---|---|
| Gross sales | $ 1,255 | $ 508 | $ — | $ — | $ 1,763 |
| Cash discounts | 10 | 36 | — | 5 | 51 |
| Contract discounts | 83 | 92 | — | 8 | 183 |
| Net sales | $ 1,162 | $ 380 | $ — | $ (13) | $ 1,529 |

**PlasmaTech Biopharmaceuticals, Inc. and Subsidiaries**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**
**Two years ended December 31, 2013**

**NOTE 1 — NATURE OF OPERATIONS AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES - (continued)**

| | Three months ended March 31, 2012 | Three months ended June 30, 2012 | Three months ended Sept 30, 2012 | Three months ended Dec 31, 2012 | Twelve months ended Dec 31, 2012 |
|---|---|---|---|---|---|
| Gross sales | $ 577 | $ 712 | $ 877 | $ 1,048 | $ 3,214 |
| Cash discounts | 5 | 13 | 7 | 9 | 34 |
| Contract discounts | 18 | 84 | 89 | 124 | 315 |
| Net sales | $ 554 | $ 615 | $ 781 | $ 915 | $ 2,865 |

License Revenues and Royalties

Our revenues are generated from licensing, research and development agreements, royalties and product sales. We recognize revenue in accordance with SEC Staff Accounting Bulletin No. 104 (SAB 104), *Revenue Recognition*. License revenue is recognized over the remaining life of the underlying patent.

Research and development revenues are recognized as services are performed. Royalties are recognized in the period of sales.

Research and Development Expenses

Research and development costs are expensed as incurred. Research and development expenses include, but are not limited to, payroll and personnel expense, lab supplies, preclinical, development cost, clinical trial expense, outside manufacturing and consulting. The cost of materials and equipment or facilities that are acquired for research and development activities and that have alternative future uses are capitalized when acquired.

Cost of product sales

Cost of product sales consists of costs of the contract manufacturing, product costs and packaging costs, product quality testing, distribution costs and shipping costs related to our product sales of MuGard.

Selling, general and administrative expense

Selling, general and administrative expenses primarily consist of personnel, contract personnel, marketing and promotion expenses associated with MuGard, personnel expenses to support our administrative and operating activities, facility costs and professional expenses (i.e., legal expenses), and investor relations fees.

Other Income

In 2013 and 2012, we recognized miscellaneous income of $251,000 and $242,000, respectively, due to sales of platinum and monomers and write-offs and settlements of other accounts payable.

Fair Value of Financial Instruments

We calculate the fair value of our assets and liabilities which qualify as financial instruments and include additional information in the notes to the consolidated financial statements when the fair value is different than the carrying value of these financial instruments. The estimated fair value of accounts receivable, accounts payable and accrued expenses and dividends payable approximate their carrying amounts due to the relatively short maturity of these instruments.

We consider the conversion options and warrants related to our Series A Cumulative Convertible Preferred Stock to be derivatives, and we record the fair value of the derivative liabilities in our consolidated balance sheets. Changes in the fair value of the derivative liabilities are included in gain or loss on change in fair value of derivative in the consolidated statements of operations.

**PlasmaTech Biopharmaceuticals, Inc. and Subsidiaries**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**
**Two years ended December 31, 2013**

**NOTE 1 — NATURE OF OPERATIONS AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES - (continued)**

Income Taxes

Income taxes are accounted for under the asset and liability method. Deferred tax assets and liabilities are recognized for the future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases and operating loss and tax credit carryforwards. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in income in the period that includes the enactment date. A valuation allowance is provided for deferred tax assets to the extent their realization is in doubt.

We account for uncertain income tax positions in accordance with FASB ASC 740, *Income Taxes*. Interest costs and penalties related to income taxes are classified as interest expense and general and administrative costs, respectively, in our consolidated financial statements. For the years ended December 31, 2013 and 2012, we did not recognize any uncertain tax positions or interest or penalty expense related to income taxes. It is determined not to be reasonably likely for the amounts of unrecognized tax benefits to significantly increase or decrease within the next 12 months. We are currently subject to a three year statute of limitations by major tax jurisdictions. We and our subsidiaries file income tax returns in the U.S. federal jurisdiction.

Income (Loss) Per Share

We have presented basic income (loss) per share, computed on the basis of the weighted average number of common shares outstanding during the year, and diluted income (loss) per share, computed on the basis of the weighted average number of common shares and all dilutive potential common shares outstanding during the year. Potential common shares result from stock options, preferred stock and warrants. Common equivalent shares have not been included in the net loss per share calculations for year ended December 31, 2012 because the effect of including them would have been anti-dilutive.

Basic and diluted net income (loss) per share were determined as follows:

(in thousands, except share and per share amounts)

| | For the year ended December 31, | |
|---|---|---|
| | 2013 | 2012 |
| Net income (loss) | $ 1,551 | $ (12,531) |
| Weighted average shares outstanding | 504,864 | 483,576 |
| Basic net income (loss) per common share | $ 3.07 | $ (25.91) |
| Net income (loss) | $ 1,551 | $ (12,531) |
| Weighted average shares outstanding | 504,864 | 483,576 |
| Effect of dilutive options and warrants | 4,615 | — |
| Weighted average shares outstanding assuming dilution | 509,479 | 483,576 |
| Diluted net income (loss) per common share | $ 3.04 | $ (25.91) |

**PlasmaTech Biopharmaceuticals, Inc. and Subsidiaries**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**
**Two years ended December 31, 2013**

**NOTE 1 — NATURE OF OPERATIONS AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES - (continued)**

We did not include the following securities in the table below in the computation of diluted net income (loss) per common share because the securities were anti-dilutive during the periods presented:

| | For the year ended December 31, | |
|---|---|---|
| | 2013 | 2012 |
| Warrants | 637,640 | 714,679 |
| Stock options | 18,834 | 54,066 |
| Preferred stock Series A | 1,161,348 | 1,165,348 |
| Preferred stock Series B | 400,000 | 400,000 |
| Total | 2,217,822 | 2,334,093 |

Stock-Based Compensation

We account for stock based compensation expense in accordance with FASB ASC 718, *Stock Based Compensation*. We have several stock-based compensation plans under which incentive and non-incentive qualified stock options and restricted shares may be granted to employees, directors and consultants. We measure the cost of the employee/director/consultant services received in exchange for an award of equity instruments based on the grant date fair value of the award. We use the Black-Scholes option pricing model to value our options.

During 2013 and 2012, no stock options and 24,700 stock options, respectively, were granted under the 2005 Equity Incentive Plan. Assumptions for 2012 are:

| | 2012 |
|---|---|
| Expected volatility assumption was based upon a combination of historical stock price volatility measured on a weekly basis and is considered a reasonable indicator of expected volatility. | 98% |
| Risk-free interest rate assumption is based upon U.S. Treasury bond interest rates appropriate for the term of the our employee stock options. | 0.45% |
| Dividend yield assumption is based on our history and expectation of dividend payments. | None |
| Estimated expected term (average of number years) is based on the simplified method as prescribed by SAB 107/110 as we do not have sufficient information to calculate an expected term. | 5.5 years |

At December 31, 2013, the balance of unearned stock-based compensation to be expensed in future periods related to unvested share-based awards, as adjusted for expected forfeitures, is approximately $53,000. The weighted-average period over which the unearned stock-based compensation is expected to be recognized is approximately three years. We anticipate that we will grant additional share-based awards to employees and consultants in the future, which will increase our stock-based compensation expense by the additional unearned compensation resulting from these grants.

The following table summarizes stock-based compensation for the years ended December 31, 2013 and 2012 which was allocated as follows (in thousands):

| | Year ended December 31, 2013 | Year ended December 31, 2012 |
|---|---|---|
| Research and development | $ 31 | $ 93 |
| General and administrative | 408 | 297 |

**PlasmaTech Biopharmaceuticals, Inc. and Subsidiaries**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**
**Two years ended December 31, 2013**

**NOTE 1 — NATURE OF OPERATIONS AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES - (continued)**

| | Year ended December 31, 2013 | Year ended December 31, 2012 |
|---|---|---|
| Stock-based compensation expense included in operating expense | 439 | 390 |
| Total stock-based compensation expense | 439 | 390 |
| Tax benefit | — | — |
| Stock-based compensation expense, net of tax | $ 439 | $ 390 |

**NOTE 2 — LIQUIDITY**

The accompanying consolidated financial statements have been prepared assuming that we are a going concern. We have incurred negative cash flows from operations since inception, and have expended, and expect to continue to expend in the future, substantial funds to complete our planned product development efforts. Since inception, our expenses have significantly exceeded revenues, resulting in an accumulated deficit as of December 31, 2013 of $266,421,000. We expect that our capital resources, revenues from MuGard royalties and expected receipts due under our license agreements will be adequate to fund our current level of operations for the next twelve months. However, our ability to fund operations over this time could change significantly depending upon changes to future operational funding obligations or capital expenditures. As a result, we are required to seek additional financing sources within the next twelve months. We cannot assure you that we will ever be able to generate significant product revenue or achieve or sustain profitability.

Management believes that our current cash, royalties and expected license fees should fund our expected burn rate for the next twelve months. We will require additional funds to support ongoing and planned operations. These funds are expected to come from the future sales of equity and/or license agreements.

**NOTE 3 — RELATED PARTY TRANSACTIONS**

On occasion we may engage in certain related party transactions. Pursuant to our Audit Committee charter, our policy is that all related party transactions are reviewed and approved by the Audit Committee prior to our entering into any related party transactions.

In the event SCO Capital Partners LLC (SCO) and its affiliates were to convert all of their shares of Series A Preferred Stock, Series B Preferred Stock and exercise all of their warrants, they would own approximately 70.5% of the voting securities of PlasmaTech. During 2013 and 2012, SCO and affiliates charged $300,000 each year in investor relations fees.

In connection with the sale and issuance of Series A Preferred Stock and warrants, we entered into a Director Designation Agreement whereby we agreed to continue SCO's right to designate two individuals to serve on the Board of Directors of PlasmaTech.

**NOTE 4 — PROPERTY AND EQUIPMENT**

Property and equipment consists of the following:

| | December 31, | |
|---|---|---|
| | 2013 | 2012 |
| Laboratory equipment | $ — | $ 818,000 |
| Laboratory and building improvements | — | 17,000 |
| Furniture and equipment | 14,000 | 63,000 |
| | 14,000 | 898,000 |
| Less accumulated depreciation and amortization | 8,000 | 891,000 |
| Property and equipment, net | $ 6,000 | $ 7,000 |

**PlasmaTech Biopharmaceuticals, Inc. and Subsidiaries**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**
**Two years ended December 31, 2013**

**NOTE 4 — PROPERTY AND EQUIPMENT - (continued)**

Depreciation and amortization on property and equipment was $3,000 and $57,000 for the years ended December 31, 2013 and 2012, respectively. The laboratory equipment was sold in 2013 when the laboratory was closed.

**NOTE 5 — 401(k) PLAN**

We have a tax-qualified employee savings and retirement plan (the 401(k) Plan) covering all our employees. Pursuant to the 401(k) Plan, employees may elect to reduce their current compensation by up to the statutorily prescribed annual limit ($17,500 in 2013 and $17,000 in 2012) and to have the amount of such reduction contributed to the 401(k) Plan. The 401(k) Plan is intended to qualify under Section 401 of the Internal Revenue Code so that contributions by employees or by us to the 401(k) Plan, and income earned on 401(k) Plan contributions, are not taxable to employees until withdrawn from the 401(k) Plan, and so that contributions by us, if any, will be deductible by us when made. At the direction of each participant, we invest the assets of the 401(k) Plan in any of 60 investment options. Company contributions under the 401(k) Plan were approximately $0 in 2013 and $0 in 2012.

**NOTE 6 — DEBT**

We had a note payable of $2,750,000 at December 31, 2011 which was due on September 13, 2012. The note and interest due was paid in full on November 2, 2012. The note had interest at 12% per annum with $330,000 of interest due and paid on September 13, 2012.

**NOTE 7 — COMMITMENTS AND CONTINGENCIES**

Operating Leases

At December 31, 2013, we had a commitment under a non-cancelable operating lease for our New York office until August 31, 2014 totaling $130,000. Rent expense for the years ended December 31, 2013 and 2012 was $270,000 and $288,000, respectively. Rent expense included rent for our Dallas office which was closed on September 30, 2013. We also have one non-cancelable operating lease — for a copier with future obligations totaling approximately $10,000 ending in 2014.

Legal

Alan Schmidt, a former shareholder of Genaera Corporation (“Genaera”), and a former unitholder of the Genaera Liquidating Trust (the “Trust”), filed a purported class action in the United States District Court for the Eastern District of Pennsylvania in June 2012. The lawsuit named thirty defendants, including the Company, MacroChem Corporation, which was acquired by the Company in February 2009, Jeffrey Davis, the CEO and a director of the Company, and Steven H. Rouhandeh and Mark Alvino, both of whom are Company directors (the “PlasmaTech Defendants”). With respect to the PlasmaTech Defendants, the complaint alleged direct and derivative claims asserting that directors of Genaera and the Trustee of the Trust breached their fiduciary duties to Genaera, Genaera’s shareholders and the Trust’s unitholders in connection with the licensing and disposition of certain assets, aided and abetted by numerous defendants including the PlasmaTech Defendants. Schmidt seeks money damages, disgorgement of any distributions received from the Trust, rescission of sales made by the Trust, attorneys’ and expert fees, and costs. On December 19, 2012, Schmidt filed an amended complaint which asserted substantially the same allegations with respect to the PlasmaTech Defendants. On February 4, 2013, the PlasmaTech Defendants moved to dismiss all claims asserted against them. On August 12, 2013 the court granted the PlasmaTech Defendants’ motions to dismiss and entered judgment in favor of the PlasmaTech Defendants on all claims. On August 26, 2013, Schmidt filed a motion for reconsideration. On September 10, 2013 Schmidt filed a Notice of Appeal with the District Court. On September 17, 2013, Schmidt filed his appeal with the U.S. Third Circuit Court of Appeals. On September 25, 2013, the District Court denied Schmidt’s motion for reconsideration. On October 17, 2013, Schmidt amended his appeal to include the District court’s denial of his motion for reconsideration. The Company intends to contest the claims vigorously.

**PlasmaTech Biopharmaceuticals, Inc. and Subsidiaries**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**
**Two years ended December 31, 2013**

**NOTE 7 — COMMITMENTS AND CONTINGENCIES - (continued)**

We are not currently subject to any other material pending legal proceedings.

**NOTE 8 — FAIR VALUE MEASUREMENTS**

We calculate the fair value of our assets and liabilities which qualify as financial instruments and include additional information in the notes to the consolidated financial statements when the fair value is different than the carrying value of these financial instruments. The estimated fair value of accounts receivable, accounts payable and accrued expenses and dividends payable approximate their carrying amounts due to the relatively short maturity of these instruments.

Generally Accepted Accounting Principles define's fair value as the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants at the measurement date. This guidance establishes a three-level fair value hierarchy that prioritizes the inputs used to measure fair value. The hierarchy requires entities to maximize the use of observable inputs and minimize the use of unobservable inputs. The three levels of inputs used to measure fair value are as follows:

- Level 1 — Quoted prices in active markets for identical assets or liabilities.
- Level 2 — Observable inputs other than quoted prices included in Level 1, such as quoted prices for similar assets and liabilities in active markets; quoted prices for identical or similar assets and liabilities in markets that are not active; or other inputs that are observable or can be corroborated by observable market data.
- Level 3 — Unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets and liabilities. This includes certain pricing models, discounted cash flow methodologies and similar valuation techniques that use significant unobservable inputs.

The guidance requires an entity to maximize the use of observable inputs and minimize the use of unobservable inputs when measuring fair value.

We have segregated all financial assets and liabilities that are measured at fair value on a recurring basis (at least annually) into the most appropriate level within the fair value hierarchy based on the inputs used to determine the fair value at the measurement date in the table below.

Financial assets and liabilities measured at fair value on a recurring basis as of December 31, 2013 and December 31, 2012 are summarized below:

(in thousands)

| Description | As of December 31, 2013 | Level 1 | Level 2 | Level 3 | Total Gains (Losses) |
|---|---|---|---|---|---|
| Liabilities: | | | | | |
| Derivative liability – warrants | $ — | $ — | $ — | $ — | $ 271 |
| preferred stock | $ 1,190 | $ — | $ — | $ 1,190 | $ 8,010 |

**PlasmaTech Biopharmaceuticals, Inc. and Subsidiaries**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**
**Two years ended December 31, 2013**

**NOTE 8 — FAIR VALUE MEASUREMENTS - (continued)**

(in thousands)

| Description | As of December 31, 2012 | Level 1 | Level 2 | Level 3 | Total Gains (Losses) |
|---|---|---|---|---|---|
| Liabilities: | | | | | |
| Derivative liability – warrants | $ 271 | $ — | $ 271 | $ — | $ 1,236 |
| preferred stock | $ 9,200 | $ — | $ — | $ 9,200 | $ (4,770) |

In order to calculate the Level 3 Derivative liability — preferred stock, we used the Monte Carlo simulation to estimate future stock prices. The use of valuation techniques requires the Company to make various key assumptions for inputs into the model, including assumptions about the expected future volatility of the price of the Company's stock. In estimating the fair value at December 31, 2013, we based our selected volatility on the one-year historic volatility of the Company's stock as we believe this is most representative of the expected volatility in the near future for the Company.

**NOTE 9 — PREFERRED STOCK**

Series A Cumulative Convertible Preferred Stock

On November 7, 2007, and February 4, 2008, we entered into securities purchase agreements (the Purchase Agreements) with accredited investors to sell shares of a newly created series of our preferred stock, designated "Series A Cumulative Convertible Preferred Stock", par value $0.01 per share, for an issue price of $10,000 per share, (the Series A Preferred Stock) and agreed to issue warrants to purchase shares of our common stock at an exercise price of $175.00 per share. The shares of Series A Preferred Stock were convertible into common stock at the initial conversion price of $150.00 per share. The exercise and conversion price have changed, as described below.

As a condition to closing, we entered into an Investor Rights Agreement with each of the investors purchasing shares of Series A Preferred Stock, and our Board of Directors approved with respect to the shareholder rights plan any action necessary under our shareholder rights plan to accommodate the issuance of the Series A Preferred Stock and warrants without triggering the applicability of the shareholder rights plan.

In connection with the sale and issuance of Series A Preferred Stock and warrants, we entered into a Director Designation Agreement whereby we agreed to continue SCO's right to designate two individuals to serve on the Board of Directors of PlasmaTech.

The issued and outstanding shares of Series A Preferred Stock grants the holders of such preferred stock anti-dilution, dividend and liquidations rights that are superior to those held by the holders of our common stock. Under these terms, should PlasmaTech issue additional shares of common stock, in certain circumstances, for a price below $150.00 per share, the conversion price of the Series A Preferred Stock will be lowered to the lowest subsequent issue price below $150.00 per share until the shares are converted or redeemed. This will have the effect of diluting the holders of our common stock. Under the terms of the Purchase Agreement, should PlasmaTech issue additional shares of common stock, in certain circumstances, for a price below $175.00 per share, the exercise price of the warrants will be lowered to the lowest subsequent issue price below $175.00 per share until the warrants are exercised or expire. Additionally, as discussed below, if we are unable to maintain an effective registration statement related to the Series A Preferred Stock, we would be required to pay liquidating damages.

On October 25, 2012, we issued Series B Preferred Stock with a conversion into common stock at $25.00 per share in a private placement offering. Per the terms of the agreement with the outstanding Series A Preferred Stock holders their stock became convertible into shares of common stock at $25.00 per share. The Series A Preferred Stock at December 31, 2012 was convertible into 1,165,348 shares of common stock, an increase of

**PlasmaTech Biopharmaceuticals, Inc. and Subsidiaries**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**
**Two years ended December 31, 2013**

**NOTE 9 — PREFERRED STOCK - (continued)**

760,054 shares of common stock from December 31, 2011. At December 31, 2013 the Series A Preferred Stock was convertible into 1,164,348 shares of common stock.

On November 10, 2011, we issued common stock in a private placement offering at $72.50 per share. Per the terms of the agreement with the outstanding Series A Preferred Stock holders their stock became convertible into shares of common stock at $72.50 per share. The Series A Preferred Stock at December 31, 2011 was convertible into 1,169,348 shares of common stock, an increase of 171,695 shares of common stock from December 31, 2010.

In addition, warrants to acquire 82,990 shares of common stock that were granted to the holders of Series A Preferred Stock were re-priced from $175.00 to $150.00 due to an offering on January 26, 2010; then re-priced from $150.00 to $127.50 due to an offering on December 14, 2010; then re-priced from $127.50 to $72.50 due to an offering on November 10, 2011; and further re-priced from $72.50 to $25.00 due to the offering on October 25, 2012.

November 7, 2007 Series A Preferred Stock

On November 7, 2007, we entered into the Purchase Agreements with accredited investors whereby we agreed to sell 954.0001 shares of a newly created series of our Series A Preferred Stock and agreed to issue warrants to purchase 31,800 shares of our common stock at an exercise price of $175.00 per share, for an aggregate purchase price for the Series A Preferred Stock and Warrants of $9,540,001. The shares of Series A Preferred Stock were convertible into common stock at the initial conversion price of $150.00 per share. Due to the offering on October 25, 2012, the conversion price and warrant exercise price changed to $25.00 per share. The warrants expired November 10, 2013.

As a condition to closing, SCO Capital Partners LLC and affiliates, along with the other holders of an aggregate of $6,000,000 Secured Convertible Notes, also exchanged their notes and accrued interest for an additional 1,836.0512 shares of Series A Preferred Stock and were issued warrants to purchase 22,441 shares of our common stock at an exercise price of $175.00 per share, and Oracle Partners LP and affiliates, along with the other holders of an aggregate of $4,015,000 Convertible Notes also exchanged their notes and accrued interest for 437.3104 shares of the Series A Preferred Stock and were issued warrants to purchase 14,577 shares of our common stock at an exercise price of $175.00 per share. In connection with the exchange of the notes, all security interests and liens relating thereto were terminated. Due to the offering on October 25, 2012, the conversion price and warrant exercise price changed to $25.00 per share.

The conversion of debt into equity resulted in a loss on extinguishment of debt of $11,628,000. This represented the difference between the fair value of the equity interest granted, based on recent sales of identical equity instruments, and the carrying amount of the debt and interest settled.

In connection with the preferred stock offering, we issued warrants for placement agent fees, to purchase a total of 4,180 shares of common stock. All of the warrants are exercisable immediately and expire six years from date of issue. The fair value of the warrants was $129.50 per share on the date of the grant using the Black-Scholes pricing model with the following assumptions: expected dividend yield 0.0%, risk-free interest rate 3.84%, expected volatility 110% and a term of 6 years. The warrants expired November 10, 2013.

February 4, 2008 Series A Preferred Stock

On February 4, 2008, we entered into Purchase Agreements with accredited investors whereby we agreed to sell 272.50 shares of our Series A Preferred Stock and agreed to issue warrants to purchase 9,083 shares of our common stock at an exercise price of $175.00 per share, for an aggregate purchase price for the Series A Preferred Stock and Warrants of $2,725,000. Proceeds, net of cash issuance costs from the sale were $2,444,000. The shares of Series A Preferred Stock were convertible into common stock at the initial conversion price of $150.00 per share. Due to the offering on October 25, 2012 the conversion price changed to $25.00 per share. The warrants expired February 4, 2014.

**PlasmaTech Biopharmaceuticals, Inc. and Subsidiaries**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**
**Two years ended December 31, 2013**

**NOTE 9 — PREFERRED STOCK - (continued)**

In connection with the preferred stock offering, we issued warrants for placement agent fees to purchase a total of 909 shares of common stock. All of the warrants were exercisable immediately and expired six years from the date of issue. The fair value of the warrants was $114.50 per share on the date of grant using the Black-Scholes option pricing model with the following assumptions: expected dividend yield 0.0%, risk-free interest rate 2.75%, expected volatility 110% and an expected term of 6 years. The warrants expired February 4, 2014.

Derivative Liability

Effective January 1, 2009, we adopted the provisions of FASB ASC 815, *"Derivatives and Hedging"* (FASB ASC 815) (previously EITF 07-5, *"Determining Whether an Instrument (or an Embeded Feature) is Indexed to an Entity's Own Stock"* ). As a result of adopting FASB ASC 815, warrants to purchase 77,901 of our common stock previously treated as equity pursuant to the derivative treatment exemption were no longer afforded equity treatment. These warrants had an exercise price of $175.00 and expired on November 10, 2013 and February 4, 2014. Effective January 1, 2009, we reclassified the fair value of these common stock warrants, from equity to liability status, as if these warrants were treated as a derivative liability since origination.

We determined that the anti-dilution provision built into the preferred shares and warrants issued should be considered for derivative accounting. FASB ASC 815 requires freestanding contracts that are settled in a company's own stock to be designated as an equity instrument, assets or liability. Under the provisions of FASB ASC 815, a contract designated as an asset or liability must be initially recorded and carried at fair value until the contract meets the requirements for classification as equity, until the contract is exercised or until the contract expires. We determined that the anti-dilution provision associated with the November 2007 and February 2008 preferred shares and warrants no longer met the criteria for equity accounting through the revised criteria in FASB ASC 815.

Accordingly, at January 1, 2009, we determined that the warrants and the preferred stock conversion feature should be accounted for as derivative liabilities. The preferred stock conversion feature was determined to have no fair market value at both issuance dates as well as each reporting period until the third quarter of 2010 since management asserted that the likelihood of issuing any new equity at a price that would trigger the anti-dilution effect to be nil. During the third quarter of 2010 we were actively raising capital. With our stock price below $150.00 a share it was possible that we would sell shares below $150.00 per share. Since this would require an adjustment to our convertible preferred stock we recorded a derivative liability and expense at September 30, 2010. The derivative liability and expense was revalued at December 31, 2010 and was $5,840,000; at December 31, 2011 and was $4,430,000; at December 31, 2012 and was $9,200,000; and at December 31, 2013 was $1,190,000. The change in the fair value of the derivative was a loss of $4,770,000 in 2012 and a gain of $8,010,000 in 2013. We will continue to reevaluate the derivative liability in future reporting periods and adjust the derivative liability as necessary. The warrants were valued at issuance and each reporting period since using the Black-Scholes model. Both of these derivatives will continue to be marked to market in accordance with FASB ASC 815.

On January 1, 2009 we reclassified the fair value of the warrants from equity to liability as if these warrants were treated as a derivative liability since their issue date. We recorded derivative gain of $1,236,000 for the year ended December 31, 2012 and $271,000 gain for the year ended December 31, 2013. Warrants to purchase 72,998 shares of our common stock expired November 10, 2013. The remaining 9,992 warrants expired February 4, 2014.

Series B Cumulative Convertible Preferred Stock

On October 25, 2012, we entered into a Preferred Stock and Warrant Purchase Agreement (the "Purchase Agreement") with existing investors whereby we agreed to sell 1,000 shares of a newly created series of our preferred stock, designated "Series B Cumulative Convertible Preferred Stock", par value $0.01 per share, for

**PlasmaTech Biopharmaceuticals, Inc. and Subsidiaries**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**
**Two years ended December 31, 2013**

**NOTE 9 — PREFERRED STOCK - (continued)**

an issue price of $10,000 per share, (the "Series B Preferred Stock") and agreed to issue warrants to purchase 400,000 shares of our common stock at an exercise price of $25.00 per share, for an aggregate purchase price of $10,000,000. The financing consisted of $4,703,000 of new investment and the conversion of approximately $5,297,000 of outstanding dividends payable on our Series A Preferred Stock. Certain terms of the Series B Preferred Stock are senior in right to the Company's outstanding Series A Preferred Stock. The Series B financing was approved by the requisite percentage of the holders of the Company's Series A Preferred Stock and closed on October 25, 2012.

The shares of Series B Preferred Stock issued upon closing are convertible at the option of the holder into shares of our common stock at a conversion price of $25.00 per share of common stock (the "Conversion Price"). The Conversion Price is not subject to adjustment, except in cases of stock splits, stock dividends or similar transactions.

The Series B Preferred Stock is entitled to a liquidation preference, senior to the liquidation preference of the Series A Preferred Stock, equal to the greater of (i) (A) two times (2x) the Stated Value for the Series B Preferred Stock, plus any accumulated and unpaid dividends (whether or not declared) on the Series B Preferred Stock if such liquidation takes place prior to the fifth anniversary of the original issue date or (B) three times (3x) the Stated Value for the Series B Preferred Stock, plus any accumulated and unpaid dividends (whether or not declared) on the Series B Preferred Stock if such liquidation takes place on or after to the fifth anniversary of the original issue date, or (ii) the cash or other property distributable upon such liquidation with respect to the shares of Common Stock into which such shares of Series B Preferred Stock, including any accrued dividends thereon, could have been converted immediately prior to such payment. "Stated Value" shall mean $10,000 per share of Series B Preferred Stock, as it may be increased from time to time as set forth in the Certificate of Designations. The Series B Preferred Stock is also entitled to a dividend of 12% per annum, payable quarterly in cash or additional Stated Value, at the election of the majority holders at time of payment.

The Company has the right, but not the obligation, and with the written consent of the majority holders, to force conversion ("Mandatory Conversion") of all, but not less than all, of the outstanding Series B Preferred Stock into common stock as long as the closing price of our common stock exceeds $250.00 for at least 20 consecutive trading days immediately prior to the conversion and the average daily trading volume is not less than 4,000 shares per day for at least 20 consecutive trading days immediately prior to such date on which the Company gives notice of such conversion. The Company's ability to cause a Mandatory Conversion is subject to certain other conditions, including that a registration statement covering the common stock issuable upon such Mandatory Conversion is in effect and able to be used.

The Series B Preferred Stock will vote together with the common stock on an as-if-converted basis. The consent of the Series B Preferred Stock is required for the Company to take certain actions.

The common stock purchase warrants issued are for an aggregate of 400,000 shares of our common stock at an exercise price of $25.00. The warrants can also be exercised on a cashless basis. The warrants will expire six years from the date of issuance.

The warrant exercise price is subject to equitable adjustment for stock splits, dividends, combinations, and reorganizations only.

Liquidated Damages

Pursuant to the terms of an Investor Rights Agreement with the Purchasers of Series A Preferred Stock, we are required to maintain an effective registration statement. The Securities and Exchange Commission declared the registration statement effective November 13, 2008 relating to a portion of such securities, and as a result, we accrued $857,000 in potential liquidated damages as of December 31, 2013 and December 31, 2012. Potential liquidated damages are capped at 10% of each holder's investment. However, pursuant to the terms

**PlasmaTech Biopharmaceuticals, Inc. and Subsidiaries**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**
**Two years ended December 31, 2013**

**NOTE 9 — PREFERRED STOCK - (continued)**

of the Investor Rights Agreement, we may not be required to pay such liquidated damages if such shares are saleable without restriction pursuant to Rule 144 of the Securities Act of 1933.

Preferred Stock Dividends — Series A

Preferred stock dividends of $5,122,000 were accrued at December 31, 2013, plus interest. Dividends are payable semi-annually in either cash or common stock.

Preferred Stock Dividends — Series B

Preferred stock dividends of $1,541,000 were accrued at December 31, 2013, plus interest. Dividends are payable quarterly in either cash or Series B preferred stock.

**NOTE 10 — STOCKHOLDERS' EQUITY**

Warrants

There were warrants to purchase a total of 637,640 shares of common stock outstanding at December 31, 2013. All warrants were exercisable at December 31, 2013. The warrants had various exercise prices and terms as follows:

| Summary of Warrants | Warrants Outstanding | Exercise Price | Expiration Date |
|---|---|---|---|
| 2012 Series B private placement[a] | 400,000 | $ 25.00 | 10/24/18 |
| 2012 investor relations advisor[b] | 600 | 58.50 | 4/19/14 |
| 2011 November private placement[c] | 42,899 | 83.50 | 5/10 & 30/14 |
| 2011 November private placement[c] | 42,889 | 100.00 | 11/10 & 30/16 |
| 2011 November placement agent warrants[c] | 744 | 83.50 & 100.00 | 11/10 & 30/16 |
| 2011 investor relations advisor[d] | 250 | 115.00 | 4/15/14 |
| 2010 December registered direct offering[e] | 18,625 | 153.00 | 12/14/15 |
| 2010 January registered direct offering[f] | 20,837 | 150.00 | 1/26/15 |
| 2010 January placement agent warrants[f] | 2,505 | 187.50 | 1/26/15 |
| 2009 investor relations advisor[g] | 500 | 175.00 | 11/4/14 |
| 2009 business consultant[h] | 1,200 | 103.50 | 7/23/14 |
| 2008 preferred stock offering[i] | 9,992 | 25.00 | 2/04/14 |
| 2008 Somanta accounts payable[j] | 4,939 | 175.00 | 1/04/14 |
| 2006 convertible note[k] | 76,370 | 66.00 | 2/16/15 |
| 2006 convertible note[k] | 7,729 | 66.00 | 10/24/15 |
| 2006 convertible note[k] | 7,547 | 66.00 | 12/06/15 |
| Total | 637,640 | | |

a) In connection with a private placement offering on October 25, 2012, warrants to purchase 400,000 shares of common stock at $25.00 per share were issued. All of the warrants are exercisable immediately and expire on October 24, 2018.

b) During 2012, an investor relations advisor received warrants to purchase 600 shares of common stock at an exercise price of $58.50 per share exercisable at any time until April 19, 2014, for investor relations consulting services rendered in 2012. The expense recorded for the year ended December 31, 2012 was $10,000.

c) In connection with a private placement offering on November 10 and 30, 2011, warrants to purchase 42,899 shares of common stock at $83.50 per share were issued. All of the warrants are exercisable immediately and 37,149 warrants expire May 10, 2014 and 5,750 warrants expire May 30, 2014.

**PlasmaTech Biopharmaceuticals, Inc. and Subsidiaries**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**
**Two years ended December 31, 2013**

**NOTE 10 — STOCKHOLDERS' EQUITY - (continued)**

In connection with a private placement offering on November 10 and 30, 2011, additional warrants to purchase 42,899 shares of common stock at $100.00 per share were issued. All of the warrants are exercisable immediately and 37,149 warrants expire November 10, 2016 and 5,750 warrants expire November 30, 2016.

Also in connection with a private placement offering on November 10 and 30, 2011, placement agent warrants to purchase 372 shares of common stock at $83.50 per share were issued. Also in connection with a private placement offering on November 10 and 30, 2011, placement agent warrants to purchase 372 shares of common stock at $100.00 per share were issued. All the placement agent warrants are exercisable immediately and 372 warrants expire November 10, 2016 and 372 warrants expire November 30, 2016.

d) During 2011, an investor relations advisor received warrants to purchase 250 shares of common stock at an exercise price of $115.00 per share at any time until April 15, 2014, for investor relations consulting services rendered in 2011.

e) In connection with a registered direct offering on December 14, 2010, warrants to purchase 18,625 shares of common stock at $153.00 per share were issued. All of the warrants are exercisable immediately and expire December 14, 2015.

f) In connection with a registered direct offering on January 26, 2010, warrants to purchase 20,837 shares of common stock at $150.00 per share were issued. All of the warrants are exercisable immediately and expire January 26, 2015.

In addition, we issued warrants for placement agent fees to purchase 2,505 shares of our common stock at an exercise price of $187.50 per share. All of the warrants are exercisable immediately and expire January 26, 2015.

g) During 2010, an investor relations advisor received warrants to purchase 500 shares of common stock at an exercise price of $175.00 per share at any time until November 4, 2014, for investor relations consulting services rendered in 2010.

h) During 2009, a business consultant received warrants to purchase 3,000 shares of common stock at an exercise price of $103.50 per share at any time until July 23, 2014, for business consulting services rendered in 2009. 1,200 of the warrants were exercisable on December 31, 2011. The remaining 1,800 warrants expired July 23, 2010 because our stock did not reach specified trading prices.

i) In connection with the preferred stock offering in February 2008, warrants to purchase a total of 9,992 shares of common stock were issued. All of the warrants expired February 4, 2014. The fair value of the warrants was $114.50 per share on the date of the grant using the Black-Scholes pricing model with the following assumptions: expected dividend yield 0.0%, risk-free interest rate 2.75%, expected volatility 110% and a term of 6 years. The exercise price of $175.00 was decreased to $150.00 after the January 2010 placement; to $127.50 after the December 2010 placement; to $72.50 after the November 2011 placement; and, to $25.00 after the October 2012 placement.

j) In connection with our acquisition of Somanta Pharmaceuticals, Inc. (Somanta) we exchanged for $1,576,000 due to Somanta vendors, for 10,762 shares of our common stock and warrants to purchase 4,939 shares of common stock at $175.00. The warrants expired January 4, 2014.

k) In connection with the convertible note offerings in 2006, warrants to purchase a total of 91,646 shares of common stock at $66.00 per share were issued. All of the warrants are exercisable immediately and expire six years from date of issue. On February 10, 2012 these warrants were extended an additional three years.

2012 Warrant Adjustments

On February 10, 2012, we entered into amendment agreements for 91,646 currently outstanding warrants which extended the expiration dates of such warrants to February 16, 2015 for 76,370 warrants; to October 24, 2015 for 7,728 warrants; and to December 6, 2015 for 7,547 warrants. The holders of such warrants are SCO Capital Partners LLC, Lake End Capital LLC and Beach Capital LLC. These holders may be deemed to be affiliates of Jeffrey B. Davis and Steven H. Rouhandeh, our former Chief Executive Officer

**PlasmaTech Biopharmaceuticals, Inc. and Subsidiaries**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**
**Two years ended December 31, 2013**

**NOTE 10 — STOCKHOLDERS' EQUITY - (continued)**

and a director, respectively, as well as other un-affiliated warrant holders. The warrants that were amended were for the purchase of an aggregate of 91,646 shares of our common stock. In connection with the amendments, the holders of such warrants agreed to waive any damages that they may have incurred relating to the Company's inability to register the shares of common stock issuable upon exercise of the warrants, other than liquidated damages that may have already accrued relating to such inability to register such shares.

**NOTE 11 — STOCK OPTION PLANS**

We account for stock based compensation expense in accordance with FASB ASC 718, *Stock Based Compensation*. We have two stock-based compensation plans under which incentive and non-incentive qualified stock options and restricted shares may be granted to employees, directors and consultants. We measure the cost of the employee/director/consultant services received in exchange for an award of equity instruments based on the grant date fair value of the award.

Our stock-based employee compensation plans described below:

2005 Equity Incentive Plan

We have a stock awards plan, (the 2005 Equity Incentive Plan), under which 500,000 shares of our authorized but unissued common stock were reserved for issuance to employees, consultants, or to non-employee members of the Board or to any board of directors (or similar governing authority) of any affiliate of the Company. The 2005 Equity Incentive Plan replaced the previously approved stock option plan (the 1995 Stock Awards Plan).

For the 2005 Equity Incentive Plan, the fair value of options was estimated at the date of grant using the Black-Scholes option pricing model with the following weighted average assumptions used for grants in fiscal 2012: dividend yield of 0%; volatility of 98%; risk-free interest rate of 0.45%; and expected lives of 5.5 years. The weighted average fair value of options granted was $14.50 per share during 2012. No options were granted in 2013.

Summarized information for the 2005 Equity Incentive Plan is as follows:

| | Options | Weighted-average exercise Price |
|---|---|---|
| Outstanding options at January 1, 2012 | 45,336 | $ 108.50 |
| Granted, fair value of $14.50 per share | 24,700 | 19.50 |
| Exerpiredforfeited | (16,760) | 107.00 |
| Outstanding options at December 31, 2012 | 53,276 | 68.00 |
| Expired/forfeited | (21,992) | 85.97 |
| Exercised | (2,500) | 11.50 |
| Outstanding options at December 31, 2013 | 28,784 | 58.87 |
| Exercisable at December 31, 2013 | 35,199 | 60.00 |

The intrinsic value of options under this plan related to the outstanding and exercisable options were $11,000 and $10,000 at December 31, 2013, respectively. The intrinsic value of options under this plan related to the outstanding and exercisable options were $7,000 and $1,000, respectively at December 31, 2012.

The total intrinsic value of options exercised during 2013 was $3,000 and during 2012 was none.

**PlasmaTech Biopharmaceuticals, Inc. and Subsidiaries**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**
**Two years ended December 31, 2013**

**NOTE 11 — STOCK OPTION PLANS - (continued)**

Further information regarding options outstanding under the 2005 Equity Incentive Plan at December 31, 2013 is summarized below:

| | | Weighted average | | | Weighted-average | |
|---|---|---|---|---|---|---|
| Range of exercise prices | Number of options outstanding | Remaining Exercise life in years | Exercise price | Number of options exercisable | Remaining life in years | Exercise price |
| $11.50 | 10,500 | 9.0 | $ 11.50 | 9,875 | 9.0 | $ 11.50 |
| $30.50 – 42.50 | 6,400 | 7.4 | $ 31.56 | 6,400 | 7.4 | $ 31.56 |
| $69.00 | 1,400 | 6.0 | $ 69.00 | 1,400 | 6.0 | $ 69.00 |
| $113.50 – 157.50 | 10,484 | 7.7 | $ 121.64 | 10,484 | 7.7 | $ 121.64 |
| | 28,784 | | | 28,159 | | |

1995 Stock Awards Plan

Under the 1995 Stock Awards Plan, as amended, 10,000 shares of our authorized but unissued common stock were reserved for issuance to optionees including officers, employees, and other individuals performing services for us. At December 31, 2013, there were no additional shares available for grant under the 1995 Stock Awards Plan. A total of 100 options were outstanding under this plan at December 31, 2013.

Options granted under all the plans generally vest ratably over a four to five year period and are generally exercisable over a ten-year period from the date of grant. Stock options were generally granted with an exercise price equal to the market value at the date of grant.

Summarized information for the 1995 Stock Awards Plan is as follows:

| | Options | Weighted-average exercise price |
|---|---|---|
| Outstanding options at January 1, 2012 | 1,150 | $ 829.00 |
| Expired | (360) | 907.00 |
| Outstanding options at December 31, 2012 | 790 | 793.50 |
| Expired | (690) | 760.50 |
| Outstanding options at December 31, 2013 | 100 | 1,022.50 |
| Exercisable at December 31, 2013 | 100 | 1,022.50 |

There was no intrinsic value related to outstanding or exercisable options under this plan at December 31, 2013 or 2012.

Further information regarding options outstanding under the 1995 Stock Awards Plan at December 31, 2013 is summarized below:

| | | Weighted average | | | Weighted-average | |
|---|---|---|---|---|---|---|
| Range of exercise prices | Number of Options outstanding | Remaining life in years | Exercise price | Number of options exercisable | Remaining life in years | Exercise price |
| $620.00 | 50 | 2.0 | $ 620.00 | 50 | 2.0 | $ 620.00 |
| $1,425.00 | 50 | 1.0 | $ 1,425.00 | 50 | 1.0 | $ 1,425.00 |
| | 100 | | | 100 | | |

**PlasmaTech Biopharmaceuticals, Inc. and Subsidiaries**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**
**Two years ended December 31, 2013**

## NOTE 12 — INCOME TAXES

Income tax expense differs from the statutory amounts as follows:

| | 2013 | 2012 |
|---|---|---|
| Income taxes at U.S. statutory rate | $ 1,513,000 | $ (3,581,000) |
| Current year reserve | 224,000 | 2,794,000 |
| Expenses not deductible | (1,737,000) | 787,000 |
| Total tax expense | $ — | $ — |

Deferred taxes are provided for the temporary differences between the financial reporting bases and the tax bases of our assets and liabilities. The temporary differences that give rise to deferred tax assets were as follows:

| | December 31, | |
|---|---|---|
| | 2013 | 2012 |
| Deferred tax assets | | |
| Net operating loss carryforwards | $ 63,087,000 | $ 64,147,000 |
| General business credit carryforwards | 2,362,000 | 2,450,000 |
| State credits | 3,053,000 | 3,072,000 |
| Property and equipment | — | 57,000 |
| Stock options | 473,000 | 1,531,000 |
| Derivatives | (92,000) | 4,007,000 |
| Deferred revenue | 1,072,000 | 899,000 |
| Intangible assets | 418,000 | 517,000 |
| Accrued interest | 253,000 | 253,000 |
| Other | 231,000 | 230,000 |
| Gross deferred tax assets | 70,857,000 | 77,163,000 |
| Valuation allowance | (70,857,000) | (77,163,000) |
| Net deferred taxes | $ — | $ — |

At December 31, 2013, we had approximately $188,549,000 of net operating loss carryforwards and approximately $2,363,000 of general business credit carryforwards. These carryforwards expire as follows:

| | Net operating loss carryforwards | General business credit carryforwards |
|---|---|---|
| 2012 | $ — | $ — |
| 2013 | — | — |
| 2014 | — | — |
| 2015 | — | — |
| Thereafter | 188,549,000 | 2,363,000 |
| | $ 188,549,000 | $ 2,363,000 |

As a result of a merger on January 25, 1996, a change in control occurred for federal income tax purposes, which limits the utilization of pre-merger net operating loss carryforwards of approximately $3,100,000 to approximately $530,000 per year.

**PlasmaTech Biopharmaceuticals, Inc. and Subsidiaries**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**
**Two years ended December 31, 2013**

**NOTE 12 — INCOME TAXES - (continued)**

Additionally, we acquired MacroChem Corporation on February 25, 2009 and Somanta Pharmaceuticals, Inc. on January 4, 2008. Both corporations were loss companies at the time of the acquisition. Therefore, the net operating losses related to those acquisitions may be subject to annual limitations as provided by IRC Sec. 382.

**NOTE 13 — SUBSEQUENT EVENTS**

On October 24, 2014, we effected a one for fifty reverse stock split approved by our Board of Directors and majority shareholders.

On September 10, 2014, we entered into an Unsecured Grid Note, for up to $250,000 with SCO. As of October 23, 2014 we have drawn a total of $250,000. The interest rate is 8% per annum and the maturity date is August 31, 2015 unless a financing of at least $5,000,000 occurs, then the note is required to be paid in full.

On September 22, 2014, we entered into an exclusive, world-wide licensing agreement with Licensor to obtain rights to utilize and to sub-license to other pharmaceuticals firms, its recently patented methods for the extraction of therapeutic biologics from human plasma.

Under the terms of the licensing agreement, we will pay a license fee of $5 million in a combination of cash and common stock subject to the achievement of certain events, a regulatory approval milestone payment in common shares upon the first FDA regulatory approval of a drug derived from the Licensor’s proprietary SDF process, and a tiered royalty on annual net sales of plasma fractions produced with Licensor’s proprietary SDF process.

On October 24, 2014, we changed our name to PlasmaTech Biopharmaceuticals, Inc.

**PlasmaTech Biopharmaceuticals, Inc. and Subsidiaries**

**Condensed Consolidated Balance Sheets**

| | September 30, 2014 (unaudited) | December 31, 2013 |
|---|---|---|
| ASSETS | | |
| Current assets | | |
| Cash and cash equivalents | $ 165,000 | $ 424,000 |
| Receivables | 3,000 | 74,000 |
| Prepaid expenses and other current assets | 76,000 | 77,000 |
| Total current assets | 244,000 | 575,000 |
| Property and equipment, net | 4,000 | 6,000 |
| Other assets | 32,000 | 32,000 |
| Total assets | $ 280,000 | $ 613,000 |
| LIABILITIES AND STOCKHOLDERS' DEFICIT | | |
| Current liabilities | | |
| Accounts payable | $ 1,630,000 | $ 863,000 |
| Accrued expenses | 857,000 | 857,000 |
| Short-term note payable | 250,000 | — |
| Dividends payable | 9,277,000 | 6,663,000 |
| Current portion of deferred revenue | 602,000 | 578,000 |
| Total current liabilities | 12,616,000 | 8,961,000 |
| Derivative liability – preferred stock | 13,000,000 | 1,190,000 |
| Long-term deferred revenue | 5,019,000 | 5,241,000 |
| Total liabilities | 30,635,000 | 15,392,000 |
| Commitments and contingencies | | |
| Stockholders' deficit | | |
| Convertible preferred stock Series A – $.01 par value; authorized 2,000,000 shares; 2,893.3617 shares issued at September 30, 2014 and 2,903.3617 at December 31, 2013 | — | — |
| Convertible preferred stock Series B – $.01 par value; authorized 2,000,000 shares; 1,000.0 shares issued at September 30, 2014 and at December 31, 2013 | — | — |
| Common stock – $.01 par value; authorized 200,000,000 shares; issued, 534,589 at September 30, 2014 and 514,589 at December 31, 2013 | 6,000 | 6,000 |
| Additional paid-in capital | 253,090,000 | 251,640,000 |
| Treasury stock, at cost – 4 shares | (4,000) | (4,000) |
| Accumulated deficit | (283,447,000) | (266,421,000) |
| Total stockholders' deficit | (30,355,000) | (14,779,000) |
| Total liabilities and stockholders' deficit | $ 280,000 | $ 613,000 |

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

**PlasmaTech Biopharmaceuticals, Inc. and Subsidiaries**

**Condensed Consolidated Statements of Operations**
**(unaudited)**

| | Three months ended September 30, | | Nine months ended September 30, | |
|---|---|---|---|---|
| | 2014 | 2013 | 2014 | 2013 |
| Revenues | | | | |
| Product sales | $ — | $ — | $ — | $ 1,542,000 |
| License revenues | 152,000 | 144,000 | 448,000 | 290,000 |
| Royalties | 84,000 | 45,000 | 243,000 | 48,000 |
| Total revenues | 236,000 | 189,000 | 691,000 | 1,880,000 |
| Expenses | | | | |
| Research and development | 73,000 | 236,000 | 298,000 | 756,000 |
| Product costs | — | 7,000 | — | 125,000 |
| Selling, general and administrative | 795,000 | 642,000 | 3,055,000 | 4,117,000 |
| Depreciation and amortization | 1,000 | — | 2,000 | 2,000 |
| Total expenses | 869,000 | 885,000 | 3,355,000 | 5,000,000 |
| Loss from operations | (633,000) | (696,000) | (2,664,000) | (3,120,000) |
| Interest and miscellaneous income | 11,000 | 46,000 | 45,000 | 215,000 |
| Interest and other expense | (147,000) | (96,000) | (406,000) | (182,000) |
| Gain on change in fair value of derivative – warrants | — | 168,000 | — | 140,000 |
| Gain (loss) on change in fair value of derivative – preferred stock | (700,000) | 421,000 | (11,810,000) | 8,471,000 |
| | (836,000) | 539,000 | (12,171,000) | 8,644,000 |
| Net income (loss) | (1,469,000) | (157,000) | (14,835,000) | 5,524,000 |
| Less preferred stock dividends | 740,000 | 742,000 | 2,191,000 | 2,202,000 |
| Net income (loss) allocable to common stockholders | $(2,209,000) | $(899,000) | $(17,026,000) | $ 3,322,000 |
| Net income (loss) per common share | | | | |
| Basic | $ (4.15) | $ (1.77) | $ (32.46) | $ 6.61 |
| Diluted | $ (4.15) | $ (1.77) | $ (32.46) | $ 6.55 |
| Weighted average number of common shares outstanding | | | | |
| Basic | 532,258 | 508,655 | 524,595 | 502,349 |
| Diluted | 532,258 | 508,655 | 524,595 | 507,133 |

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

**PlasmaTech Biopharmaceuticals, Inc. and Subsidiaries**

**Condensed Consolidated Statements of Stockholders' Deficit**
**(unaudited)**

| | Common Stock | | Preferred Stock – A | | Preferred Stock – B | | Additional paid-in capital | Treasury stock | Accumulated deficit |
|---|---|---|---|---|---|---|---|---|---|
| | Shares | Amount | Shares | Amount | Shares | Amount | | | |
| Balance December 31, 2013 | 514,589 | $6,000 | 2,903.3617 | $ — | 1,000.0 | $ — | $251,640,000 | $(4,000) | $(266,421,000) |
| Common stock issued for services | 4,500 | — | — | — | — | — | 75,000 | — | — |
| Stock option compensation expense | — | — | — | — | — | — | 795,000 | — | — |
| Preferred dividends | — | — | — | — | — | — | — | — | (725,000) |
| Net loss | — | — | — | — | — | — | — | — | (859,000) |
| Balance March 31, 2014 | 519,089 | $6,000 | 2,903.3617 | $ — | 1,000.0 | $ — | $252,510,000 | $(4,000) | $(268,005,000) |
| Common stock issued for services | 5,900 | — | — | — | — | — | 132,000 | — | — |
| Preferred stock converted into common stock | 4,000 | — | (10.0000) | — | — | — | — | — | — |
| Stock option compensation expense | — | — | — | — | — | — | 192,000 | — | — |
| Preferred dividends | — | — | — | — | — | — | — | — | (726,000) |
| Net loss | — | — | — | — | — | — | — | — | (12,507,000) |
| Balance June 30, 2014 | 528,989 | $6,000 | 2,893.3617 | $ — | 1,000.0 | $ — | $252,834,000 | $(4,000) | $(281,238,000) |
| Common stock issued for services | 5,600 | — | — | — | — | — | 84,000 | — | — |
| Stock option compensation expense | — | — | — | — | — | — | 172,000 | — | — |
| Preferred dividends | — | — | — | — | — | — | — | — | (740,000) |
| Net loss | — | — | — | — | — | — | — | — | (1,469,000) |
| Balance Sept 30, 2014 | 534,589 | $6,000 | 2,893.3617 | $ — | 1,000.0 | $ — | $253,090,000 | $(4,000) | $(283,447,000) |

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

**PlasmaTech Biopharmaceuticals, Inc. and Subsidiaries**

**Condensed Consolidated Statements of Cash Flows**
**(unaudited)**

| | Nine Months ended September 30, | |
|---|---|---|
| | **2014** | **2013** |
| Cash flows from operating activities: | | |
| Net income (loss) | $(14,835,000) | $ 5,524,000 |
| Adjustments to reconcile net income (loss) to cash provided by (used in) operating activities: | | |
| (Gain) on change in fair value of derivative – warrants | — | (140,000) |
| (Gain) loss on change in fair value of derivative – preferred stock | 11,810,000 | (8,471,000) |
| Depreciation and amortization | 2,000 | 2,000 |
| Stock option compensation expense | 1,159,000 | 354,000 |
| Stock issued to directors and employees | — | 99,000 |
| Stock issued for services | 291,000 | 108,000 |
| Change in operating assets and liabilities: | | |
| Receivables | 71,000 | 784,000 |
| Inventory | — | 194,000 |
| Prepaid expenses and other current assets | 1,000 | 162,000 |
| Accounts payable and accrued expenses | 767,000 | (1,333,000) |
| Interest payable on dividends | 423,000 | 182,000 |
| Deferred revenue | (198,000) | 3,010,000 |
| Net cash provided by (used in) operating activities | (509,000) | 475,000 |
| Cash flows from investing activities: | | |
| Capital expenditures | — | (1,000) |
| Net cash used in investing activities | — | (1,000) |
| Cash flows from financing activities: | | |
| Proceeds from short-term note payable | 250,000 | — |
| Proceeds from exercise of stock options | — | 29,000 |
| Net cash provided by financing activities | 250,000 | 29,000 |
| Net increase (decrease) in cash and cash equivalents | (259,000) | 503,000 |
| Cash and cash equivalents at beginning of period | 424,000 | 396,000 |
| Cash and cash equivalents at end of period | $ 165,000 | $ 899,000 |
| *Supplemental cash flow information:* | | |
| *Cash paid for interest* | *$—* | *$—* |
| *Supplemental disclosure of noncash transactions:* | | |
| *Preferred stock dividends in dividends payable* | *$2,191,000* | *$2,202,000* |

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

**PlasmaTech Biopharmaceuticals, Inc. and Subsidiaries**

**Notes to Condensed Consolidated Financial Statements**
**Nine Months Ended September 30, 2014 and 2013**
**(unaudited)**

PlasmaTech Biopharmaceuticals, Inc. (formerly Access Pharmaceuticals, Inc., together with our subsidiaries, "We", "PlasmaTech" or the "Company") is a Delaware corporation. We are an emerging biopharmaceutical company focused on developing a range of pharmaceutical and medical device products primarily based upon our proprietary SDF formulation technology and our nanopolymer chemistry technologies and other drug delivery technologies.

All per share information reflect a one-for-fifty reverse stock split of our outstanding common stock effected October 24, 2014. Accordingly, all shares and per share amounts were retroactively adjusted to reflect this reverse stock split, including adjustments for common stock par value and additional paid-in capital.

**(1) Interim Financial Statements**

The condensed consolidated balance sheet as of September 30, 2014, the condensed consolidated statements of operations for the three and nine months ended September 30, 2014 and 2013, the condensed consolidated statements of stockholders' deficit for the three and nine months ended September 30, 2014, and the condensed consolidated statements of cash flows for the nine months ended September 30, 2014 and 2013, were prepared by management without audit. In the opinion of management, all adjustments, consisting only of normal recurring adjustments, except as otherwise disclosed, necessary for the fair presentation of the financial position, results of operations, and changes in financial position for such periods, have been made.

Certain information and footnote disclosures normally included in financial statements prepared in accordance with accounting principles generally accepted in the United States of America have been condensed or omitted. It is suggested that these interim financial statements be read in conjunction with the consolidated financial statements and notes thereto included in our Annual Report on Form 10-K for the year ended December 31, 2013. The results of operations for the period ended September 30, 2014 are not necessarily indicative of the operating results which may be expected for a full year. The condensed consolidated balance sheet as of December 31, 2013 contains financial information taken from the audited PlasmaTech financial statements as of that date.

The report of our independent registered public accounting firm for the fiscal year ended December 31, 2013 contained an explanatory paragraph to reflect substantial doubt about our ability to continue as a going concern as a result of our history of losses and our liquidity position, as discussed therein and in this Quarterly Report on Form 10-Q. We expect that our capital resources, financing strategy, revenues from MuGard sales, and expected receipts due under our license agreements will be adequate to fund our current level of operations into the first quarter of 2015. If we are unable to obtain adequate capital funding in the future or enter into future license agreements for our products, we may not be able to continue as a going concern, which would have an adverse effect on our business and operations, and investors' investment in us may decline.

Certain reclassifications to the consolidated financial statements for all periods presented have been made to conform to the September 30, 2014 presentation.

**(2) Liquidity**

The Company generated net loss allocable to common stockholders of $17,026,000 for the nine months ended September 30, 2014 and net income of $1,551,000 for the year ended December 31, 2013. At September 30, 2014, our working capital deficit was $12,372,000. Management believes that our capital resources, financing strategy, revenues from MuGard sales, and expected receipts due under our license agreements will be adequate to fund our current level of operations into the first quarter of 2015. We will require additional funds to continue operations. These funds are expected to come from royalties, the future sales of equity and/or license agreements or short-term loans. If we are unable to obtain adequate royalties or capital funding in the

**PlasmaTech Biopharmaceuticals, Inc. and Subsidiaries**

**Notes to Condensed Consolidated Financial Statements**
**Nine Months Ended September 30, 2014 and 2013**
**(unaudited)**

**(2) Liquidity - (continued)**

future or enter into future license agreements for our products, we may not be able to continue as a going concern, which would have an adverse effect on our business and operations, and investors' investment in us may decline.

**(3) Note Payable**

On September 10, 2014, we entered into an Unsecured Grid Note, for up to $250,000 with SCO Capital Partners LLC. As of November 14, 2014 we have drawn a total of $250,000. The interest rate is 8% per annum and the maturity date is August 31, 2015 unless a financing of at least $5,000,000 occurs, in which extent the note is required to be paid in full.

**(4) Fair Value of Financial Instruments**

The carrying value of cash equivalents, receivables, accounts payable and accruals approximate fair value due to the short maturity of these items.

U.S. GAAP defines fair value as the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants at the measurement date. U.S. GAAP establishes a three-level fair value hierarchy that prioritizes the inputs used to measure fair value. The hierarchy requires entities to maximize the use of observable inputs and minimize the use of unobservable inputs. The three levels of inputs used to measure fair value are as follows:

- Level 1 — Quoted prices in active markets for identical assets or liabilities.
- Level 2 — Observable inputs other than quoted prices included in Level 1, such as quoted prices for similar assets and liabilities in active markets; quoted prices for identical or similar assets and liabilities in markets that are not active; or other inputs that are observable or can be corroborated by observable market data.
- Level 3 — Unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets and liabilities. This includes certain pricing models, discounted cash flow methodologies and similar valuation techniques that use significant unobservable inputs.

The guidance requires an entity to maximize the use of observable inputs and minimize the use of unobservable inputs when measuring fair value.

We have segregated all financial assets and liabilities that are measured at fair value on a recurring basis (at least annually) into the most appropriate level within the fair value hierarchy based on the inputs used to determine the fair value at the measurement date in the table below.

**PlasmaTech Biopharmaceuticals, Inc. and Subsidiaries**

**Notes to Condensed Consolidated Financial Statements**
**Nine Months Ended September 30, 2014 and 2013**
**(unaudited)**

**(4) Fair Value of Financial Instruments - (continued)**

Financial assets and liabilities measured at fair value on a recurring basis as of September 30, 2014 and December 31, 2013 are summarized below:

(in thousands)

| Description | As of September 30, 2014 | Level 1 | Level 2 | Level 3 | Total (Losses) |
|---|---|---|---|---|---|
| Liabilities: | | | | | |
| Derivative liability – preferred stock | $ 13,000 | $ — | $ — | $ 13,000 | $ (11,810) |

(in thousands)

| Description | As of December 31, 2013 | Level 1 | Level 2 | Level 3 | Total Gains |
|---|---|---|---|---|---|
| Liabilities: | | | | | |
| Derivative liability – preferred stock | $ 1,190 | $ — | $ — | $ 1,190 | $ 8,010 |

In order to calculate the Level 3 Derivative liability — preferred stock, we used the Monte Carlo simulation to estimate future stock prices. The use of valuation techniques requires the Company to make various key assumptions for inputs into the model, including assumptions about the expected future volatility of the price of the Company's stock. In estimating the fair value at September 30, 2014 and December 31, 2013, we based our selected volatility on the one-year historic volatility of the Company's stock as we believe this is most representative of the expected volatility in the near future for the Company.

**(5) Stock Based Compensation**

For the three and nine months ended September 30, 2014, we recognized stock-based compensation expense of $172,000 and $1,159,000, respectively. For the three and nine months ended September 30, 2013 we recognized stock-based compensation expense of $26,000 and $354,000, respectively.

The following table summarizes stock-based compensation for the three and nine months ended September 30, 2014 and 2013:

| | Three months ended September 30, | | Nine months ended September 30, | |
|---|---|---|---|---|
| | 2014 | 2013 | 2014 | 2013 |
| Research and development | $ 18,000 | $ 9,000 | $ 113,000 | $ 28,000 |
| Selling, general and administrative | 154,000 | 17,000 | 1,046,000 | 326,000 |
| Stock-based compensation expense included in operating expense | $ 172,000 | $ 26,000 | $1,159,000 | $ 354,000 |

For the three and nine months ended September 30, 2014 we granted no stock options and 210,000 stock options, respectively. For the three and nine months ended September 30, 2013 we granted no stock options.

**PlasmaTech Biopharmaceuticals, Inc. and Subsidiaries**

**Notes to Condensed Consolidated Financial Statements**
**Nine Months Ended September 30, 2014 and 2013**
**(unaudited)**

**(5) Stock Based Compensation - (continued)**

Our weighted average Black-Scholes fair value assumptions used to value the grants in the first nine months of 2014 are as follows:

| | 9/30/14 |
|---|---|
| Expected life[(b)] | 5.5 yrs |
| Risk free interest rate | 1.65% |
| Expected volatility[(a)] | 102% |
| Expected dividend yield | 0.0% |

(a) Reflects movements in our stock price over the most recent historical period equivalent to the expected life.

(b) Based on the simplified method.

For the three and nine months ended September 30, 2014, stock valued at $84,000 and $291,000, respectively, was granted to consultants. For the three and nine months ended September 30, 2013, stock valued at $45,000 and $208,000, respectively, was granted to employees and consultants.

**(6) Litigation**

Alan Schmidt, a former shareholder of Genaera Corporation ("Genaera"), and a former unitholder of the Genaera Liquidating Trust (the "Trust"), filed a purported class action in the United States District Court for the Eastern District of Pennsylvania in June 2012. The lawsuit named thirty defendants, including PlasmaTech, MacroChem Corporation, which was acquired by us in February 2009, Jeffrey Davis, our former CEO and a director of PlasmaTech, and Steven H. Rouhandeh and Mark Alvino, both of whom are our directors (the "PlasmaTech Defendants"). With respect to the PlasmaTech Defendants, the complaint alleged direct and derivative claims asserting that directors of Genaera and the Trustee of the Trust breached their fiduciary duties to Genaera, Genaera's shareholders and the Trust's unitholders in connection with the licensing and disposition of certain assets, aided and abetted by numerous defendants including the PlasmaTech Defendants. Schmidt seeks money damages, disgorgement of any distributions received from the Trust, rescission of sales made by the Trust, attorneys' and expert fees, and costs. On December 19, 2012, Schmidt filed an amended complaint which asserted substantially the same allegations with respect to the PlasmaTech Defendants. On February 4, 2013, the PlasmaTech Defendants moved to dismiss all claims asserted against them. On August 12, 2013 the court granted PlasmaTech Defendants' motions to dismiss and entered judgment in favor of PlasmaTech Defendants on all claims. On August 26, 2013, Schmidt filed a motion for reconsideration. On September 10, 2013 Schmidt filed a Notice of Appeal with the District Court. On September 17, 2013, Schmidt filed his appeal with the U.S. Third Circuit Court of Appeals. On September 25, 2013, the District Court denied Schmidt's motion for reconsideration. On October 17, 2013, Schmidt amended his appeal to include the District court's denial of his motion for reconsideration. On March 20, 2014, Schmidt filed his Brief and Joint Appendix. On May 22, 2014, the PlasmaTech Defendants filed their Oppositions to Schmidt's Brief. On May 29, 2014, Schmidt was granted an extension of time until June 23, 2014 to file his Reply brief, and filed his Reply brief on that date. The Third Circuit held oral argument on September 12, 2014. On October 17, 2014, in a split decision, the Third Circuit reversed the District Court's decision holding, among other things, that the District Court's determination that the Amended Complaint was time-barred on statute of limitations grounds was premature. The Third Circuit did not rule upon any of the other grounds for dismissal advanced in the District Court and on appeal. The Third Circuit remanded the case to the District Court for further proceedings. We intend to continue contesting the claims.

We are not currently subject to any other material pending legal proceedings.

**PlasmaTech Biopharmaceuticals, Inc. and Subsidiaries**

**Notes to Condensed Consolidated Financial Statements**
**Nine Months Ended September 30, 2014 and 2013**
**(unaudited)**

### (7) Basic and Diluted Net Income (Loss) Per Common Share

Basic net income or loss per share is based upon the weighted average number of common shares outstanding during the period. Diluted net income or loss per share is based upon the weighted average number of common shares outstanding during the period, plus the effect of additional weighted average common equivalent shares outstanding during the period when the effect of adding such shares is dilutive. Common equivalent shares result from the assumed exercise of outstanding stock options and warrants (the proceeds of which are then assumed to have been used to repurchase outstanding stock using the treasury stock method). In addition, the assumed proceeds under the treasury stock method include the average unrecognized compensation expense of stock options that are in-the-money. This results in the "assumed" buyback of additional shares, thereby reducing the dilutive impact of stock options and warrants. Common equivalent shares have not been included in the net loss per share calculations for three and nine months ended September 30, 2014, because the effect of including them would have been anti-dilutive.

Basic and diluted net income (loss) per share were determined as follows:

| | Three months ended September 30, | | Nine months ended September 30, | |
|---|---|---|---|---|
| (in thousands, except share and per share amounts) | 2014 | 2013 | 2014 | 2013 |
| Net income (loss) | $ (2,209) | $ (899) | $ (17,026) | $ 3,322 |
| Weighted average shares outstanding | 532,258 | 508,655 | 524,595 | 502,349 |
| Basic net income (loss) per common share | $ (4.15) | $ (1.77) | $ (32.46) | $ 6.61 |
| Net income (loss) | $ (2,209) | $ (899) | $ (17,026) | $ 3,322 |
| Weighted average shares outstanding | 532,258 | 508,655 | 524,595 | 502,349 |
| Effect of dilutive options and warrants | — | — | — | 4,784 |
| Weighted average shares outstanding assuming dilution | 532,258 | 508,655 | 524,595 | 507,133 |
| Diluted net income (loss) per common share | $ (4.15) | $ (1.77) | $ (32.46) | $ 6.55 |

We did not include the following securities in the table below in the computation of diluted net income (loss) per common share because the securities were anti-dilutive during the periods presented:

| | Three months ended September 30, | | Nine months ended September 30, | |
|---|---|---|---|---|
| | 2014 | 2013 | 2014 | 2013 |
| Warrants | 577,756 | 712,879 | 577,756 | 712,879 |
| Stock options | 393,834 | 50,196 | 393,834 | 39,196 |
| Preferred stock Series A | 1,157,348 | 1,165,345 | 1,157,348 | 1,165,345 |
| Preferred stock Series B | 400,000 | 400,000 | 400,000 | 400,000 |
| Total | 2,528,938 | 2,328,420 | 2,528,938 | 2,317,420 |

### (8) Subsequent Events

On October 24, 2014, we effected a one-for-fifty reverse stock split approved by our Board of Directors and majority shareholders.

On October 24, 2014, we changed our name to PlasmaTech Biopharmaceuticals, Inc.

On December 1, 2014, we entered into a second Unsecured Grid Note, for up to $250,000 with SCO. As of December , 2014 we have drawn a total of $ ,000. The interest rate is 8% per annum and the maturity date is November 30, 2015 unless a financing of at least $5,000,000 occurs, in which event the note is required to be paid in full.

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**3,500,000 Shares of Common Stock**
**Warrants to Purchase 3,500,000 Shares of Common Stock**

# PlasmaTech Biopharmaceuticals, Inc.

**PROSPECTUS**

**H.C. Wainwright & Co.** **Aegis Capital Corp.**

**December 18, 2014**