HEMISPHERX BIOPHARMA INC
Form S-8 POS
September 29, 2009

As filed with the Securities and Exchange Commission on September 29, 2009
Registration No. 333-160499

SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

POST-EFFECTIVE AMENDMENT NO. 1 TO

FORM S-8
REGISTRATION STATEMENT
Under the Securities Act of 1933

HEMISPHERX BIOPHARMA, INC.
(Exact name of registrant as specified in its charter)

Delaware	52-0845822
(State or jurisdiction of incorporation or organization)	(I.R.S. Employer Identification Number)

1617 JFK Boulevard
Philadelphia, Pennsylvania 19103
(215) 988-0080
(Address of Principal Executive Offices)(Zip Code)

HEMISPHERX BIOPHARMA, INC. 2009 EQUITY INCENTIVE PLAN
(full title of the plan)

William A. Carter, M.D., Chief Executive Officer
Hemispherx Biopharma, Inc.
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Philadelphia, Pennsylvania 19103
(215) 988-0080
(Name, Address & Telephone number, including area code, of agent for service)

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

Large accelerated filer ¨	Accelerated filer x
Non-accelerated filer ¨	Smaller Reporting Company ¨

Pursuant to Rule 429 under the Securities Act of 1933, as amended, the prospectus included in this Registration Statement also relates to the remaining unsold shares which were previously registered by the Registrant on Form S-8 under Registration Statement Nos. 333-57134, 333-118903 and 333-155528.

EXPLANATORY NOTE

This Post-Effective Amendment No. 1 to our Registration Statement on Form S-8 (File No. 333-160499) is being filed in order to register for resale 10,330,078 shares of our common stock, par value $0.001, which have been issued or are issuable under the Hemispherx Biopharma, Inc. 2009 Equity Incentive Plan, the Hemispherx Biopharma, Inc. 2007 Equity Incentive Plan, the Hemispherx Biopharma, Inc. 2004 Equity Incentive Plan, the Hemispherx Biopharma, Inc. 1990 Amended And Restated Employee Stock Option Plan and our 2003 Directors' Compensation Plan (collectively, the "Plans") to individuals who may be deemed to be "affiliates," as that term is defined in Rule 405 under the Securities Act of 1933, as amended (the "Securities Act"), of Hemispherx.

This Post-Effective Amendment No. 1 includes a reoffer prospectus, prepared in accordance with the requirements of Form S-3 which may be used for the offer and sale of the securities registered hereunder pursuant to General Instruction C of Form S-8.

Unless otherwise indicated, the terms "Hemispherx," the "Company," "we," "us," and "our" refer to Hemispherx Biopharma, Inc.

REOFFER PROSPECTUS

HEMISPHERX BIOPHARMA, INC.

10,330,078 Shares

COMMON STOCK

This prospectus relates to 10,330,078 shares of our common stock, par value $0.001 per share, which we have issued or will issue upon exercise of outstanding options, warrants and incentive rights to certain of our officers, directors and employees. All of these shares have been issued or are issuable pursuant to the Plans. From time to time, these individuals, who are named in this prospectus, may offer and sell the shares for their own accounts. We will not receive any proceeds from such sales. We will, however, receive proceeds from the exercise of options and warrants, if any.

The selling stockholders identified in this prospectus may be deemed to be "affiliates" as that term is defined under Rule 405 under the Securities Act.

The shares may be considered "control securities" and/or "restricted securities" under the Securities Act prior to their sale under this reoffer prospectus. This reoffer prospectus has been prepared for the purpose of registering the shares to allow for future sales under the Securities Act by selling stockholders, on a continuous or delayed basis, to the public without restriction. The selling stockholders and participating brokers and dealers may be deemed to be "underwriters" within the meaning of the Securities Act in which event any profits on the sale of shares by those selling stockholders and any commissions or discounts received by those brokers or dealers may be deemed to be underwriting compensation under the Securities Act.

Our common stock is traded on the NYSE Amex under the symbol "HEB." On September 24, 2009, the last reported sale price for our common stock on the NYSE Amex was $2.01 per share.

The selling stockholders may sell their shares from time to time on the NYSE Amex or otherwise, in one or more transactions at fixed prices, at prevailing market prices at the time of sale or at prices negotiated with purchasers. The selling stockholders will be responsible for any commissions or discounts due to brokers or dealers.

Please see the risk factors beginning on page 4 to read about certain factors you should consider before buying shares of common stock.

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

The date of this prospectus is September 29, 2009

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PROSPECTUS SUMMARY

The following is a brief summary of certain information contained elsewhere in this prospectus or incorporated in this prospectus by reference. This summary is not intended to be a complete description of the matters covered in this prospectus and is qualified in its entirety by reference to the more detailed information contained or incorporated by reference in this prospectus. You are urged to read this prospectus in its entirety, including all materials incorporated in this prospectus by reference.

The registration statement that contains this prospectus, including the exhibits to the registration statement, contains additional information about us and the securities being offered under this prospectus. You should read the registration statement and the accompanying exhibits for further information. The registration statement and exhibits can be read and are available to the public over the Internet at the SEC's website at http://www.sec.gov as described under the heading "Where You Can Find More Information."

About Hemispherx

We are a specialty pharmaceutical company engaged in the clinical development, manufacture, marketing and distribution 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 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 both therapeutic and preventative vaccine development. Alferon N Injection® is an FDA approved product with an indication for refractory or recurring genital warts. Alferon LDO (Low Dose Oral) is an application currently under early stage development targeting influenza and viral diseases both as an adjuvant as well as a single entity anti-viral.

Ampligen® is an experimental drug currently undergoing clinical development for the treatment of CFS. In August 2004, we completed a Phase III clinical trial (“AMP 516”) treating CFS patients with Ampligen® and we are presently in the registration process for a new drug application (“NDA”) with the Food and Drug Administration (“FDA”). In July 2008, the FDA accepted for review our NDA for Ampligen® to treat CFS. On February 18, 2009, we were notified by the FDA that the originally scheduled Prescription Drug User Fee Act (“PDUFA”) date of February 25, 2009 has been extended to May 25, 2009. On May 22, 2009, we were notified by the FDA that it may require up to one to two additional weeks to take action beyond the scheduled PDUFA action date of May 25, 2009. We have not heard from the FDA since then.

We own and operate a 43,000 sq. ft. FDA approved facility in New Brunswick, New Jersey primarily designed to produce Alferon N Injection®. In 2006, we completed the installation of a polymer production line to produce Ampligen® raw materials on a more reliable and consistent basis.

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.

RISK FACTORS

The following cautionary statements identify important factors that could cause our actual results to differ materially from those projected in the forward-looking statements made in this prospectus. Among the key factors that have a direct bearing on our results of operations are:

Risks Associated With Our Business

No assurance of successful product development.

Ampligen® and related products. The development of Ampligen® and our other related products is subject to a number of significant risks. Ampligen® may be found to be ineffective or to have adverse side effects, fail to receive necessary regulatory clearances, be difficult to manufacture on a commercial scale, be uneconomical to market or be precluded from commercialization by proprietary right of third parties. Our products are in various stages of clinical and pre-clinical development and require further clinical studies and appropriate regulatory approval processes before any such products can be marketed. We do not know when, if ever, Ampligen® or our other products will be generally available for commercial sale for any indication. Generally, only a small percentage of potential therapeutic products are eventually approved by the FDA for commercial sale. Please see the next risk factor.

Alferon N Injection®. Although Alferon N Injection® is approved for marketing in the United States for the intra-lesional treatment of refractory or recurring external genital warts in patients 18 years of age or older, to date it has not been approved for other indications. We face many of the risks discussed above, with regard to developing this product for use to treat other ailments.

Our drugs and related technologies are investigational and subject to regulatory approval. If we are unable to obtain regulatory approval, our operations will be significantly adversely affected.

All of our drugs and associated technologies, other than Alferon N Injection®, are investigational and must receive prior regulatory approval by appropriate regulatory authorities for general use and are currently legally available only through clinical trials with specified disorders. At present, Alferon N Injection® is only approved for the intra-lesional treatment of refractory or recurring external genital warts in patients 18 years of age or older. Use of Alferon N Injection® for other indications will require regulatory approval.

Our products, including Ampligen®, are subject to extensive regulation by numerous governmental authorities in the U.S. and other countries, including, but not limited to, the FDA in the U.S., the Health Protection Branch ("HPB") of Canada, and the Agency for the Evaluation of Medicinal Products ("EMEA") in Europe. Obtaining regulatory approvals is a rigorous and lengthy process and requires the expenditure of substantial resources. In order to obtain final regulatory approval of a new drug, we must demonstrate to the satisfaction of the regulatory agency that the product is safe and effective for its intended uses and that we are capable of manufacturing the product to the applicable regulatory standards. We require regulatory approval in order to market Ampligen® or any other proposed product and receive product revenues or royalties. We cannot assure you that Ampligen® will ultimately be demonstrated to be safe or efficacious. In addition, while Ampligen® is authorized for use in clinical trials including a cost recovery program in the United States and Europe, we cannot assure you that additional clinical trial approvals will be authorized in the United States or in other countries, in a timely fashion or at all, or that we will complete these clinical trials.

We filed an NDA with the FDA for treatment of CFS on October 10, 2007. On December 5, 2007 we received a Refusal to File letter from the FDA as our NDA filing was deemed "not substantially complete". We responded to the FDA's concerns by filing amendments to our NDA on April 25, 2008. These amendments should allow the FDA reviewers to better evaluate independently the statistical efficacy/safety conclusions of our NDA for the use of Ampligen® in treating CFS. On July 7, 2008, the FDA accepted our NDA filing for review. However, there are no assurances that upon review of the NDA that it will be approved by the FDA. On February 18, 2009, we were notified by the FDA that the originally scheduled PDUFA date of February 25, 2009 has been extended to May 25, 2009. On May 22, 2009, we were notified by the FDA that it may require up to one to two additional weeks to take action beyond the scheduled PDUFA action date of May 25, 2009. Since that date, we have received no further communication from the FDA on this matter.

If Ampligen® or one of our other products does not receive regulatory approval in the U.S. or elsewhere, our operations most likely will be materially adversely affected.

Alferon® LDO is undergoing pre-clinical testing for possible prophylaxis against avian flu. Additional studies are anticipated for swine H1N1. While the studies to date have been encouraging, preliminary testing in the laboratory and animals is not necessarily predictive of successful results in clinical testing or human treatment. No assurance can be given that similar results will be observed in clinical trials. Use of Alferon® as a possible treatment of avian flu requires prior regulatory approval. Only the FDA can determine whether a drug is safe, effective or promising for treating a specific application. As discussed in the prior risk factor, obtaining regulatory approvals is a rigorous and lengthy process.

We may continue to incur substantial losses and our future profitability is uncertain.

We began operations in 1966 and last reported net profit from 1985 through 1987. Since 1987, we have incurred substantial operating losses, as we pursued our clinical trial effort to get our experimental drug, Ampligen®, approved. As of June 30, 2009, our accumulated deficit was approximately $204,366,000. We have not yet generated significant revenues from our products and may incur substantial and increased losses in the future. We cannot assure that we will ever achieve significant revenues from product sales or become profitable. We require, and will continue to require, the commitment of substantial resources to develop our products. We cannot assure that our product development efforts will be successfully completed or that required regulatory approvals will be obtained or that any products will be manufactured and marketed successfully, or be profitable.

We may require additional financing which may not be available.

The development of our products will require the commitment of substantial resources to conduct the time-consuming research, preclinical development, and clinical trials that are necessary to bring pharmaceutical products to market. As of June 30, 2009, thanks to our receipt of significant proceeds from the sale of our securities, we had approximately $41,657,000 in cash and cash equivalents and short-term investments. Given the harsh economic conditions, we continue to review every aspect of our operations for cost and spending reductions to assure our long term survival while maintaining the resources necessary to achieve our primary objectives of obtaining NDA approval of Ampligen® and securing a strategic partner.

If we are unable to commercialize and sell Ampligen® and/or recommence and increase sales of Alferon N Injection® or our other products, we eventually may need to secure other sources of funding through additional equity or debt financing or other sources in order to satisfy our working capital needs and/or complete the necessary clinical trials and the regulatory approval processes including the commercializing of Ampligen® products.

Our ability to raise additional funds from the sale of equity securities is limited. In this regard, we only have approximately 29,000,000 shares authorized but unissued and unreserved.

There can be no assurances that we will raise adequate funds which may have a material adverse effect on our ability to develop our products or continue our operations.

Our Alferon N Injection® Commercial Sales have halted due to lack of finished goods inventory.

Our finished goods inventory of Alferon N Injection® reached it’s expiration date in March 2008. As a result, we have no product to sell at this time. The FDA declined to respond to our requests for an extension of the expiration date, therefore we consider the request to be denied. Testing of the product indicated that it is not impaired and could be safely utilized. Depending on the dose, the finished goods inventory of 2,745 Alferon N Injection® 5ml vials may be used to produce approximately 11,000,000 sachets of Alferon® Low Dose Oral (“LDO”) for future clinical trials.

Production of Alferon N Injection® from our Work-In-Progress ("WIP") Inventory had been put on hold due to the resources needed to prepare our New Brunswick facility for the FDA preapproval inspection with respect to our Ampligen® NDA. Project plans, timelines and budgets are being produced to ready facilities and expand staffing to produce Alferon® Purified Drug Concentrate ("PDC") to manufacture as either or both Alferon N Injection® and Alferon® LDO now that adequate funding was obtained in May, 2009. However, no assurance can be given that Alferon N Injection® made commercially available will return to prior sales levels.

Although preliminary in vitro testing indicates that Ampligen® enhances the effectiveness of different drug combinations on avian influenza, preliminary testing in the laboratory is not necessarily predictive of successful results in clinical testing or human treatment.

Ampligen® is currently being tested as a vaccine adjuvant for H5N1, a pathogenic avian influenza virus ("HPAIV") in Japan, where the preclinical data has shown activity in preventing lethal challenge with the original virus used for vaccination as well as the other related, but not identical, isolates of H5N1 virus (i.e., cross-reactivity). The clinical testing phase of Ampligen® in Japan is expected to begin in late 2009 or early 2010. The results of laboratory testing with seasonal influenza virus vaccine in Australia for the effect of Ampligen® as an adjuvant is pending. No assurance can be given that similar results will be observed in clinical trials. Use of Ampligen® in the treatment of flu requires prior regulatory approval. Only the FDA can determine whether a drug is safe, effective or promising for treating a specific application. As discussed above, obtaining regulatory approvals is a rigorous and lengthy process (see "Our drugs and related technologies are investigational and subject to regulatory approval. If we are unable to obtain regulatory approval, our operations will be significantly adversely affected" above).

We may not be profitable unless we can protect our patents and/or receive approval for additional pending patents.

We need to preserve and acquire enforceable patents covering the use of Ampligen® for a particular disease in order to obtain exclusive rights for the commercial sale of Ampligen® for such disease. We obtained all rights to Alferon N Injection®, and we plan to preserve and acquire enforceable patents covering its use for existing and potentially new diseases. Our success depends, in large part, on our ability to preserve and obtain patent protection for our products and to obtain and preserve our trade secrets and expertise. Certain of our know-how and technology is not patentable, particularly the procedures for the manufacture of our experimental drug, Ampligen®, which is carried out according to standard operating procedure manuals. We also have been issued patents on the use of Ampligen® in combination with certain other drugs for the treatment of chronic Hepatitis B virus, chronic Hepatitis C virus, and a patent which affords protection on the use of Ampligen® in patients with Chronic Fatigue Syndrome. We have not yet been issued any patents in the United States for the use of Ampligen® as a sole treatment for any of the cancers, which we have sought to target. With regard to Alferon N Injection®, we have acquired from ISI its patents for natural alpha interferon produced from human peripheral blood leukocytes and its production process and we have filed a patent application for the use of Alferon® LDO in treating viral diseases including avian influenza. We cannot assure that our competitors will not seek and obtain patents regarding the use of similar products in combination with various other agents, for a particular target indication prior to our doing such. If we cannot protect our patents covering the use of our products for a particular disease, or obtain additional patents, we may not be able to successfully market our products.

The patent position of biotechnology and pharmaceutical firms is highly uncertain and involves complex legal and factual questions.

To date, no consistent policy has emerged regarding the breadth of protection afforded by pharmaceutical and biotechnology patents. There can be no assurance that new patent applications relating to our products or technology will result in patents being issued or that, if issued, such patents will afford meaningful protection against competitors with similar technology. It is generally anticipated that there may be significant litigation in the industry regarding patent and intellectual property rights. Such litigation could require substantial resources from us and we may not have the financial resources necessary to enforce the patent rights that we hold. No assurance can be made that our patents will provide competitive advantages for our products or will not be successfully challenged by competitors. No assurance can be given that patents do not exist or could not be filed which would have a materially adverse effect on our ability to develop or market our products or to obtain or maintain any competitive position that we may achieve with respect to our products. Our patents also may not prevent others from developing competitive products using related technology.

There can be no assurance that we will be able to obtain necessary licenses if we cannot enforce patent rights we may hold. In addition, the failure of third parties from whom we currently license certain proprietary information or from whom we may be required to obtain such licenses in the future, to adequately enforce their rights to such proprietary information, could adversely affect the value of such licenses to us.

If we cannot enforce the patent rights we currently hold we may be required to obtain licenses from others to develop, manufacture or market our products. There can be no assurance that we would be able to obtain any such licenses on commercially reasonable terms, if at all. We currently license certain proprietary information from third parties, some of which may have been developed with government grants under circumstances where the government maintained certain rights with respect to the proprietary information developed. No assurances can be given that such third parties will adequately enforce any rights they may have or that the rights, if any, retained by the government will not adversely affect the value of our license.

There is no guarantee that our trade secrets will not be disclosed or known by our competitors.

To protect our rights, we require certain employees and consultants to enter into confidentiality agreements with us. There can be no assurance that these agreements will not be breached, that we would have adequate and enforceable remedies for any breach, or that any trade secrets of ours will not otherwise become known or be independently developed by competitors.

We have limited marketing and sales capability. If we are unable to obtain additional distributors and our current and future distributors do not market our products successfully, we may not generate significant revenues or become profitable.

We have limited marketing and sales capability. We are dependent upon existing and, possibly future, marketing agreements and third party distribution agreements for our products in order to generate significant revenues and become profitable. As a result, any revenues received by us will be dependent in large part on the efforts of third parties, and there is no assurance that these efforts will be successful.

Our commercialization strategy for Ampligen®-CFS may include licensing/co-marketing agreements utilizing the resources and capacities of a strategic partner(s). We are currently seeking worldwide marketing partner(s), with the goal of having a relationship in place before approval is obtained. In parallel to partnering discussions, appropriate pre-marketing activities will be undertaken. We intend to control manufacturing of Ampligen on a world-wide basis.

We cannot assure that our U.S. or foreign marketing strategy will be successful or that we will be able to establish future marketing or third party distribution agreements on terms acceptable to us, or that the cost of establishing these arrangements will not exceed any product revenues. Our inability to establish viable marketing and sales capabilities would most likely have a materially adverse effect on us.

There are no long-term agreements with suppliers of required materials. If we are unable to obtain the required raw materials, we may be required to scale back our operations or stop manufacturing Alferon N Injection® and/or Ampligen®.

A number of essential materials are used in the production of Alferon N Injection®, including human white blood cells. We do not have long-term agreements for the supply of any of such materials. There can be no assurance we can enter into long-term supply agreements covering essential materials on commercially reasonable terms, if at all.

There are a limited number of manufacturers in the United States available to provide the polymers for use in manufacturing Ampligen®. At present, we do not have any agreements with third parties for the supply of any of these polymers. We have established relevant manufacturing operations within our New Brunswick, New Jersey facility for the production of Ampligen® polymers from raw materials in order to obtain polymers on a more consistent manufacturing basis.

If we are unable to obtain or manufacture the required polymers, we may be required to scale back our operations or stop manufacturing. The costs and availability of products and materials we need for the production of Ampligen® and the commercial production of Alferon N Injection® and other products which we may commercially produce are subject to fluctuation depending on a variety of factors beyond our control, including competitive factors, changes in technology, and FDA and other governmental regulations and there can be no assurance that we will be able to obtain such products and materials on terms acceptable to us or at all.

There is no assurance that successful manufacture of a drug on a limited scale basis for investigational use will lead to a successful transition to commercial, large-scale production.

Small changes in methods of manufacturing, including commercial scale-up, may affect the chemical structure of Ampligen® and other RNA drugs, as well as their safety and efficacy, and can, among other things, require new clinical studies and affect orphan drug status, particularly, market exclusivity rights, if any, under the Orphan Drug Act. The transition from limited production of pre-clinical and clinical research quantities to production of commercial quantities of our products will involve distinct management and technical challenges and will require additional management and technical personnel and capital to the extent such manufacturing is not handled by third parties. There can be no assurance that our manufacturing will be successful or that any given product will be determined to be safe and effective, capable of being manufactured economically in commercial quantities or successfully marketed.

We have limited manufacturing experience.

Ampligen® has been produced to date only in limited quantities for use in our clinical trials and we are dependent upon a third party supplier for the manufacturing and bottling process. The failure to continue these arrangements or to achieve other such arrangements on satisfactory terms could have a material adverse affect on us. Also to be successful, our products must be manufactured in commercial quantities in compliance with regulatory requirements and at acceptable costs. To the extent we are involved in the production process, our current facilities are not adequate for the production of our proposed products for large-scale commercialization, and we currently do not have adequate personnel to conduct large-scale manufacturing. We intend to utilize third-party facilities if and when the need arises or, if we are unable to do so, to build or acquire commercial-scale manufacturing facilities. We will need to comply with regulatory requirements for such facilities, including those of the FDA pertaining to current Good Manufacturing Practices (“cGMP”) regulations. There can be no assurance that such facilities can be used, built, or acquired on commercially acceptable terms, or that such facilities, if used, built, or acquired, will be adequate for our long-term needs.

We may not be profitable unless we can produce Ampligen® or other products in commercial quantities at costs acceptable to us.

We have never produced Ampligen® or any other products in large commercial quantities. We must manufacture our products in compliance with regulatory requirements in large commercial quantities and at acceptable costs in order for us to be profitable. We intend to utilize third-party manufacturers and/or facilities if and when the need arises or, if we are unable to do so, to build or acquire commercial-scale manufacturing facilities. If we cannot manufacture commercial quantities of Ampligen® or enter into third party agreements for its manufacture at costs acceptable to us, our operations will be significantly affected. Also, each production lot of Alferon N Injection® is subject to FDA review and approval prior to releasing the lots to be sold. This review and approval process could take considerable time, which would delay our having product in inventory to sell.

Rapid technological change may render our products obsolete or non-competitive.

The pharmaceutical and biotechnology industries are subject to rapid and substantial technological change. Technological competition from pharmaceutical and biotechnology companies, universities, governmental entities and others diversifying into the field is intense and is expected to increase. Most of these entities have significantly greater research and development capabilities than us, as well as substantial marketing, financial and managerial resources, and represent significant competition for us. There can be no assurance that developments by others will not render our products or technologies obsolete or noncompetitive or that we will be able to keep pace with technological developments.

Our products may be subject to substantial competition.

Ampligen®. Competitors may be developing technologies that are, or in the future may be, the basis for competitive products. Some of these potential products may have an entirely different approach or means of accomplishing similar therapeutic effects to products being developed by us. These competing products may be more effective and less costly than our products. In addition, conventional drug therapy, surgery and other more familiar treatments may offer competition to our products. Furthermore, many of our competitors have significantly greater experience than us in pre-clinical testing and human clinical trials of pharmaceutical products and in obtaining FDA, HPB and other regulatory approvals of products. Accordingly, our competitors may succeed in obtaining FDA, HPB or other regulatory product approvals more rapidly than us. There are no drugs approved for commercial sale with respect to treating ME/CFS in the United States. The dominant competitors with drugs to treat disease indications in which we plan to address include Gilead Pharmaceutical, Pfizer, Bristol-Myers, Abbott Labs, GlaxoSmithKline, Merck and Schering-Plough Corp. These potential competitors are among the largest pharmaceutical companies in the world, are well known to the public and the medical community, and have substantially greater financial resources, product development, and manufacturing and marketing capabilities than we have. Although we believe our principal advantage is the unique mechanism of action of Ampligen® on the immune system, we cannot assure that we will be able to compete.

ALFERON N Injection®. Our competitors are among the largest pharmaceutical companies in the world, are well known to the public and the medical community, and have substantially greater financial resources, product development, and manufacturing and marketing capabilities than we have. Alferon N Injection® currently competes with Schering's injectable recombinant alpha interferon product (INTRON® A) for the treatment of genital warts. 3M Pharmaceuticals also offer competition from its immune-response modifier, Aldara®, a self-administered topical cream, for the treatment of external genital and perianal warts. In addition, Medigene has FDA approval for a self-administered ointment, VeregenTM, which is indicated for the topical treatment of external genital and perianal warts. Alferon N Injection® also competes with surgical, chemical, and other methods of treating genital warts. We cannot assess the impact products developed by our competitors, or advances in other methods of the treatment of genital warts, will have on the commercial viability of Alferon N Injection®. If and when we obtain additional approvals of uses of this product, we expect to compete primarily on the basis of product performance. Our competitors have developed or may develop products (containing either alpha or beta interferon or other therapeutic compounds) or other treatment modalities for those uses. There can be no assurance that, if we are able to obtain regulatory approval of Alferon N Injection® for the treatment of new indications, we will be able to achieve any significant penetration into those markets. In addition, because certain competitive products are not dependent on a source of human blood cells, such products may be able to be produced in greater volume and at a lower cost than Alferon N Injection®. Currently, our wholesale price on a per unit basis of Alferon N Injection® is higher than that of the competitive recombinant alpha and beta interferon products.

General. Other companies may succeed in developing products earlier than we do, obtaining approvals for such products from the FDA more rapidly than we do, or developing products that are more effective than those we may develop. While we will attempt to expand our technological capabilities in order to remain competitive, there can be no assurance that research and development by others or other medical advances will not render our technology or products obsolete or non-competitive or result in treatments or cures superior to any therapy we develop.

Possible side effects from the use of Ampligen® or Alferon N Injection® could adversely affect potential revenues and physician/patient acceptability of our product.

Ampligen®. We believe that Ampligen® has been generally well tolerated with a low incidence of clinical toxicity, particularly given the severely debilitating or life threatening diseases that have been treated. A mild flushing reaction has been observed in approximately 15-20% of patients treated in our various studies. This reaction is occasionally accompanied by a rapid heart beat, a tightness of the chest, urticaria (swelling of the skin), anxiety, shortness of breath, subjective reports of "feeling hot", sweating and nausea. The reaction is usually infusion-rate related and can generally be controlled by reducing the rate of infusion. Other adverse side effects include liver enzyme level elevations, diarrhea, itching, asthma, low blood pressure, photophobia, rash, transient visual disturbances, slow or irregular heart rate, decreases in platelets and white blood cell counts, anemia, dizziness, confusion, elevation of kidney function tests, occasional temporary hair loss and various flu-like symptoms, including fever, chills, fatigue, muscular aches, joint pains, headaches, nausea and vomiting. These flu-like side effects typically subside within several months. One or more of the potential side effects might deter usage of Ampligen® in certain clinical situations and therefore, could adversely affect potential revenues and physician/patient acceptability of our product.

Alferon N Injection®. At present, Alferon N Injection® is only approved for the intra-lesional (within the lesion) treatment of refractory or recurring external genital warts in adults. In clinical trials conducted for the treatment of genital warts with Alferon N Injection®, patients did not experience serious side effects; however, there can be no assurance that unexpected or unacceptable side effects will not be found in the future for this use or other potential uses of Alferon N Injection® which could threaten or limit such product’s usefulness.

We may be subject to product liability claims from the use of Ampligen®, Alferon N Injection®, or other of our products which could negatively affect our future operations. We have discontinued product liability insurance.

We face an inherent business risk of exposure to product liability claims in the event that the use of Ampligen® or other of our products results in adverse effects. This liability might result from claims made directly by patients, hospitals, clinics or other consumers, or by pharmaceutical companies or others manufacturing these products on our behalf. Our future operations may be negatively affected from the litigation costs, settlement expenses and lost product sales inherent to these claims. While we will continue to attempt to take appropriate precautions, we cannot assure that we will avoid significant product liability exposure.

On November 28, 2008, we suspended product liability insurance for Alferon N Injection® and Ampligen® until we receive regulatory clearance for Ampligen®. We now require third parties to indemnify us in conjunction with all overseas emergency sales of Ampligen® and Alferon® LDO. We concluded that years of successfully addressing the limited number of product liability claims filed against Ampligen® and Alferon® LDO, combined with the mandatory patient waivers completed as an element of clinical trials and lack of any commercial sales since April 2008, that temporarily discontinuing the liability insurance was an acceptable risk until we receive regulatory clearance for Ampligen® or Alferon N Injection® and Alferon® LDO become available.

Currently, without product liability coverage for Ampligen®, Alferon N Injection® and Alferon® LDO, a claim against the products could have a materially adverse effect on our business and financial condition.

The loss of services of key personnel including Dr. William A. Carter could hurt our chances for success.

Our success is dependent on the continued efforts of our staff, especially certain doctors and researchers along with the continued efforts of Dr. William A. Carter because of his position as a pioneer in the field of nucleic acid drugs, his being the co-inventor of Ampligen®, and his knowledge of our overall activities, including patents and clinical trials. The loss of the services of personnel key to our operations or Dr. Carter could have a material adverse effect on our operations and chances for success. As a cash conservation measure, we have elected to discontinue the Key Man life insurance in the amount of $2,000,000 on the life of Dr. Carter until we receive regulatory clearance for Ampligen®. An employment agreement continues to exist with Dr. Carter that, as amended, runs until December 31, 2010. However, Dr. Carter has the right to terminate his employment upon not less than 30 days prior written notice. The loss of Dr. Carter or other personnel or the failure to recruit additional personnel as needed could have a materially adverse effect on our ability to achieve our objectives.

Uncertainty of health care reimbursement for our products.

Our ability to successfully commercialize our products will depend, in part, on the extent to which reimbursement for the cost of such products and related treatment will be available from government health administration authorities, private health coverage insurers and other organizations. Significant uncertainty exists as to the reimbursement status of newly approved health care products, and from time to time legislation is proposed, which, if adopted, could further restrict the prices charged by and/or amounts reimbursable to manufacturers of pharmaceutical products. We cannot predict what, if any, legislation will ultimately be adopted or the impact of such legislation on us. There can be no assurance that third party insurance companies will allow us to charge and receive payments for products sufficient to realize an appropriate return on our investment in product development.

There are risks of liabilities associated with handling and disposing of hazardous materials.

Our business involves the controlled use of hazardous materials, carcinogenic chemicals, flammable solvents and various radioactive compounds. Although we believe that our safety procedures for handling and disposing of such materials comply in all material respects with the standards prescribed by applicable regulations, the risk of accidental contamination or injury from these materials cannot be completely eliminated. In the event of such an accident or the failure to comply with applicable regulations, we could be held liable for any damages that result, and any such liability could be significant. We do not maintain insurance coverage against such liabilities.

Risks Associated With an Investment in Our Common Stock

The market price of our stock may be adversely affected by market volatility.

The market price of our common stock has been and is likely to be volatile. This is especially true given the current significant instability in the financial markets. In addition to general economic, political and market conditions, the price and trading volume of our stock could fluctuate widely in response to many factors, including:

- announcements of the results of clinical trials by us or our competitors;
- adverse reactions to products;
- governmental approvals, delays in expected governmental approvals or withdrawals of any prior governmental approvals or public or regulatory agency concerns regarding the safety or effectiveness of our products;
- changes in U.S. or foreign regulatory policy during the period of product development;
- developments in patent or other proprietary rights, including any third party challenges of our intellectual property rights;
- announcements of technological innovations by us or our competitors;
- announcements of new products or new contracts by us or our competitors;
- actual or anticipated variations in our operating results due to the level of development expenses and other factors;
- changes in financial estimates by securities analysts and whether our earnings meet or exceed the estimates;
- conditions and trends in the pharmaceutical and other industries;
- new accounting standards;

- overall investment market fluctuation; and
- occurrence of any of the risks described in these "Risk Factors."

Our common stock is listed for quotation on the NYSE Amex. For the 12-month period ended June 30, 2009, the closing price of our common stock has ranged from $0.25 to $4.54 per share. We expect the price of our common stock to remain volatile. The average daily trading volume of our common stock varies significantly.

In the past, following periods of volatility in the market price of the securities of companies in our industry, securities class action litigation has often been instituted against companies in our industry. If we face securities litigation in the future, even if without merit or unsuccessful, it would result in substantial costs and a diversion of management attention and resources, which would negatively impact our business.

Our stock price may be adversely affected if a significant amount of shares are sold in the public market.

In connection with entering into the Purchase Agreement with Fusion Capital Fund II, LLC (“Fusion Capital”) in August 2008, we registered 21,300,000 shares in the aggregate, consisting of 20,000,000 shares which we may sell to Fusion Capital and 1,300,000 shares we have issued or may issue to Fusion Capital as a commitment fee. As of June 30, 2009, we have sold an aggregate of 9,396,220 shares to Fusion Capital under the Purchase Agreement for gross proceeds of approximately $6,660,000, leaving 11,903,780 shares. The number of shares ultimately offered for sale by Fusion Capital is dependent upon the number of shares purchased by Fusion Capital under the agreement. The purchase price for the common stock to be sold to Fusion Capital pursuant to the Purchase Agreement will fluctuate based on the price of our common stock. It is anticipated that shares registered could be sold over a period of up to 13 months after the date hereof. Depending upon market conditions at the time, a sale of shares by Fusion Capital at any given time could cause the trading price of our common stock to decline. Fusion Capital may ultimately purchase all, some or none of the remaining 11,903,780 shares available but not yet issued. After it has acquired such shares, it may sell all, some or none of such shares. Therefore, sales to Fusion Capital by us under the Purchase Agreement may result in substantial dilution to the interests of other holders of our common stock. The sale of a substantial number of shares of our common stock by Fusion Capital, or anticipation of such sales, could make it more difficult for us to sell equity or equity-related securities in the future at a time and at a price that we might otherwise wish to effect sales. However, we have the right to control the timing and amount of any sales of our shares to Fusion Capital and the agreement may be terminated by us at any time at our discretion without any cost to us.

In May 2009 we issued an aggregate of 25,543,339 shares and warrants to purchase an additional 14,708,687 shares under a prior universal shelf registration statement. We anticipate selling 9,813,687 shares pursuant to the conversion of remaining warrants.

In addition to the foregoing, we also previously registered 135% of 518,768 shares issuable upon exercise of warrants related to our former convertible debentures and 1,038,527 shares issuable upon exercise of certain other warrants. To the extent the exercise price of our outstanding warrants is less than the market price of the common stock, the holders of the warrants are likely to exercise them and sell the underlying shares of common stock and to the extent that the exercise price of certain of these warrants are adjusted pursuant to anti-dilution protection, the warrants could be exercisable or convertible for even more shares of common stock. We also may issue shares pursuant to this prospectus or otherwise to be used to meet our capital requirements or use shares to compensate employees, consultants and/or directors. In this regard we have registered $150,000,000 of securities for public sale pursuant to a universal shelf registration, none of which has been designated or issued. We are unable to estimate the amount, timing or nature of future sales of outstanding common stock or instruments convertible into or exercisable for our common stock.

Sales of substantial amounts of our common stock in the public market, including our sale of securities pursuant to the Purchase Agreement with Fusion Capital or the universal shelf registration statement, could cause the market price for our common stock to decrease. Furthermore, a decline in the price of our common stock would likely impede our ability to raise capital through the issuance of additional shares of common stock or other equity securities.

Provisions of our Certificate of Incorporation and Delaware law could defer a change of our management which could discourage or delay offers to acquire us.

Provisions of our Certificate of Incorporation and Delaware law may make it more difficult for someone to acquire control of us or for our stockholders to remove existing management, and might discourage a third party from offering to acquire us, even if a change in control or in management would be beneficial to our stockholders. For example, our Certificate of Incorporation allows us to issue shares of preferred stock without any vote or further action by our stockholders. Our Board of Directors has the authority to fix and determine the relative rights and preferences of preferred stock. Our Board of Directors also has the authority to issue preferred stock without further stockholder approval. As a result, our Board of Directors could authorize the issuance of a series of preferred stock that would grant to holders the preferred right to our assets upon liquidation, the right to receive dividend payments before dividends are distributed to the holders of common stock and the right to the redemption of the shares, together with a premium, prior to the redemption of our common stock. In this regard, in November 2002, we adopted a stockholder rights plan and, under the Plan, our Board of Directors declared a dividend distribution of one Right for each outstanding share of Common Stock to stockholders of record at the close of business on November 29, 2002. Each Right initially entitles holders to buy one unit of preferred stock for $30.00. The Rights generally are not transferable apart from the common stock and will not be exercisable unless and until a person or group acquires or commences a tender or exchange offer to acquire, beneficial ownership of 15% or more of our common stock. However, for Dr. Carter, our Chief Executive Officer, who already beneficially owns 5.62% of our common stock, the Plan’s threshold will be 20%, instead of 15%. The Rights will expire on November 19, 2012, and may be redeemed prior thereto at $.01 per Right under certain circumstances.

Because the risk factors referred to above 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. In addition, 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. Our research in clinical efforts may continue for the next several years and we may continue to incur losses due to clinical costs incurred in the development of Ampligen® for commercial application. Possible losses may fluctuate from quarter to quarter as a result of differences in the timing of significant expenses incurred and receipt of licensing fees and/or cost recovery treatment revenue.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

Certain statements in this prospectus constitute “forwarding-looking statements” within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities and Exchange Act of 1995 (collectively, the “Reform Act”). Certain, but not necessarily all, of such forward-looking statements can be identified by the use of forward-looking terminology such as “believes,” “expects,” “may,” “will,” “should,” or “anticipates” or the negative thereof or other variations thereon or comparable terminology, or by discussions of strategy that involve risks and uncertainties. All statements other than statements of historical fact, included in this prospectus regarding our financial position, business strategy and plans or objectives for future operations are forward-looking statements. Without limiting the broader description of forward-looking statements above, we specifically note that statements regarding potential drugs, their potential therapeutic effect, the possibility of obtaining regulatory approval, our ability to manufacture and sell any products, market acceptance or our ability to earn a profit from sales or licenses of any drugs or our ability to discover new drugs in the future are all forward-looking in nature.

Such forward-looking statements involve known and unknown risks, uncertainties and other factors, including but not limited to, the risk factors discussed above, which may cause the actual results, performance or achievements of Hemispherx and its subsidiaries to be materially different from any future results, performance or achievements expressed or implied by such forward-looking statements and other factors referenced in this prospectus. We do not undertake and specifically decline any obligation to publicly release the results of any revisions which may be made to any forward-looking statement to reflect events or circumstances after the date of such statements or to reflect the occurrence of anticipated or unanticipated events.

BUSINESS

Our Annual Report on Form 10-K for the fiscal year ended December 31, 2008, incorporated by reference into this Prospectus, contains information about us, including audited financial statements for our fiscal year ended December 31, 2008. Please refer to this report and all of our subsequent reports filed with the SEC for additional information.

SELLING STOCKHOLDERS

This reoffer prospectus relates to shares that are being registered for reoffers and resales by the selling stockholders who have received or may receive shares pursuant to the Plans or upon exercise of options or warrants issued under the Plans. The selling stockholders may resell any or all of the shares offered from time to time while this reoffer prospectus is effective.

The following table sets forth (a) the name of each selling stockholder; (b) the number of shares of common stock of Hemispherx beneficially owned by each selling stockholder as of September 25, 2009; (c) the maximum number of shares of common stock of Hemispherx that each selling stockholder may offer for sale from time to time pursuant to this reoffer prospectus, whether or not the selling stockholder has any present intention to do so and whether or not such shares have previously been issued to the selling stockholder or may in the future be issued, if at all; and (d) the number of shares of common stock of Hemispherx and the percentage of common stock of Hemispherx that would be beneficially owned by each selling stockholder assuming the sale of all shares offered hereby. All information with respect to beneficial ownership has been furnished by the selling stockholders. The inclusion in the table below of the individuals named therein shall not be deemed to be an admission that any such individuals are our “affiliates” as that term is defined under Rule 405 under the Securities Act.

Information concerning the identities of the selling stockholders, the number of shares that may be sold by each selling stockholder and information about the shares beneficially owned by the selling stockholders may from time to time be updated in supplements to this reoffer prospectus, which will be filed with the SEC in accordance with Rule 424(b) of the Securities Act if and when necessary. Information on the shares offered pursuant to this reoffer prospectus, as listed below, do not necessarily indicate that the selling stockholder presently intends to sell any or all of the shares so listed. Because the selling stockholders may sell none, some or all of the shares owned by them which are included in this reoffer prospectus, no estimate can be given as to the number of shares available for resale hereby that will be held by the selling stockholders upon the termination of the offering made hereby. We have therefore assumed, for purposes of the following table, that the selling stockholders will sell all of the shares owned by them that are being offered hereby, but will not sell any other shares of our common stock that they presently own.

Selling Stockholder	Common Stock Owned Prior To Offering	Maximum No. of Shares Being Offered	Common Stock Owned After The Offering	Percentage of Shares Owned After Offering
William A. Carter (1) (8)	7,533,216	7,075,256	457,960	*
Richard C. Piani (2)	757,420	657,620	99,800	*
Charles T. Bernhardt (3)	263,214	198,135	65,079	*
Thomas K. Equels (4)	1,496,640	670,033	826,607	*
William M. Mitchell (5)	616,025	598,385	17,640	*
Iraj Eqhbal Kiani (6)	323,271	323,271	0	*
Katalin Kovari (7) (8)	2,144	2,144	0	*
David Strayer (9)	459,832	420,586	39,246	*
Wayne Springate (10)	234,648	234,648	0	*
Robert Dickey (11)	150,000	150,000	0	*

* Ownership of less than 1%

(1) Dr. Carter is our Chairman and Chief Executive Officer. Common Stock owned Prior to the Offering and Common Stock being Offered include 7,075,256 shares issuable or issued upon exercise of:

Plan	Date Issued	Exercise Price	Number Of Shares	Expiration Date
Options				
1990	08/08/91	$ 2.71	73,728	12/31/10
1990	12/03/01	$ 4.03	10,000	01/03/11
2004	09/08/04	$ 2.60	167,000	09/07/14
2004	12/07/04	$ 2.60	153,000	12/07/14
2004	04/26/05	$ 1.75	100,000	04/26/15
2004	07/01/05	$ 1.86	465,000	06/30/15
2004	12/09/05	$ 2.61	10,000	12/08/15
2004	12/09/05	$ 2.87	70,000	12/09/15
2004	01/01/06	$ 2.38	300,000	01/01/16
2004	02/22/06	$ 3.78	376,650	02/22/16
2004	09/10/07	$ 2.00	1,000,000	09/09/17
2004	10/01/07	$ 3.50	1,400,000	09/30/17
2004	02/18/08	$ 4.00	190,000	02/18/18
2007	09/17/08	$ 2.20	1,450,000	09/17/18
Total Options			5,765,378	
Warrants				
Total Warrants	2009	02/1/09 $ 0.51	491,196	02/01/19

Incentive Rights

Plan	Date Issued	Number Of Shares
2007	01/31/09	206,646
2007	02/28/09	199,263
2007	03/31/09	192,870
2007	04/30/09	154,527
2007	05/31/09	65,376
Total Incentive Rights		818,682

(2) Mr. Piani is a member of our Board of Directors. Common Stock owned Prior to the Offering and Common Stock being Offered include 333,012 shares issued for Board fees and 324,608 shares issuable upon exercise of:

Plan	Date Issued	Exercise Price	Number Of Shares	Expiration Date
Options				
2004	09/08/04	$ 2.60	54,608	09/07/14
2004	04/26/05	$ 1.75	100,000	04/26/15
2004	02/24/06	$ 3.86	50,000	02/24/16
2004	09/10/07	$ 2.00	100,000	09/09/17
2004	02/18/08	$ 4.00	20,000	02/18/18
Total Options			324,608	

(3) Mr. Bernhardt is our Chief Financial Officer. Common Stock owned Prior to the Offering and Common Stock being Offered include 198,135 shares issuable upon exercise of:

Plan	Date Issued	Number Of Shares
Incentive Rights		
2007	01/31/09	49,569
2007	02/28/09	45,642
2007	03/31/09	47,118
2007	04/30/09	37,791
2007	05/31/09	18,015
Total Incentive Rights		198,135

(4) Mr. Equels is a member of our Board of Directors and our Co-General Counsel. Common Stock owned Prior to the Offering and Common Stock being Offered include 178,837 shares issued for Board fees and 491,196 shares issuable upon exercise of:

Plan	Date Issued	Exercise Price	Number Of Shares	Expiration Date
Warrants				
Total Warrants	2009	02/1/09 $ 0.51	491,196	02/01/19

(5) Dr. Mitchell is a member of our Board of Directors. Common Stock owned Prior to the Offering and Common Stock being Offered include 286,385 shares issued for Board fees and 312,000 shares issuable upon exercise of:

Plan	Date Issued	Exercise Price	Number Of Shares	Expiration Date
Options				
2004	09/08/04	$ 2.60	50,000	09/07/14
2004	04/26/05	$ 1.75	100,000	04/26/15
2004	02/24/06	$ 3.86	50,000	02/24/16
2004	09/10/07	$ 2.00	100,000	09/09/17
2004	09/17/08	$ 6.00	12,000	09/17/18
Total Options			312,000	

(6) Dr. Kiani is a member of our Board of Directors. Common Stock owned Prior to the Offering and Common Stock being Offered include 246,271 shares issued for Board fees and 77,000 shares issuable upon exercise of:

Plan	Date Issued	Exercise Price	Number Of Shares	Expiration Date
Options				
2004	04/26/05	$ 1.75	15,000	04/26/15
2004	06/02/05	$ 1.63	12,000	06/30/15
2004	02/24/06	$ 3.86	50,000	02/24/16
Total Options			77,000	

(7) Ms. Kovari is the spouse of Dr. Carter. Common Stock owned Prior to the Offering and Common Stock being Offered include 2,144 shares issuable upon exercise of:

Plan	Date Issued	Number Of Shares
Incentive Rights		
2007	01/31/09	536
2007	02/28/09	494
2007	03/31/09	510
2007	04/30/09	408
2007	05/31/09	196
Total Incentive Rights		2,144

(8) For the sake of clarity, the shares listed in the table for each of William Carter and Katalin Kovari do not include the shares owned by the other. William Carter and Katalin Kovari are married and, accordingly, all shares owned by each are deemed to be beneficially owned by the other.

(9) Dr. Strayer is our Medical Director. Common Stock owned Prior to the Offering and Common Stock being Offered include 420,586 shares issuable upon exercise of:

	Plan	Date Issued		Exercise Price	Number Of Shares	Expiration Date
Options						
	1990	12/03/01	$	4.03	10,000	01/03/11
	2004	12/07/04	$	1.90	10,000	12/07/14
	2004	12/09/05	$	2.61	10,000	12/08/15
	2004	11/20/06	$	2.20	15,000	11/20/16
	2004	01/23/07	$	2.37	20,000	01/23/17
	2004	09/10/07	$	2.00	50,000	09/09/17
	2004	12/06/07	$	1.30	25,000	12/06/17
	2004	02/18/08	$	4.00	50,000	09/18/18
Total Options					190,000	
Incentive Rights						
	2007	01/31/09			58,089	
	2007	02/28/09			54,453	
	2007	03/31/09			54,015	
	2007	04/30/09			43,962	
	2007	05/31/09			20,067	
Total Incentive Rights					230,586	

(10) Mr. Springate is our Vice President of Operations. Common Stock owned Prior to the Offering and Common Stock being Offered include 234,648 shares issuable upon exercise of:

	Plan	Date Issued		Exercise Price	Number Of Shares	Expiration Date
Options						
	2004	12/07/04	$	1.90	1,812	12/07/14
	2004	12/09/05	$	2.61	2,088	12/08/15
	2004	11/20/06	$	2.20	5,000	11/20/16
	2004	05/01/07	$	1.78	20,000	09/09/17
	2004	12/06/07	$	1.30	20,000	12/06/17
Total Options					48,900	
Incentive Rights						
	2007	01/31/09			46,473	
	2007	02/28/09			42,789	
	2007	03/31/09			44,172	
	2007	04/30/09			35,427	
	2007	05/31/09			16,887	
Total Incentive Rights					185,748	

(11) Mr. Dickey is our Senior Vice President. Common Stock owned Prior to the Offering and Common Stock being Offered include 150,000 shares issuable upon exercise of:

	Plan	Date Issued	Exercise Price	Number Of Shares	Expiration Date
Options					
Total Options	2009	07/01/09	$ 2.81	150,000	07/01/19

PLAN OF DISTRIBUTION

Shares covered by this reoffer prospectus will be sold by the selling stockholders as principals for their own account. We will not receive any proceeds from sales of any shares by the selling stockholders. We will, however, receive the exercise price of any options or warrants that are exercised.

The selling stockholders may sell shares pursuant to this reoffer prospectus from time to time in transactions on or through the NYSE Amex, in privately negotiated transactions or in a combination of such transactions.

Each sale may be made either at the market price prevailing at the time of sale or at a negotiated price. Sales may be made through brokers or to dealers, and such brokers or dealers may receive compensation in the form of commissions or discounts not exceeding those customary in similar transactions. All selling and other expenses incurred by individual selling stockholders will be borne by those selling stockholders.

Any shares covered by this reoffer prospectus that qualify for sale pursuant to Rule 144 under the Securities Act may be sold under Rule 144 rather than pursuant to this reoffer prospectus.

The selling stockholders and any dealer acting in connection with the offering or any broker executing a sell order on behalf of a selling stockholder may be deemed to be “underwriters” within the meaning of the Securities Act, in which event any profit on the sale of shares by a selling stockholder and any commissions or discounts received by any such broker or dealer may be deemed to be underwriting compensation under the Securities Act. In addition, any such broker or dealer may be required to deliver a copy of this reoffer prospectus to any person who purchases any of the shares from or through such broker or dealer.

USE OF PROCEEDS

We will not receive any proceeds from the sale of the shares of common stock offered by the selling stockholders. We will receive proceeds from the exercising of the Options or Warrants, if any. We will apply such proceeds, if any, for working capital and general corporate purposes.

SEC POSITION ON INDEMNIFICATION FOR SECURITIES ACT LIABILITIES

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers or persons controlling the company pursuant to the foregoing provisions, we have been informed that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act and is therefore unenforceable.

LEGAL MATTERS

The validity of the common stock offered in this prospectus has been passed upon for us by Silverman Sclar Shin & Byrne PLLC, 381 Park Avenue South, Suite 1601, New York, New York 10016.

EXPERTS

The financial statements, the related financial statement schedule, and the effectiveness of internal control over financial reporting incorporated by reference in this Prospectus and Registration Statement have been audited by McGladrey & Pullen, LLP, an independent registered public accounting firm, as stated in their report incorporated herein by reference, and are incorporated in reliance upon such report and upon the authority of such firm as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

This prospectus is part of a registration statement on Form S-8 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.

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:

(a) Our annual report on Form 10-K for our fiscal year ended December 31, 2008, SEC File No. 1-13441.

(b) Our quarterly report on Form 10-Q for the periods ended June 30, 2009 and March 31, 2009, SEC File No. 1-13441.

(c) Our current reports on Form 8-K, SEC File No. 1-13441 filed with the SEC on July 22, 2009, June 24, 2009, June 17, 2009, May 27, 2009, May 26, 2009, May 19, 2009 and February 19, 2009.

(d) Our proxy statement on schedule 14A for our 2009 annual meeting, SEC File No. 1-13441.

You may request a copy of these filings, at no cost, by writing or telephoning us at the following address: Hemispherx Biopharma, Inc., 1617 JFK Boulevard, Philadelphia, Pennsylvania 19103, telephone number 215-988-0080.

You should rely only on the information incorporated by reference or provided in this prospectus or any supplement. We have not authorized anyone else to provide you with different information. We will not make offers to sell these shares in any state where the offer is not permitted. You should not assume that the information in this prospectus or any supplement is accurate as of any date other that the date on the front of those documents.

PART I
INFORMATION REQUIRED IN THE
SECTION 10(A) PROSPECTUS

Item 1. Plan Information.

The information required by Part I is included in the documents sent or given to participants in the Hemispherx Biopharma, Inc. 2009 Equity Incentive Plan, pursuant to Rule 428(b)(1) under the Securities Act of 1933, as amended (the "Securities Act"). Such documents are not required to be and are not filed with the Securities and Exchange Commission (the "Commission") either as part of this Registration Statement or as prospectuses or prospectus supplements pursuant to Rule 424. These documents and the documents incorporated by reference in this Registration Statement pursuant to Item 3 of Part II of this Form S-8, taken together, constitute a prospectus that meets the requirements of Section 10(a) of the Securities Act.

Item 2. Registrant Information and Employee Plan Annual Information.

Upon written or oral request, any of the documents incorporated by reference in Item 3 of Part II of this Registration Statement (which documents are incorporated by reference in this Section 10(a) Prospectus), other documents required to be delivered to eligible employees pursuant to Rule 428(b) or additional information about the Hemispherx Biopharma, Inc. 2009 Equity Incentive Plan are available without charge by contacting: Corporate Secretary, Hemispherx Biopharma, Inc., 1617 JFK Boulevard, Philadelphia, Pennsylvania 19103, Phone: (215) 988-0080.

PART II
INFORMATION REQUIRED IN THE
REGISTRATION STATEMENT

Item 3. Incorporation of Documents by Reference.

The Registrant is subject to the informational and reporting requirements of Sections 13(a), 14 and 15(d) of the Securities and Exchange Act of 1934, as amended (the "Exchange Act"), and in accordance therewith files reports, proxy statements and other information with the Commission. The following documents, which are on file with the Commission (SEC File No. 1-13441), are incorporated in this Registration Statement by reference:

(e) Our annual report on Form 10-K for our fiscal year ended December 31, 2008.

(f) Our quarterly reports on Form 10-Q for the quarters ended June 30, 2009 and March 31, 2009.

(g) Our current reports on Form 8-K, SEC File No. 1-13441 filed with the SEC on July 22, 2009, June 24, 2009, June 17, 2009, May 27, 2009, May 26, 2009, May 19, 2009 and February 19, 2009.

(h) The Notice of Annual Meeting and definitive Proxy Statement filed with the Commission on May 22, 2009 in connection with our 2009 Annual Meeting;

(i) 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 filed subsequent to the date of this prospectus and prior to the termination of this offering.

All documents subsequently filed by the Registrant pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act after the date of this Registration Statement, and prior to the filing of a post-effective amendment which indicates that all securities offered hereby have been sold or which de-registers all securities then remaining unsold, shall be deemed to be incorporated by reference in this Registration Statement and to be a part hereof from the date of filing of such documents. Any statement contained in a document incorporated or deemed to be incorporated by reference herein shall be deemed to be modified or superseded for purposes of this Registration Statement to the extent that a statement contained herein or in any other subsequently filed document which also is or is deemed to be incorporated by reference herein modifies or supersedes such statement. Any statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this Registration Statement.

Item 4. Description of Securities.

Not applicable.

Item 5. Interests of Named Experts and Counsel.

Not applicable.

Item 6. Indemnification of Directors and Officers.

The Registrant’s Amended and Restated Certificate of Incorporation provides that the Registrant shall indemnify to the extent permitted by Delaware law any person whom it may indemnify thereunder, including directors, officers, employees and agents of the Registrant. Such indemnification (other than an order by a court) shall be made by the Registrant only upon a determination that indemnification is proper in the circumstances because the individual met the applicable standard of conduct. Advances for such indemnification may be made pending such determination. In addition, the Registrant's Amended and Restated Certificate of Incorporation eliminates, to the extent permitted by Delaware law, personal liability of directors to the Registrant and its stockholders for monetary damages for breach of fiduciary duty as directors.

The Registrant's authority to indemnify its directors and officers is governed by the provisions of Section 145 of the Delaware General Corporation Law, as follows:

(a) A corporation shall have the power to indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (other than action by or in the right of the corporation) by reason of the fact that he is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by the person in connection with such action, suit or proceeding if he acted in good faith and in a manner he reasonably believed to be in or not opposed to the best interests of the corporation, and, with respect to any criminal action or proceeding, had no reasonable cause to believe his conduct was unlawful. The termination of any action, suit or proceeding by judgment, order, settlement, conviction, or upon a plea of nolo contendere or its equivalent, shall not, of itself, create a presumption that the person did not act in good faith and in a manner which he reasonably believed to be in or not opposed to the best interests of the corporation, and, with respect to any criminal action or proceeding, had reasonable cause to believe that the person's conduct was unlawful.

(b) A corporation shall have the power to indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action or suit by or in the right of the corporation to procure a judgment in its favor by reason of the fact that he is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise against expenses (including attorneys' fees) actually and reasonably incurred by the person in connection with the defense or settlement of such action or suit if he acted in good faith and in a manner he reasonably believed to be in or not opposed to the best interests of the corporation and except that no indemnification shall be made in respect of any claim, issue or matter as to which such person shall have been adjudged to be liable to the corporation unless and only to the extent that the Court of Chancery or the court in which such action or suit was brought shall determine upon application that, despite the adjudication of liability but in view of all the circumstances of the case, such person is fairly and reasonably entitled to indemnity for such expenses which the Court of Chancery or such other court shall deem proper.

(c) To the extent that a present or former director or officer of a corporation has been successful on the merits or otherwise in defense of any action, suit or proceeding referred to in subsections (a) and (b) of this section, or in defense of any claim, issue or matter therein, such person shall be indemnified against expenses (including attorneys' fees) actually and reasonably incurred by such person in connection therewith.

(d) Any indemnification under subsections (a) and (b) of this section (unless ordered by a court) shall be made by the corporation only as authorized in the specific case upon a determination that indemnification of the present or former director, officer, employee or agent is proper in the circumstances because he has met the applicable standard of conduct set forth in subsections (a) and (b) of this section. Such determination shall be made, with respect to a person who is a director or officer at the time of such determination (1) by a majority vote of the directors who are not parties to such action, suit or proceeding, even though less than a quorum, or (2) by a committee of such directors designated by majority vote of such directors, even though less than a quorum, or (3) if there are no such directors, or if such directors so direct, by independent legal counsel in a written opinion, or (4) by the stockholders.

(e) Expenses (including attorneys' fees) incurred by an officer or director in defending any civil, criminal, administrative or investigative action, suit or proceeding may be paid by the corporation in advance of the final disposition of such action, suit or proceeding upon receipt of an undertaking by or on behalf of such director or officer to repay such amount if it shall ultimately be determined that such person is not entitled to be indemnified by the corporation as authorized in this section. Such expenses (including attorneys' fees) incurred by former directors and officers or other employees and agents may be so paid upon such terms and conditions, if any, as the corporation deems appropriate.

(f) The indemnification and advancement of expenses provided by, or granted pursuant to, the other subsections of this section shall not be deemed exclusive of any other rights to which those seeking indemnification or advancement of expenses may be entitled under any by law, agreement, vote of stockholders or disinterested directors or otherwise, both as to action in such person's official capacity and as to action in another capacity while holding such office.

(g) A corporation shall have power to purchase and maintain insurance on behalf of any person who is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise against any liability asserted against such person and incurred by such person in any such capacity, or arising out of his status as such, whether or not the corporation would have the power to indemnify such person against such liability under this section.

(h) For purposes of this section, references to the "corporation" shall include, in addition to the resulting corporation, any constituent corporation (including any constituent of a constituent) absorbed in a consolidation or merger which, if its separate existence had continued, would have had the power and authority to indemnify its directors, officers, and employees or agents, so that any person who is or was a director, officer, employee or agent of such constituent corporation, or is or was serving at the request of such constituent corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, shall stand in the same position under this section with respect to the resulting or surviving corporation as such person would have with respect to such constituent corporation if its separate existence had continued.

(i) For purposes of this section, references to "other enterprises" shall include employee benefit plans, references to "fines" shall include any excise taxes assessed on a person with respect to any employee benefit plan, and references to "serving at the request of the corporation" shall include any service as a director, officer, employee or agent of the corporation which imposes duties on, or involves services by, such director, officer, employee or agent with respect to any employee benefit plan, its participants or beneficiaries, and a person who acted in good faith and in a manner such person reasonably believed to be in the interest of the participants and beneficiaries of an employee benefit plan shall be deemed to have acted in a manner "not opposed to the best interests of the corporation" as referred to in this section.

(j) The indemnification and advancement of expenses provided by, or granted pursuant to, this section shall, unless otherwise provided when authorized or ratified, continue as to a person who has ceased to be a director, officer, employee or agent and shall inure to the benefit of the heirs, executors and administrators of such a person.

(k) The Court of Chancery is hereby vested with exclusive jurisdiction to hear and determine all actions for advancement of expenses or indemnification brought under this section or under any bylaw, agreement, vote of stockholders or disinterested directors, or otherwise. The Court of Chancery may summarily determine a corporation's obligation to advance expenses (including attorneys' fees).

Item 7. Exemption From Registration Claimed.

Not applicable.

Item 8. Exhibits.

Exhibit No.	Description
4.2	Hemispherx Biopharma, Inc. 2009 Equity Incentive Plan (1).
5.1	Opinion of Silverman Sclar Shin & Byrne PLLC, legal counsel (previously filed).
23.1	Consent of McGladrey & Pullen, LLP.
23.3	Consent of Silverman Sclar Shin & Byrne PLLC, legal counsel (included in Exhibit 5.1).
24.1	Powers of Attorney (included in Signature Pages to the Registration Statement on Form S-8).

(1) Previously filed as Appendix B to the Company's Definitive Proxy Statement on Schedule 14A (SEC File No. 1-13441) filed with the Commission on or about May 22, 2009, and incorporated herein by this reference.

Item 9. Undertakings.

(a) The undersigned registrant hereby undertakes:

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

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

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

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the Registration Statement or any material change to such information in the Registration Statement; provided, however, that paragraphs (a)(1)(i) and (a)(1)(ii) do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in periodic reports filed with or furnished to the Commission by the registrant pursuant to Section 13 or 15(d) of the Exchange Act of 1934 that are incorporated by reference in the Registration Statement.

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

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

(b) The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act of 1933, each filing of the registrant's annual report pursuant to section 13(a) or section 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in the Registration Statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

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

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Registrant, Hemispherx Biopharma, Inc., certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this Post-Effective Amendment No. 1 to its Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the city of Philadelphia, State of Pennsylvania, on the 25th day of September, 2009.

HEMISPHERX BIOPHARMA, INC.
(Registrant)

By: /s/ William A. Carter

William A. Carter, M.D.,
Chief Executive Officer

Pursuant to the requirements of the Securities Act of 1933, this Post-Effective Amendment No. 1 to the Registrant's registration statement on Form S-8 has been signed by the following persons in the capacities indicated on the dates indicated.

Signature	Title	Date
/s/ William A. Carter William A. Carter, M.D.	Chairman of the Board, Chief Executive Officer (Principal Executive) and Director	September 25, 2009
/s/ Richard C. Piani Richard C. Piani	Director	September 15, 2009
/s/ Charles T. Bernhardt Charles T. Bernhardt, CPA	Chief Financial Officer and Chief Accounting Officer	September 25, 2009
/s/ Thomas K. Equels Thomas K. Equels	Secretary and Director	September 15, 2009
/s/ William M. Mitchell William M. Mitchell, M.D., Ph.D.	Director	September 15, 2009
/s/ Iraj Eqhbal Kiani Iraj Eqhbal Kiani, Ph.D.	Director	September 15, 2009

Hemispherx Biopharma, Inc.
Post-Effective Amendment No. 1
To Form S-8
Index to Exhibits

Exhibit No.	Description
23.1	Consent of McGladrey & Pullen, LLP