HEMISPHERX BIOPHARMA INC Form 424B5 July 23, 2012

Filed Pursuant to Rule 424(b)(5) Registration No. 333-182216

PROSPECTUS SUPPLEMENT

(To Prospectus Dated July 2, 2012)

\$75,000,000

HEMISPHERX BIOPHARMA, INC.

Common Stock

We have entered into a sales agreement with the Maxim Group LLC relating to shares of our common stock offered by this prospectus supplement and the accompanying prospectus. In accordance with the terms of the sales agreement, we may offer and sell up to we may offer and sell an aggregate of up to \$75.0 million of our common stock, \$0.001 par value per share, from time to time through the Maxim Group LLC, acting as agent. Our common stock is listed on the NYSE MKT under the ticker symbol "HEB". Sales of shares of our common stock under this prospectus supplement, if any, may be made by any method permitted by law deemed to be an "at the market" offering as defined in Rule 415 under the Securities Act of 1933, as amended (the "Securities Act"), which includes sales made directly on the NYSE MKT, the existing trading market for our common stock, or sales made to or through a market maker other than on an exchange. With our express written consent, the sales agent may also sell shares of our common stock in privately negotiated transactions. The sales agent will make all sales on a best efforts basis using commercially reasonable efforts consistent with its normal trading and sales practices, on terms mutually agreed upon by the sales agent and us. The last reported sale price of our common stock on the NYSE MKT on July 20, 2012 was \$0.36 per share.

You should read "Risk Factors" beginning on page S-3 of this prospectus supplement and the risk factors described in other documents incorporated by reference herein before buying our securities.

The Maxim Group LLC will be entitled to compensation at a fixed commission rate of 4.0% of the gross sales price of shares sold pursuant to the Maxim Agreement, up to aggregate gross proceeds of \$10,000,000, and, thereafter, at a fixed commission rate of 3.0% of the gross sales price of shares sold pursuant to the Maxim Agreement. In connection with the sale of the common stock on our behalf, the Maxim Group LLC may be deemed to be an "underwriter" within the meaning of the Securities Act, and the compensation of the Maxim Group LLC may be deemed to be underwriting commissions or discounts.

We have agreed to indemnify the sales agent and its controlling persons against certain liabilities, including liabilities under the Securities Act. If we are unable to provide this indemnification, we will contribute to payments the sales agent and its controlling persons may be required to make in respect of those liabilities.

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

Maxim Group LLC

The date of this prospectus supplement is July 23, 2012.

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ABOUT THIS PROSPECTUS SUPPLEMENT

We provide information to you about this offering of shares of our common stock in this prospectus supplement, which describes the specific details regarding this offering, and in the accompanying prospectus, which provides general information, some of which may not apply to this offering. Generally, when we refer to this "prospectus," we are referring to both documents combined.

You should rely only on the information contained or incorporated by reference in this prospectus supplement and the accompanying prospectus. We have not, and the Maxim Group LLC has not, authorized anyone to provide you with information different from that contained or incorporated by reference in this prospectus supplement or the accompanying prospectus. These documents do not constitute an offer to sell or solicitation of an offer to buy these shares of common stock in any circumstance under which the offer or solicitation is unlawful. The information contained in this prospectus supplement, the accompanying prospectus and the documents incorporated by reference herein and therein are accurate only as of their respective dates, regardless of the time of delivery of this prospectus supplement or the sale of our common stock. If information in this prospectus supplement, or information incorporated by reference in this prospectus supplement and the accompanying prospectus that is of a more recent date than the accompanying prospectus, is inconsistent with the accompanying prospectus, this prospectus supplement, or the information incorporated by reference in this prospectus supplement and the accompanying prospectus, will apply and will supersede that information in the accompanying prospectus. References in this prospectus supplement to "Hemispherx," "we," "our" or "us" refer to Hemispherx Biopharma, Inc. and its subsidiaries.

PROSPECTUS SUPPLEMENT SUMMARY

This summary does not contain all of the information that you should consider before investing in our common stock. You should read this entire prospectus supplement and the accompanying prospectus carefully, including "Risk Factors," and the financial statements and other information incorporated by reference in this prospectus supplement and the accompanying prospectus, before making an investment in our common stock.

Our Business

We are a specialty pharmaceutical company based in Philadelphia, Pennsylvania and engaged in the clinical development of new drug therapies based on natural immune system enhancing technologies for the treatment of viral and immune based chronic disorders. We were founded in the early 1970s doing contract research for the National Institutes of Health. Since that time, we have established a strong foundation of laboratory, pre-clinical and clinical data with respect to the development of natural interferon and nucleic acids to enhance the natural antiviral defense system of the human body and to aid the development of therapeutic products for the treatment of certain chronic

diseases.

Our current strategic focus is derived from four applications of our two core pharmaceutical technology platforms Ampligen® and Alferon N Injection®. The commercial focus for Ampligen® includes application as a treatment for Chronic Fatigue Syndrome ("CFS") and as a vaccine enhancer (adjuvant) for therapeutic and/or preventative development related to influenza and cancer treatments. Alferon N Injection® is a Food and Drug Administration ("FDA") approved product with an indication for refractory or recurring genital warts. Alferon® LDO (Low Dose Oral) is a formulation currently under development targeting influenza. We own and operate a 43,000 sq. ft. FDA approved facility in New Brunswick, NJ.

Our Corporate Information

Our principal executive offices are located at One Penn Center, 1617 JFK Boulevard, Philadelphia, Pennsylvania 19103, and our telephone number is 215-988-0080. We maintain a website at "http://www.hemispherx.net." Information contained on our website is not considered to be a part of, nor incorporated by reference in, this prospectus.

THE OFFERING

Offering

price and proceeds:

Variable at-the-market pricing, with aggregate gross proceeds of up to \$75.0 million.

Manner of offering:

"At-the-market" offering that may be made from time to time through our agent, the Maxim Group LLC.

See "Plan of Distribution" on page S-7.

Use of proceed:

We plan to use the net proceeds from this offering to fund the commercialization of Alferon® and Ampligen® along with general corporate purposes, which may include working capital, capital expenditures, research and development expenditures, regulatory affairs expenditures, clinical trial expenditures, acquisitions of new technologies and investments, and the repayment, refinancing,

redemption or repurchase of indebtedness or capital stock. See "Use of Proceeds".

You should read the "Risk Factors" section of this prospectus supplement and in the documents Risk factors: incorporated by reference in this prospectus supplement for a discussion of risks to consider before

deciding to purchase shares of our common stock.

NYSE MKT

trading HEB

symbol:

RISK FACTORS

Investment in our common stock involves a high degree of risk. In addition to the other information included or incorporated by reference in this prospectus supplement and the accompanying prospectus, you should carefully consider the risks described below and in the section entitled "Risk Factors" in our Annual Report on Form 10-K for our most recent fiscal year filed with the Securities and Exchange Commission, and in other reports we file with the Securities and Exchange Commission that are incorporated by reference herein, before making an investment decision. The risks and uncertainties described therein and below could adversely affect our business, operating results and financial condition, as well as cause the value of our common stock to decline. You may lose all or part of your investment as a result. You should also refer to the other information contained in this prospectus supplement and the accompanying prospectus, or incorporated by reference, including our financial statements and the notes to those statements, and the information set forth under the caption "Special Note Regarding Forward-Looking Statements." The risks described below and contained in our Annual Report on Form 10-K and in our other periodic reports are not the only ones that we face. Additional risks not presently known to us or that we currently deem immaterial may also affect our business operations.

Risks Related to this Offering

We will have broad discretion in how we use the proceeds, and we may use the proceeds in ways in which you and other stockholders may disagree.

We plan to use the net proceeds from the sale of shares of our common stock in this offering to fund commercialization of Alferon® and Ampligen® and to meet our working capital needs, as well as for general corporate purposes. Pending these uses, we intend to invest the net proceeds in investment grade, interest bearing securities. Our management will have broad discretion in the application of the proceeds from this offering and could spend the proceeds in ways that do not necessarily improve our operating results or enhance the value of our common stock.

Investors in this offering will suffer immediate and substantial dilution in the net tangible book value per share of our common stock.

Because the assumed price per share of our common stock in this offering is substantially higher than the net tangible book value per share of common stock, investors in this offering will suffer immediate and substantial dilution in the net tangible book value per share of common stock. By way of example, assuming we sold 20,000,000 shares at an assumed price to the public of \$0.36 per share, the last reported sale price of our common stock on July 20, 2012, and after deducting the estimated commissions and offering expenses payable by us, if you purchase shares in this

offering, you will suffer immediate and substantial dilution of approximately \$0.09 per share in the net tangible book value of our common stock.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

Because the risk factors referred to above, in the Prospectus, in our Annual Report on Form 10-K for our most recent fiscal year filed with the Securities and Exchange Commission and in other reports we file with the Securities and Exchange Commission that are incorporated by reference herein, could cause actual results or outcomes to differ materially from those expressed in any forward-looking statements made by us, you should not place undue reliance on any such forward-looking statements. Further, any forward-looking statement speaks only as of the date on which it is made and we undertake no obligation to update any forward-looking statement or statements to reflect events or circumstances after the date on which such statement is made or reflect the occurrence of unanticipated events. New factors emerge from time to time, and it is not possible for us to predict which will arise. We cannot assess the impact of each factor on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements. Any statements in this prospectus and the information incorporated herein by reference about our expectations, beliefs, plans, objectives, assumptions or future events or performance that are not historical facts are forward-looking statements. You can identify these forward-looking statements by the use of words or phrases such as "believe", "may", "could", "will", "estimate", "continue", "anticipate", "intend", "seek", "plan", "expect", "should", or "would". Among the factors that could cause actual results to diff materially from those indicated in the forward-looking statements are risks and uncertainties inherent in our business including, without limitation: the potential therapeutic effect of our products, the possibility of obtaining regulatory approval, our ability to manufacture and sell any products, our ability to enter into arrangements with third party vendors, market acceptance or our products, our ability to earn a profit from sales or licenses of any drugs, our ability to discover new drugs in the future, changing market conditions, changes in laws and regulations affecting our industry, and issues related to the improvements and construction at of our New Brunswick, New Jersey facility. Recently we disclosed that we had come to agreement with the FDA on the filing requirements for our Complete Response in support of the Ampligen® New Drug Application ("NDA") for Chronic Fatigue Syndrome Treatment. Please note that the remaining steps to potentially gain FDA approval of the Ampligen® NDA, the final results of these and other ongoing activities could vary materially from our expectations and could adversely affect the chances for approval of the Ampligen® NDA. These activities and the ultimate outcomes are subject to a variety of risks and uncertainties, including but not limited to risks that (i) the complete response we ultimately submit in support of the Ampligen® NDA may not be accepted by the FDA or such acceptance may be delayed; (ii) the FDA may ask for additional data, information or studies to be completed or provided prior to approval; (iii) the FDA may require additional work related to the commercial manufacturing process to be completed prior to approval or may, in the course of the inspection of manufacturing facilities, identify issues to be resolved; and (iv) the FDA may determine that the complete response ultimately submitted by us is not "complete," potentially requiring us to conduct additional activities before we can re-file, if at all, the complete response. Any failure to satisfy the FDA's requirements could significantly delay, or preclude outright, approval of the Ampligen® NDA.

USE OF PROCEEDS

We plan to use the net proceeds from the sale of shares of our common stock in this offering to fund the commercialization of Ampligen® as well as that of Alferon N Injection®, along with general corporate purposes, which may include working capital, capital expenditures, research and development expenditures, regulatory affairs expenditures, clinical trial expenditures, acquisitions of new technologies and investments, and the repayment,

refinancing, redemption or repurchase of indebtedness or capital stock.

PRICE RANGE OF OUR COMMON STOCK

Our common stock is traded on the NYSE MKT under the symbol "HEB". The following table sets forth, for the periods indicated, the reported high and low sales prices per share of our common stock as reported by the NYSE MKT:

Fiscal Year Ended December 31, 2010 First Quarter Second Quarter Third Quarter Fourth Quarter	High \$0.84 \$0.87 \$0.62 \$0.57	Low \$0.56 \$0.44 \$0.44 \$0.46
Fiscal Year Ending December 31, 2011 First Quarter Second Quarter Third Quarter Fourth Quarter	High \$0.55 \$0.53 \$0.40 \$0.30	\$0.37
Fiscal Year Ending December 31, 2012 First Quarter Second Quarter Third Quarter (through July 20, 2012)	High \$0.47 \$0.39 \$0.44	

As of July 20, 2012, the closing price of our common stock as reported by the NYSE MKT was \$0.36 per share and there were approximately 220 holders of record of our common stock. This does not include the number of persons whose stock is in nominee or "street name" accounts through brokers.

DIVIDEND POLICY

We have never declared or paid any cash dividends on our common stock. We currently intend to retain any future earnings to finance the growth and development of our business. Therefore, we do not anticipate that we will declare or pay any cash dividends on our common stock in the foreseeable future. Any future determination to pay cash dividends will be at the discretion of our Board of Directors and will depend on our financial condition, results of operations, capital requirements, restrictions under any existing indebtedness and other factors the Board of Directors deems relevant.

DILUTION

If you purchase shares of our common stock from us, your interest will be diluted to the extent of the difference between the public offering price per share you pay and the net tangible book value per share of our common stock immediately after this offering. Our net tangible book value as of March 31, 2012, was approximately \$35.3 million, or \$0.26 per share of common stock. Net tangible book value per share is calculated by subtracting our total liabilities from our total tangible assets, which is total assets less intangible assets of approximately \$861,000, and dividing this amount by the 135,831,977 issued and outstanding shares of common stock outstanding as of March 31, 2012. For illustration purposes, assuming we sold 20,000,000 shares, the current maximum for which we have requested NYSE MKT approval, at an assumed price to the public of \$0.36 per share, the last reported sale price of our common stock on July 20, 2012, and after deducting the estimated commissions and offering expenses of \$383,000 payable by us, our adjusted net tangible book value as of March 31, 2012 would have been approximately \$42.1 million, or \$0.27 per share of common stock. This would represent an immediate increase in the net tangible book value of approximately \$0.01 per share to our existing stockholders and an immediate and substantial dilution in net tangible book value of \$0.09 per share of common stock to new investors. The following table illustrates this calculation on a per share basis:

Assumed public offering price per share		Existing Stockholders (Approx.)		New Investors (Approx.) \$ 0.36	
Net tangible book value per share as of March 31, 2012	\$	0.26			
Increase per share attributable to investors participating in this offering	\$	0.01			
As adjusted net tangible book value per share after this offering	\$	0.27	\$	0.27	
Dilution per share to investors participating in this offering			\$	0.09	

The information in the table above is provided for illustrative purposes and assumes that 20,000,000 shares of common stock offered hereby is sold at a price of \$0.36 per share, the last reported sale price of our common stock on July 20, 2012. The shares, if any, sold pursuant to the Maxim agreement will be sold from time to time at various prices that will depend largely on the market price of our common stock at the time of sale. An increase, or decrease, of \$0.10 per share in the price at which the shares are sold from the assumed offering price of \$0.36 per share shown in the table above, assuming 20,000,000 shares of common stock offered are sold at that price, would increase (or decrease) our adjusted net tangible book value per share after the offering by approximately \$H.02 and \$0.00 per share, respectively, and the dilution in net tangible book value per share new investors in this offering by approximately \$0.18 and \$0.00 per share, respectively, after deducting the estimated commissions of the Maxim Group LLC and estimated aggregate offering expenses payable by us.

The information in the foregoing table does not take into account further dilution to new investors that could occur upon the exercise of outstanding options having a per share exercise price less than the price per share at which new investors purchase the shares offered hereby. As of July 20, 2012, there were 135,831,977 shares of common stock outstanding, which does not include:

11,609,912 shares of our common stock issuable upon exercise of outstanding stock options under our stock option plans as of July 20, 2012, at a weighted average exercise price of \$1.84; and

10,978,246 shares of our common stock issuable upon exercise of outstanding warrants as of July 20, 2010 at a weighted average price of \$1.44 per share.

PLAN OF DISTRIBUTION

We have entered into a sales agreement with the Maxim Group LLC ("Maxim"). Subject to the terms and conditions of the sales agreement, we may offer and sell up \$75,000,000 of shares of our common stock from time to time through Maxim. Sales of the shares, if any, will be made by means of ordinary brokers' transactions on the NYSE MKT at market prices. Additionally, under the terms of the sales agreement, we may also sell shares of our common stock through Maxim, as sales agent, on the NYSE MKT at negotiated prices or at prices related to the prevailing market price. With our express written consent, Maxim also may also sell shares of our common stock in privately negotiated transactions. As sales agent, Maxim will not engage in any transactions that stabilize our common stock.

Maxim, as sales agent, will use its commercially reasonable efforts to sell shares of common stock on our behalf on a daily basis or as otherwise agreed upon by us and Maxim. We will designate the maximum amount of shares of common stock to be sold through Maxim on a daily basis or otherwise as we and Maxim agree. We may instruct Maxim not to sell shares of common stock if the sales cannot be effected at or above the price designated by us in any such instruction. We or Maxim may suspend the offering of shares of common stock by notifying the other.

We will pay Maxim a commission equal to 3.0% of the gross sales price of shares sold, up to aggregate gross proceeds of \$10,000,000, and, thereafter, at a fixed commission rate of 4.0% of the gross sales price of share sold. The remaining sales proceeds, after deducting any expenses payable by us and any transaction fees imposed by any governmental or self-regulatory organization in connection with the sales, will equal our net proceeds for the sale of the shares. All expenses of the offering will be paid by us. We estimate that the expenses of the offering payable by us, excluding discounts and commissions, will be approximately \$95,000.

Settlement for sales of common stock will occur on the third business day following the date on which any sales were made in return for payment of the net proceeds to us. There is no arrangement for funds to be received in an escrow, trust or similar arrangement.

In connection with the sale of common stock on our behalf, Maxim may be deemed to be an "underwriter" within the meaning of the Securities Act, and the compensation paid to Maxim may be deemed to be underwriting commissions or discounts. We have agreed to indemnify Maxim against certain liabilities, including liabilities under the Securities Act, or to contribute to payments that Maxim may be required to make. Maxim may engage in transactions with, or perform other services for, us in the ordinary course of business.

Our shares are traded on the NYSE MKT under the symbol "HEB".

In compliance with the guidelines of the Financial Industry Regulatory Authority, Inc. ("FINRA"), the maximum discount or commission to be received by any FINRA member or independent broker dealer may not exceed 8% of the aggregate offering price of the shares offered pursuant to this prospectus supplement.

In connection with any future sales of common stock made under the sales agreement or terms agreement, Regulation M may require that Maxim observe certain restrictions with respect to its trading of our common stock. Such restrictions could negatively impact the liquidity in our common stock.

The offering of common stock pursuant to the sales agreement will terminate upon the earlier of (i) the sale of \$75,000,000 worth of shares of common stock subject to the sales agreement, (ii) the termination of the sales agreement by either Maxim or us, or three years after the effective date of the registration statement.

LEGAL MATTERS

The validity of the common stock offered by this prospectus supplement and the accompanying prospectus will be passed upon for us by Silverman Sclar Shin & Byrne PLLC, New York, New York. Certain legal matters in connection with the offering of the common stock will be passed upon for Maxim Group LLC by Ellenoff Grossman & Schole LLP, New York, New York.

EXPERTS

The financial statements incorporated in this prospectus supplement by reference from the Company's Annual Report on Form 10-K have been audited by McGladrey LLP, an independent registered public accounting firm, as stated in their report, which is incorporated herein by reference (which report expresses an unqualified opinion on the consolidated financial statements). Such financial statements have been so incorporated in reliance upon the report of such firm given upon their authority as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

This prospectus is part of a registration statement on Form S-3 that we filed with the SEC. This prospectus does not contain all of the information included in the registration statement. For further information about us and our securities, you should refer to the registration statement and the exhibits filed with the registration statement.

We are subject to the information requirements of the Securities Exchange Act of 1934 and file annual, quarterly and current reports, proxy statements and other information with the SEC. You can read our SEC filings, including the registration statement, over the Internet at the SEC's website at www.sec.gov or through our website at www.hemispherx.net. Information contained on our website is not considered to be a part of, nor incorporated by reference in, this prospectus. You may also read and copy any document we file with the SEC at its Public Reference Room at 100 F Street, NE, Washington, D.C. 20549.

You may also obtain copies of the documents at prescribed rates by writing to the Public Reference Room of the SEC at 100 F Street, NE, Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information on the operation of the Public Reference Room.

IMPORTANT INFORMATION INCORPORATED BY REFERENCE

The SEC allows us to "incorporate by reference" the information that we file with them, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is considered to be an important part of this prospectus, and later information that we file with the SEC will automatically update and supersede this information. We incorporate by reference the following documents and any future filing made with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934 prior to the termination of the offering:

- our annual report on Form 10-K for the year ended December 31, 2011;
- our quarterly report on Form 10-Q for the quarter ended March 31, 2012;
- our current reports on Form 8-K (and 8-K/A) filed on April 17, 2012, June 8, 2012 and July 11, 2012;
 - our definitive proxy statement on Schedule 14A filed on September 16, 2011; and
- A description of our common stock contained in our registration statement on Form S-1, SEC File No. 333-117178, and any amendment or report filed for the purpose of updating this description.

You may request a copy of these filings, at no cost, by writing or telephoning us at the following address:

Investor Relations One Penn Center, 1617 JFK Blvd., Suite 660 Philadelphia, PA 19103

Phone: 215-988-0080 Fax: 215-988-1739

Email: ir@hemispherx.net

You should rely only on the information incorporated by reference or provided in this prospectus. We have not authorized anyone else to provide you with different information. We will not make offers to sell these shares in any jurisdiction where the offer is not permitted.

\$75,000,000	
HEMISPHERX BIOPHARMA, INC.	
Common Stock	
PROSPECTUS SUPPLEMENT	
Maxim Group LLC	
July 23, 2012	

PROSPECTUS
HEMISPHERX BIOPHARMA, INC.
\$150,000,000
Debt Securities
Preferred Stock
Common Stock
Debt Warrants
Equity Warrants
Units
We may from time to time offer to sell any combination of debt securities, preferred stock, common stock, debt warrants, equity warrants and units described in this prospectus in one or more offerings. The aggregate initial offering price of all securities sold under this prospectus will not exceed \$150,000,000.
This prospectus provides a general description of the securities we may offer. Each time we sell securities, we will provide specific terms of the securities offered in a supplement to this prospectus. The prospectus supplement may

We will sell these securities directly to our stockholders or to purchasers or through agents on our behalf or through underwriters or dealers as designated from time to time. If any agents or underwriters are involved in the sale of any of these securities, the applicable prospectus supplement will provide the names of the agents or underwriters and any applicable fees, commissions or discounts.

also add, update or change information contained in this prospectus. You should read this prospectus and the applicable prospectus supplement carefully before you invest in any securities. This prospectus may not be used to

consummate a sale of securities unless accompanied by the applicable prospectus supplement.

Our common stock is traded on the NYSE MKT under the symbol "HEB." On June 15, 2012, the last reported sale price for our common stock on the NYSE MKT was \$0.29 per share.
Investing in our securities involves risks. See <u>"Risk Factors"</u> on page 2.
Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.
The date of this prospectus is July 2, 2012

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ABOUT THIS PROSPECTUS

This prospectus is a part of a registration statement that we filed with the Securities and Exchange Commission, or the Commission, utilizing a "shelf" registration process. Under this shelf registration process, we may offer to sell any combination of the securities described in this prospectus in one or more offerings up to a total dollar amount of \$150,000,000. This prospectus provides you with a general description of the securities we may offer. Each time we sell securities under this shelf registration, we will provide a prospectus supplement that will contain specific information about the terms of that offering. The prospectus supplement may also add, update or change information contained in this prospectus. To the extent that any statement that we make in a prospectus supplement is inconsistent with statements made in this prospectus, the statements made in this prospectus will be deemed modified or superseded by those made in the prospectus supplement. You should read both this prospectus and any prospectus supplement, including all documents incorporated herein or therein by reference, together with additional information described under "Where You Can Find More Information" and "Information Incorporated by Reference." We may only use this prospectus to sell the securities if it is accompanied by a prospectus supplement.

We have not authorized any dealer, salesman or other person to give any information or to make any representation other than those contained or incorporated by reference in this prospectus and the accompanying prospectus supplement. You must not rely upon any information or representation not contained or incorporated by reference in this prospectus or the accompanying prospectus supplement. This prospectus and the accompanying prospectus supplement do not constitute an offer to sell or the solicitation of an offer to buy any securities other than the registered securities to which they relate, nor do this prospectus and the accompanying prospectus supplement constitute an offer to sell or the solicitation of an offer to buy securities in any jurisdiction to any person to whom it is unlawful to make such offer or solicitation in such jurisdiction. You should not assume that the information contained in this prospectus and the accompanying prospectus supplement is accurate on any date subsequent to the date set forth on the front of the document or that any information we have incorporated by reference is correct on any date subsequent to the date of the document incorporated by reference, even though this prospectus and any accompanying prospectus supplement is delivered or securities are sold on a later date.

ABOUT HEMISPHERX

We are a specialty pharmaceutical company based in Philadelphia, Pennsylvania and engaged in the clinical development of new drug therapies based on natural immune system enhancing technologies for the treatment of viral and immune based chronic disorders. We were founded in the early 1970s doing contract research for the National Institutes of Health. Since that time, we have established a strong foundation of laboratory, pre-clinical and clinical data with respect to the development of natural interferon and nucleic acids to enhance the natural antiviral defense system of the human body and to aid the development of therapeutic products for the treatment of certain chronic diseases.

Our current strategic focus is derived from four applications of our two core pharmaceutical technology platforms Ampligen® and Alferon N Injection®. The commercial focus for Ampligen® includes application as a treatment for Chronic Fatigue Syndrome ("CFS") and as a vaccine enhancer (adjuvant) for therapeutic and/or preventative development related to influenza and cancer treatments. Alferon N Injection® is a Food and Drug Administration ("FDA") approved product with an indication for refractory or recurring genital warts. Alferon® LDO (Low Dose Oral) is a formulation currently under development targeting influenza. We own and operate a 43,000 sq. ft. FDA approved facility in New Brunswick, NJ.

Our principal executive offices are located at One Penn Center, 1617 JFK Boulevard, Philadelphia, Pennsylvania 19103, and our telephone number is 215-988-0080. We maintain a website at "http://www.hemispherx.net." Information contained on our website is not considered to be a part of, nor incorporated by reference in, this prospectus Unless the context requires otherwise, references in this prospectus to "Hemispherx," the Company," "we," "us" and "our" refer to Hemispherx Biopharma, Inc.

RISK FACTORS

You should carefully consider the specific risks set forth under "Risk Factors" in the applicable prospectus supplement, under "Risk Factors" under Item 1A of Part I of our most recent annual report on Form 10-K, and under "Risk Factors" under Item 1A of Part II of our subsequent quarterly reports on Form 10-Q, as updated by our subsequent filings under the Securities Exchange Act of 1934, as amended, or the Exchange Act, each of which is incorporated by reference in this prospectus, before making an investment decision. For more information, see "Information Incorporated by Reference."

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

Any statements in this prospectus and the information incorporated herein by reference about our expectations, beliefs, plans, objectives, assumptions or future events or performance that are not historical facts are forward-looking statements. You can identify these forward-looking statements by the use of words or phrases such as "believe", "may", "could", "will", "estimate", "continue", "anticipate", "intend", "seek", "plan", "expect", "should", or "would". Among the fact cause actual results to differ materially from those indicated in the forward-looking statements are risks and uncertainties inherent in our business including, without limitation: the potential therapeutic effect of our products, the possibility of obtaining regulatory approval, our ability to manufacture and sell any products, our ability to enter into arrangements with third party vendors, market acceptance or our products, our ability to earn a profit from sales or licenses of any drugs, our ability to discover new drugs in the future, changing market conditions, changes in laws and regulations affecting our industry, issues related to the improvements and construction at of our New Brunswick, New Jersey facility; and other risks detailed in the documents incorporated by reference in this prospectus. If any of these risks or uncertainties materializes or any of these assumptions proves incorrect, our results could differ materially from the expectations in these statements. The forward-looking statements included in this prospectus are made only

as of the date of this prospectus, and we are not under any obligation to update our respective forward-looking statements and do not intend to do so.

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USE OF PROCEEDS

Unless otherwise indicated in the applicable prospectus supplement, we intend to use the net proceeds from the sale of securities under this prospectus to fund commercialization of Alferon® and Ampligen® along with general corporate purposes, which may include working capital, capital expenditures, research and development expenditures, regulatory affairs expenditures, clinical trial expenditures, acquisitions of new technologies and investments, and the repayment, refinancing, redemption or repurchase of indebtedness or capital stock. We will set forth in the particular prospectus supplement our intended use for the net proceeds we receive from the sale of our securities under such prospectus supplement. Pending the uses described above, we plan to invest the net proceeds of this offering in short and medium-term, interest-bearing obligations, investment-grade instruments, certificates of deposit or direct or guaranteed obligations of the U.S. government.

RATIO OF EARNINGS TO FIXED CHARGES

The following summary is qualified by the more detailed information appearing in the computation table found in Exhibit 12.1 to the registration statement of which this prospectus is part and the historical financial statements, including the notes to those financial statements, incorporated by reference in this prospectus. Our ratio of earnings to fixed charges for each of the years ended December 31, 2007 to 2011 and the three months ended March 31, 2012 was as follows:

						Three Months
	Year Ended December 31,					Ended
						March 31,
	2007	2008	2009	2010	2011	2012
Ratio of earnings to fixed charges(1)	_					

For purposes of computing this ratio of earnings to fixed charges, fixed charges consist of interest expense and premiums, discounts and capital expenses related to debt before income taxes plus fixed charges. Earnings were insufficient to cover fixed charges by approximately \$17.7 million, \$12.2 million, \$7.2 million, \$13.1 million and \$9.0 million for the years ended December 31, 2007, 2008, 2009, 2010 and 2011and \$2.3 million for the first three months of 2012. We have not included a ratio of earnings to combined fixed charges and preferred stock dividends because we do not have any preferred stock outstanding as of the date of this prospectus.

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We have incurred approximately \$59.4 million in fixed charges in the past five years. Fixed charges mainly represent interest expensed as well as amortized discounts related to indebtedness. We have incurred Net Losses totaling approximately \$18.1 million, \$12.2 million, \$7.2 million, \$13.1 million and \$9.0 million for the years ended December 31, 2007, 2008, 2009, 2010 and 2011, respectively, and \$2.3 million for the first three months of 2012. Until we achieve profitability, we will not be able to cover our fixed charges from earnings.

PLAN OF DISTRIBUTION

We may sell the securities from time to time pursuant to underwritten public offerings, negotiated transactions, block trades or a combination of these methods. We may sell the securities separately or together:

through one or more underwriters or dealers in a public offering and sale by them;

through agents; and/or

directly to one or more purchasers.

We may distribute the securities from time to time in one or more transactions:

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

at market prices prevailing at the time of sale;

• at prices related to such prevailing market prices; or

at negotiated prices.

We may solicit directly offers to purchase the securities being offered by this prospectus. We may also designate agents to solicit offers to purchase the securities from time to time. We may sell the securities being offered by this prospectus by any method permitted by law, including sales deemed to be an "at the market" offering as defined in Rule 415(a)(4) of the Securities Act of 1933, as amended, or the Securities Act, including without limitation sales made directly on the NYSE MKT, on any other existing trading market for our securities or to or through a market maker.

We will name in a prospectus supplement any agent involved in the offer or sale of our securities.

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If we utilize a dealer in the sale of the securities being offered by this prospectus, we will sell the securities to the dealer, as principal. The dealer may then resell the securities to the public at varying prices to be determined by the dealer at the time of resale.

If we utilize an underwriter in the sale of the securities being offered by this prospectus, we will execute an underwriting agreement with the underwriter at the time of sale and we will provide the name of any underwriter in the prospectus supplement that the underwriter will use to make resales of the securities to the public. In connection with the sale of the securities, we or the purchasers of securities for whom the underwriter may act as agent may compensate the underwriter in the form of underwriting discounts or commissions. The underwriter may sell the securities to or through dealers, and the underwriter may compensate those dealers in the form of discounts, concessions or commissions.

We will provide in the applicable prospectus supplement any compensation we will pay to underwriters, dealers or agents in connection with the offering of the securities, and any discounts, concessions or commissions allowed by underwriters to participating dealers. In compliance with guidelines of the Financial Industry Regulatory Authority, or FINRA, the maximum consideration or discount to be received by any FINRA member or independent broker dealer may not exceed 8% of the aggregate amount of the securities offered pursuant to this prospectus and any applicable prospectus supplement. Underwriters, dealers and agents participating in the distribution of the securities may be deemed to be underwriters within the meaning of the Securities Act, and any discounts and commissions received by them and any profit realized by them on resale of the securities may be deemed to be underwriting discounts and commissions. We may enter into agreements to indemnify underwriters, dealers and agents against civil liabilities, including liabilities under the Securities Act, or to contribute to payments they may be required to make in respect thereof.

Unless otherwise specified in the prospectus supplement, each series of the securities will be a new issue with no established trading market, other than our common stock, which is currently listed on the NYSE MKT. We will apply to the NYSE MKT to list any additional shares of common stock that we offer and sell pursuant to a prospectus supplement. To facilitate the offering of securities, certain persons participating in the offering may engage in transactions that stabilize, maintain or otherwise affect the price of the securities. This may include over-allotments or short sales of the securities, which involves the sale by persons participating in the offering of more securities than we sold to them. In these circumstances, these persons would cover such over-allotments or short positions by making purchases in the open market or by exercising their over-allotment option. In addition, these persons may stabilize or maintain the price of the securities by bidding for or purchasing securities in the open market or by imposing penalty bids, whereby selling concessions allowed to dealers participating in the offering may be reclaimed if securities sold by them are repurchased in connection with stabilization transactions. The effect of these transactions may be to stabilize or maintain the market price of the securities at a level above that which might otherwise prevail in the open market. These transactions may be discontinued at any time.

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

We may enter into derivative transactions with third parties, or sell securities not covered by this prospectus to third parties in privately negotiated transactions. If the applicable prospectus supplement so indicates, in connection with any derivative transaction, the third parties may sell securities covered by this prospectus and the applicable prospectus supplement, including in short sale transactions. If so, the third party may use securities pledged by us or borrowed from us or others to settle those sales or to close out any related open borrowings of stock, and may use securities received from us in settlement of those derivatives to close out any related open borrowings of stock. The third party in such sale transactions will be an underwriter and, if not identified in this prospectus, will be identified in the applicable prospectus supplement or a post-effective amendment to the registration statement of which this prospectus is a part. In addition, we may otherwise loan or pledge securities to a financial institution or other third party that in turn may sell the securities short using this prospectus. Such financial institution or other third party may transfer its economic short position to investors in our securities or in connection with a concurrent offering of other securities.

The underwriters, dealers and agents may engage in transactions with us, or perform services for us, in the ordinary course of business.

DESCRIPTION OF DEBT SECURITIES

The following description, together with the additional information we include in any applicable prospectus supplement, summarizes certain general terms and provisions of the debt securities that we may offer under this prospectus. When we offer to sell a particular series of debt securities, we will describe the specific terms of the series in a supplement to this prospectus. We will also indicate in the prospectus supplement the extent to which the general terms and provisions described in this prospectus apply to a particular series of debt securities.

We may issue debt securities either separately, or together with, or upon the conversion or exercise of or in exchange for, other securities described in this prospectus. Debt securities may be our senior, senior subordinated or subordinated obligations and, unless otherwise specified in a supplement to this prospectus, the debt securities will be our direct, unsecured obligations and may be issued in one or more series.

The debt securities will be issued under an indenture between us and a trustee to be identified in the applicable prospectus supplement. We have summarized select portions of the indenture below. The summary is not complete. The form of the indenture has been filed as an exhibit to the registration statement of which this prospectus forms a part and you should read the indenture for provisions that may be important to you. In the summary below, we have included references to the section numbers of the indenture so that you can easily locate these provisions. Capitalized terms used in the summary and not defined herein have the meanings specified in the indenture.

As used in this section only, "Hemispherx," "we," "our" or "us" refer to Hemispherx Biopharma, Inc. excluding our subsidiaries, unless expressly stated or the context otherwise requires.

General

The terms of each series of debt securities will be established by or pursuant to a resolution of our board of directors and set forth or determined in the manner provided in a resolution of our board of directors, in an officer's certificate or by a supplemental indenture. (Section 2.2) The particular terms of each series of debt securities will be described in a prospectus supplement relating to such series (including any pricing supplement or term sheet).

We can issue an unlimited amount of debt securities under the indenture that may be in one or more series with the same or various maturities, at par, at a premium, or at a discount. (Section 2.1) We will set forth in a prospectus supplement (including any pricing supplement or term sheet) relating to any series of debt securities being offered, the aggregate principal amount and the following terms of the debt securities, if applicable:

the title and ranking of the debt securities (including the terms of any subordination provisions);

the price or prices (expressed as a percentage of the principal amount) at which we will sell the debt securities;

any limit on the aggregate principal amount of the debt securities;

the date or dates on which the principal of the debt securities of the series is payable;

the rate or rates (which may be fixed or variable) per annum or the method used to determine the rate or rates (including any commodity, commodity index, stock exchange index or financial index) at which the debt securities will bear interest, the date or dates from which interest will accrue, the date or dates on which interest will commence and be payable and any regular record date for the interest payable on any interest payment date;

the place or places where principal of, and interest, if any, on the debt securities will be payable (and the method of such payment), where the securities of such series may be surrendered for registration of transfer or exchange, and where notices and demands to us in respect of the debt securities may be delivered;

the period or periods within which, the price or prices at which and the terms and conditions upon which we may redeem the debt securities;