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

FORM 10-K

(Mark One)

☒ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934.**
For the fiscal year ended December 31, 2010

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934.**
For the transition period from _____ to _____

Commission file number: 001-33675

AspenBio Pharma, Inc.

(Exact name of registrant as specified in charter)

Colorado	**84-1553387**
(State or other jurisdiction of incorporation or organization)	(IRS Employer Identification No.)
1585 South Perry Street **Castle Rock, CO**	**80104**
(Address of principal executive offices)	(Zip Code)

Registrant's telephone number, including area code: **(303) 794-2000**

Securities registered under Section 12(b) of the Act:

Title of Each Class	**Name of each exchange on which registered**
Common Stock, No Par Value	NASDAQ Capital Market

Securities registered under Section 12(g) of the Act: None

Indicate by check mark if the registrant is a well known, seasoned issuer, as defined in Rule 405 of the Securities Act: Yes ☐ No ☒

Indicate by check mark whether the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Exchange Act: Yes ☐ No ☒

Indicate by check mark whether the registrant (1) filed all reports required to be filed by Section 13 or 15(d) of the Exchange Act during the past twelve (12) months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files).
Yes ☐ No ☐

Indicate by check mark if there is no disclosure of delinquent filers in response to Item 405 of Regulation S-K contained in this form, and no disclosure will be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. ☒

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company (as defined in Exchange Act Rule 12b-2).

Large accelerated filer ☐	Accelerated filer ☐
Non-accelerated filer ☐ (Do not check if smaller reporting company)	Smaller reporting company ☒

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act): Yes ☐ No ☒

The aggregate market value of Common Stock held by non-affiliates of the registrant as of June 30, 2010, computed by reference to the closing price on that date was $31,080,000.

The number of shares outstanding of the registrant's common stock at April 12, 2011, was 40,138,324.

DOCUMENTS INCORPORATED BY REFERENCE

Part III of this Form 10-K is incorporated by reference to the registrant's definitive proxy statement, which is due to be filed within 120 days after the end of the registrant's fiscal year ended December 31, 2010 (the Proxy Statement).

ASPENBIO PHARMA, INC.

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DISCLOSURE REGARDING FORWARD-LOOKING STATEMENTS

Certain statements contained in this report that are not historical facts constitute forward-looking statements, within the meaning of the Private Securities Litigation Reform Act of 1995, and are intended to be covered by the safe harbors created by that Act. Reliance should not be placed on forward-looking statements because they involve known and unknown risks, uncertainties, and other factors, which may cause actual results, performance, or achievements to differ materially from those expressed or implied. Any forward-looking statement speaks only as of the date made. We undertake no obligation to update any forward-looking statements to reflect events or circumstances after the date on which they are made.

These forward-looking statements are not guarantees of the future as there are a number of meaningful factors that could cause AspenBio's actual results to vary materially from those indicated by such forward-looking statements. These statements are based on certain assumptions made based on experience, expected future developments and other factors AspenBio believes are appropriate in the circumstances. Meaningful factors, which could cause actual results to differ from expectations, many of which are beyond the control of AspenBio, include, but are not limited to, our ability to successfully complete the clinical trial data assessments required for FDA submission, obtain FDA approval for, cost effectively manufacture and generate revenues from, the acute appendicitis test in development, as well as the animal health products and other new products developed by AspenBio, and our ability to retain the scientific management team to advance the products in development, execute agreements to provide AspenBio with rights to meet its objectives, overcome adverse changes in market conditions and the regulatory environment, obtain and enforce intellectual property rights, obtain adequate financing in the future through product licensing, co-promotional arrangements, public or private equity or debt financing or otherwise; general business conditions; competition; business abilities and judgment of personnel; availability of qualified personnel; and other factors referenced herein in "Risk Factors".

PART I

ITEM 1. BUSINESS.

Overview

AspenBio Pharma, Inc. (the "Company" or "AspenBio" also "we", "us" or "our") is developing products that address unmet human diagnostic and animal health therapeutic needs. Our lead product candidate, AppyScore™ is a patented blood-based diagnostic test that, if successfully cleared for marketing by the United States Food and Drug Administration (FDA) and successfully launched, will provide emergency department physicians a valuable tool to aid in the management of patients suspected of having acute appendicitis. We believe the usefulness of AppyScore is based on its sensitivity and negative predictive value, which could provide physicians with additional clinical information to help manage patients who are at low and moderate risk of having acute appendicitis without using expensive imaging and potentially exposing the patient to unnecessary radiation from other diagnostic tests. We currently intend to seek FDA clearance for AppyScore for the intended use in the management of children and adolescents presenting in the emergency department with abdominal pain suggestive of an acute appendicitis.

AspenBio was formed in August 2000 as a Colorado corporation to produce purified proteins for diagnostic applications. We have leveraged our science and technology to develop a pipeline of product candidates. Today, the Company is primarily focused on advancing towards commercialization of AppyScore, our human diagnostic test to aid in the evaluation of acute appendicitis, as well as several novel reproduction therapeutic drugs for use in high economic value animals and livestock production.

Human Diagnostics

AppyScore is a blood-based test designed to aid in the evaluation of patients presenting signs and symptoms of acute appendicitis. The objective of the test is to provide a timely, quantitative measurements of the plasma concentration of MRP 8/14 (also known as S100A8/A9 or calprotectin) an inflammatory response biomarker. The absence of elevated biomarker concentrations, along with other diagnostic indicators, can be correlated with the absence of acute appendicitis. Thus, we believe that AppyScore has the potential to enhance the accuracy and efficiency of a physician's evaluation of suspected acute appendicitis, and improve the standard of care for acute abdominal pain. This will help the physician manage those patients who are suspected of having acute appendicitis but can be determined to be at sufficiently low risk to avoid diagnostic procedures which can be costly and potentially harmful to patients. In particular, we believe AppyScore may potentially mitigate unnecessary radiologic imaging in a percentage of the patient population entering emergency departments (ED) or urgent care centers throughout the U.S. suspected of having acute appendicitis, but at low risk for the disease. The use of AppyScore in emergency departments could also positively impact resource utilization and improve patient management. The primary focus of our recent efforts is directed toward obtaining clearance for AppyScore for the patient population consisting of children and adolescents. We are focusing on this intended use because acute appendicitis is primarily a disease that impacts children, adolescents and young adults, and the young ages of these patients heightens the desire of the ED physician to limit the use of potentially harmful diagnostic procedures, such as computed tomography (CT) imaging, which exposes the patient to radiation.

Appendicitis Overview and Market

Appendicitis is a rapidly progressing condition which typically occurs over a period of 24 to 36 hours from start to perforation. Failure to accurately diagnose and treat acute appendicitis before perforation can lead to serious complications and, in some cases, death. The current diagnostic and treatment paradigm for acute appendicitis includes many factors, such as a review of the patient's clinical presentation, health history, blood chemistry, temperature and white blood count. In the U.S. patients who are considered to be at risk for acute appendicitis are typically sent for CT imaging (or in some cases ultrasound) for further diagnosis and then surgery if indicated. Unfortunately, imaging-based methods and interpretations can lead to inaccurate or inconclusive diagnosis. It is estimated that approximately 5 to 7% of the world's population will get appendicitis in their lifetime. Published data from several sources indicates that in the United States, an estimated 10-15% of appendectomies remove a normal appendix due primarily to incorrect diagnosis prior to surgery. In the U.S. alone, according to National Hospital Ambulatory Medical Care Survey (NHAMCS) data from the Centers for Disease Control and Prevention (CDC) in 2008 there were approximately 8.7 million patients who entered emergency departments complaining of abdominal pain. Out of this total, 6.2 million had complete blood count (CBC) work-ups performed, 2.8 million underwent CT imaging studies and 1.1 million underwent ultrasound procedures. Approximately 280,000 of these total patients were diagnosed as having acute appendicitis and underwent appendectomies. Included in these totals were 1.9 million patients who were children, adolescents and young adults aged two to twenty. Out of this sub-population, 1.0 million had CBC work-ups performed, 283,000 underwent CT imaging and 219,000 underwent ultrasound procedures. Approximately 121,000 of this group of patients were diagnosed as having acute appendicitis and underwent appendectomies. To date, there appears to be no individual sign, symptom, test, or procedure capable of providing either a conclusive diagnosis or rule out of acute appendicitis. Although the use of CT scans appears to be the most widely used diagnostic tool in the U.S., its results are subject to interpretation and can be inconclusive in addition to subjecting patients to large doses of radiation. Over the past decade there has been increasing concern identified regarding the radiation exposure caused by radiologic tests. In 2010, the FDA released a report called "Initiative to Reduce Unnecessary Radiation Exposure from Medical Imaging." We believe that reports such as the FDA Report could have positive implications for a test like AppyScore which, if cleared could be used to help certain low risk patients avoid CT scanning. Misdiagnosis of acute appendicitis can lead not only to unnecessary surgery but also to delay of proper therapy for the actual underlying condition. Physicians also face the dilemma of minimizing the negative appendectomy surgery rate without increasing the incidence of a life threatening perforation among patients presenting with symptoms of suspected acute appendicitis. We expect AppyScore will provide an additional objective tool to assist physicians in their initial clinical evaluation of patients with acute abdominal pain suspicious for acute appendicitis.

Clinical and Product Development - Appendicitis

We began product development of AppyScore in 2003 with the objective of developing a blood-based, human diagnostic test to aid in the evaluation of patients suspicious for acute appendicitis. In December 2008, we completed a clinical trial (approximately 800 patients) using the ELISA-based AppyScore test for use as an aid in the evaluation of acute appendicitis. The results of this study, based upon a cut off value of 15, showed sensitivity of 89%, negative predictive value of 89% and specificity of 38%. Based on these results, in June 2009 we submitted a 510(k) premarket notification application to the FDA to seek clearance of the AppyScore ELISA-based test used in this trial. In August 2009 the FDA responded to our submission with a request for additional information. As a result of a number of factors, primarily the need to revise the test's cut-off value, the Company withdrew its 510(k) submission in mid 2010.

In March 2010, we completed enrollment for an additional clinical trial (approximately 1,000 patients) of our AppyScore ELISA-based test. The patients enrolled in this clinical trial were seen in the emergency departments of more than a dozen well-known hospitals across the United States. The statistical analysis report for this 2010 trial showed higher sensitivity (96%) and negative predictive value (92%) but lower specificity (16%) than seen in the 2008 ELISA-based study. The study report also revealed a wider range in prevalence of acute appendicitis between sites than had been anticipated. The overall prevalence of acute appendicitis was similar to that seen in the previous clinical trial, however inter-site variability was notably larger, with a wider range of patients enrolled with acute appendicitis observed between sites. We believe that the large inter-site variability in the prevalence reported is an indication of the clinical challenge of diagnosing acute appendicitis and the judgment of individual ED physicians in evaluating acute abdominal pain.

We performed, in conjunction with our consultants and scientific advisors, significant secondary analyses of the 2010 clinical trial results and data to explore the observed change in specificity in the 2010 trial as compared to the 2008 trial. These analyses suggested that the apparent differences between the two studies were primarily due to the conditions of transport for samples from the sites to the central laboratory, where the testing was conducted, in the 2010 trial. An increase in AppyScore test values that occurred in the "pre-measurement" phase between blood draw at the hospital and the testing at the central laboratory, which involved sample handling, time and transportation, resulted in an apparent increased level of false positives and, accordingly, decreased specificity. As a result of these analyses, we determined that we would not file a 510(k) premarket notification with the FDA based on the results of the 2010 AppyScore ELISA-based clinical trial. The primary reasons for this decision were:

- the low specificity observed in the study did not meet the success criteria specified in the study's statistical analysis plan; and

- although the post hoc analysis of the 2010 clinical trial results was able to identify the likely source of the performance problems, conclusions based on such a post hoc analysis would not be deemed to be acceptable performance evidence by the FDA.

In addition, a primary objective of developing the AppyScore ELISA-based product was to serve as the predicate for the rapid, single-use cassette version of the AppyScore assay. We believe that the poor performance arising from the pre-measurement sample handling should be mitigated by the cassette version of AppyScore, which will be run on site in the hospitals' laboratory shortly after the patient's blood has been drawn. We have decided to pursue FDA clearance on the cassette-based version of AppyScore. In advance of initiating our pivotal study for submission to FDA, we are currently conducting a preliminary study to provide assurance that:

- the sample handling issues described are resolved;

- the cutoff value is optimized for the intended use population of children and adolescents; and

- the study design planned for the pivotal study will be successful in validating the product for clinical use.

We are now completing the development and proceeding to the clinical validation of the single-use, cassette-based test and instrument platform, the product we had always intended to commercialize as its user characteristics meet the needs of the urgent care setting. The cassette test offers many benefits over our ELISA-based test: it can produce on-site results more rapidly, and is designed to have the results uploaded to a hospital's laboratory information system via a built-in electronic interface where desired. As a fully integrated, stand-alone assay system, we believe it will significantly improve ease of use by reducing time and processing steps over our ELISA-based test. In preliminary testing, the cassette-based test has consistently performed well and we believe the cassette-based test and its sample handling procedures will eliminate the data shift issues encountered with our ELISA-based test in the 2010 clinical trial. Clinical trials of the cassette-based test are being designed to support a stand-alone 510(k) submission to the FDA. We plan to complete development and testing of the cassette-based test and instrument platform this year and, assuming success in field testing, including a Phase I clinical study, plan to initiate a pivotal clinical trial of the cassette-based AppyScore test in 2011.

We plan to complete this Phase I clinical study of approximately 200-400 patients to gain a preliminary assessment of the performance of the AppyScore cassette-based system in the intended use population of children and adolescents, ages two to 20. Assuming a successful outcome of this Phase I study, we expect to undertake a pivotal clinical trial of an estimated 800 patients to serve as the basis for a 510(k) submission to the FDA. We expect this trial would be completed by the end of 2011, or in the first quarter of 2012, with the 510(k) submission to the FDA following completion of the pivotal trial.

The expected intended use for our AppyScore products is to aid in the evaluation of patients with signs and symptoms characteristic of acute appendicitis, when AppyScore is used in conjunction with other clinical findings and laboratory tests. The final intended use statement will be determined based upon input from the FDA and will be subject to final clearance.

We have also initiated a discovery effort to identify additional markers associated with acute appendicitis. Preliminary results of the multi-marker research are expected in the second quarter of 2011. If these efforts are successful we will make plans regarding the path and timing to advance this product.

The majority of medical *in vitro* diagnostic assays are regulated as Class II medical devices with 510(k) pre-market notification submissions based on comparing a new device to an existing legally marketed one with the new product being shown "substantially equivalent to its predicate". This is not believed to be the case with the AppyScore product. Because this product addresses an unmet need in urgent care where no similar products have been cleared, the FDA has previously indicated that there are probably no appropriate predicates. Therefore, we expect the FDA to agree to route the submission through the established *de novo* process, wherein a new diagnostic test is regulated as a Class II device but evaluated for its safety and effectiveness with a new product classification being assigned. There can be no assurance that the pathway described will be suggested by the FDA. To date, approximately 50 products have successfully followed this *de novo* path since this approach was first approved for use in 1997.

Animal Healthcare

Through our platform technology, licensed from Washington University in St. Louis (WU) and further developed at AspenBio, we are developing animal healthcare products focused on reproduction, initially in the bovine, to be followed by other livestock species of economic importance. Our largest opportunity to date in this area is BoviPure LH™ – a recombinant hormone analog that induces ovulation and may reduce the risk of pregnancy loss in dairy cows. We are also developing a drug for super-ovulation of cows: BoviPure FSH™, a bovine FSH analog that is expected to work in a single dose versus conventional native FSH drugs which require a total of 8 doses to be given every 12 hours for four consecutive days. Both of these drugs, BoviPure LH and BoviPure FSH, were sub-licensed in 2008 to Novartis Animal Health (NAH or Novartis) under a long-term world-wide development and marketing agreement.

Our products currently consist of four veterinary therapeutic drug products which are anticipated to be an important new addition to veterinary medicine with two drugs each in large livestock markets, cattle and equine. We are also advancing in the development of potential recombinant products for the commercial pig and aqua (fish) markets. BoviPure LH and BoviPure FSH are the first products in the pipeline and have been licensed to and are being developed by NAH with our technical assistance. The NAH agreement is an exclusive world-wide licensing agreement. The scope of the agreement is currently limited to the bovine FSH and LH products.

Our business strategy for animal health products has been to first demonstrate early proof-of-concept internally and then partner with a pharmaceutical company partner to complete the regulatory development of products. The concepts are developed into therapeutic products using a patented platform that enables specific modulation of therapeutic activities. We believe the outcome is a pipeline of valuable and innovative drugs designed to improve production efficiencies in livestock management. To date we have created a significant base of technical and regulatory expertise, including establishing a broad animal health industry network assisting us in developing new products.

Our product pipeline is designed to meet the needs of large animal health companies providing an opportunity for us to collaborate with these organizations that are interested in having access to novel innovation on a platform that has the potential to improve management and production of commercial livestock operations.

Human Diagnostic Antigens

Historically we have supplied purified proteins for diagnostic applications to large medical diagnostic companies and research institutions. We manufactured and sold approximately 20-30 purified protein products primarily for use as controls by diagnostic test kit manufacturers and research facilities, to determine whether diagnostic test kits are functioning properly. In 2010, we had approximately $370,000 in revenue from these products. As a result of the development activities and priorities we have placed on the blood-based human diagnostic test, AppyScore and the novel reproduction drugs for use in high value animals, the scientific resources and activities associated with the antigen business were reapportioned to other activities for 2010. In the first quarter of 2011 we have substantially terminated operations of the antigen business.

Corporate Information

We are located at 1585 S. Perry Street, Castle Rock, CO 80104. Our phone number is (303) 794-2000 and our facsimile is (303) 798-8332. We currently employ thirty-four full-time employees and two part-time employees. We believe our relationships with our employees are good. We also regularly use part-time student interns and additional temporary and contract personnel depending upon our research and development needs at any given time. We maintain a website at www.aspenbiopharma.com.

Available Information

You can access, free of charge, our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and amendments to these reports as filed with the Securities and Exchange Commission (SEC) under the Securities Exchange Act of 1934. These documents may be accessed on our website: www.aspenbiopharma.com. These documents are placed on our website as soon as is reasonably practicable after their filing with the SEC. The information contained in, or that can be accessed through, the website is not part of this annual report. These documents may also be found at the SEC's website at www.sec.gov.

Product Overview

Our current approach is to search for opportunities where we can use our scientific expertise in the fields of protein purification, molecular biology, genomics and proteomics to create unique, competitive, and where possible, proprietary and/or patented products. We also focus potentially on expanding into other uses for purified proteins, principally for diagnosis and treatment of humans and animals.

Products currently in our pipeline consist of product candidates in various stages of clinical and pre-clinical development. One of our business strategies is to focus primarily on products and technologies which we believe have attractive worldwide markets and significant product margin potential. Our acute appendicitis test, AppyScore is an example of this primary focus. We also pursue technologies under "in licensing" agreements with third parties such as universities, researchers or individuals; add value by advancing the stage of research and development on the technologies through proof of concept, and then will either "out-license" to "big pharma" and/or diagnostic companies or continue with in-house development towards regulatory approval, product introduction and launch. Presently the products in our existing pipeline are under the regulatory jurisdiction of the FDA for the United States.

AppyScore Human Acute Appendicitis Blood Test

Acute appendicitis is a common acute surgical problem primarily affecting children and young adults under 30 years of age. It typically is an acute event that occurs between 24 and 36 hours from the initiation of symptoms to the point where, if acute appendicitis is present, and the appendix is not removed, it may perforate or burst causing a potentially life threatening event. According to NHAMCS data from the CDC, it is estimated that approximately 8,700,000 patients entered U.S. emergency departments with abdominal pain in 2008 and annually there are approximately 280,000 appendectomies performed. Based upon the 2008 CDC data, approximately 44% of those emergency department visits are children and young adults aged two to twenty.

An accurate diagnosis of acute appendicitis is a difficult challenge for emergency department doctors and the ability to do so effectively is a significant factor in achieving a successful patient outcome. An accurate and effective diagnosis, however, can be time consuming, expensive and difficult because there is considerable overlap between acute appendicitis symptoms and those of other clinical conditions. Furthermore, to date there appears to be no individual sign, symptom, test, or procedure capable of providing a conclusive diagnosis or rule out of acute appendicitis. Misdiagnosis of acute appendicitis can lead not only to unnecessary surgery but also to delay of proper therapy for the actual underlying condition. A dilemma for surgeons is minimizing the negative appendectomy surgery rate without increasing the incidence of perforation among patients referred for suspected acute appendicitis. Techniques currently used by emergency department doctors to diagnose millions of patients complaining of abdominal pain are expensive, time consuming, and can have high error rates. After performing basic tests and a physical health examination, a CT scan is the most common diagnostic method used in the U.S. to evaluate acute appendicitis in patients with abdominal pain. Currently the total estimated cost of an abdominal or pelvic CT scan plus associated fees can range from several hundreds of dollars to a few thousand dollars per procedure, resulting in a total estimated expenditure of over $1.0 billion annually in the U.S. on CT scans to diagnose acute appendicitis. A scan can take more than four hours to complete (including typical processing time) and exposes the patient to high levels of ionizing radiation. While CT scans are still the current medical standard for diagnosing acute appendicitis, many times CT scan results are simply inconclusive. The present approach contributes to a significantly large number of unnecessary (negative) appendectomies, as well as false-negative conclusions due to a lack of diagnostic accuracy.

Published data from several sources indicate that in the United States, an estimated 10 to 15% of appendectomies remove a normal appendix due primarily to incorrect diagnosis prior to surgery. In addition to health risks, hospital charges for unnecessary (negative) appendectomies are estimated to cost approximately $740 million annually in the U.S. alone (Flum et al., Arch Surg. 2002;137:799-804). Appendicitis is one of the leading causes of medical malpractice claims due to many factors, including high diagnostic error rates, negative appendectomies, and increased cost and complications in cases where the appendix perforates.

Acute appendicitis most frequently occurs in patients aged 10 to 30, but can affect all ages. Using a CT scan to rule out acute appendicitis can be particularly difficult in children and young adults because many patients in these age groups have low body fat resulting in poor tissue differentiation or contrast on the CT scan. AppyScore, our blood-based acute appendicitis test, has the potential, though its negative predictive value, to enhance overall safety by reducing the amount of radiation exposure from unnecessary CT scans in the low-risk patient population. In 2010, the FDA released a report called "Initiative to Reduce Unnecessary Radiation Exposure from Medical Imaging" which we believe could have positive implications for a test like AppyScore if clearance is achieved.

Results from our development efforts and clinical trials performed to date indicate that the greatest benefit of the AppyScore test is its use in aiding in the evaluation of those patients at low risk for having acute appendicitis. We believe that AppyScore has the potential to enhance the accuracy and speed of patient evaluation and improve the standard of care for low risk patients. We anticipate that if AppyScore is cleared by the FDA, it will be incorporated in routine blood testing as a patient's blood sample is taken in the ordinary course of an initial assessment of the patient entering the emergency department or urgent care setting. Our appendicitis blood-based test is designed to measure the blood marker level, which guides the physician in helping to determine if a patient is at a low risk for acute appendicitis. We believe this test will cost-effectively and accurately assist emergency room personnel and primary care physicians in evaluating low-risk patients complaining of acute abdominal pain suspicious for acute appendicitis.

Our AppyScore test is expected to be sold into the emergency medicine diagnostic market. If successfully developed and cleared by the FDA, we expect our test will be the only commercially available blood-based test specifically designed to aid in the evaluation of acute appendicitis for low-risk patients. We believe there is a significant worldwide market opportunity for this product.

Beginning in 2004, we initiated the establishment of an intellectual property portfolio for the appendicitis testing technology and products that have been used in the development of AppyScore. We have filed for and are pursuing extensive patent coverage related to several aspects of the initial discovery and various test applications. Further enhancement and expansion of our proprietary patent position is ongoing with respect to the scope of protection for our first generation and future generation versions of the test. Strong scientific and technical progress remains the basis for these efforts. In March 2009, the United States Patent and Trademark Office issued AspenBio's patent directed to methods relating to its appendicitis diagnostic technology. This patent, No. 7,501,256, is entitled 'Methods and Devices for Diagnosis of Appendicitis'. Additional U.S. patents, 7,659,087 and 7,670,769, have recently issued on February 9, 2010 and March 2, 2010, respectively. Two foreign patents have also been allowed, Japanese patent, 4,447,641 was allowed on January 29, 2010 and Philippine patent, 12007500226, was allowed on May 11, 2010. At this time, additional foreign patent applications have been allowed or are pending.

Recombinant Analog Drugs for Animal Reproduction Technology LH and FSH

Product Pipeline

We have leveraged a platform technology to create a pipeline of products built upon the concept of novel therapeutic reproductive hormones. The base technology was licensed from Washington University in St. Louis (WU) and has been used to create recombinant protein hormone analogs that are intended to be used primarily for the livestock production industry.

The Exclusive License Agreement (WU License Agreement) between AspenBio and WU was entered into effective May 1, 2004, and grants AspenBio exclusive license and right to sublicense WU's technology (as defined under the WU License Agreement) for veterinary products worldwide, except where such products are prohibited under U.S. laws for export. The term of the WU License Agreement continues until the expiration of the last of WU's patents (as defined in the WU License Agreement) to expire. AspenBio has agreed to pay minimum annual royalties of $20,000 annually during the term of the WU License Agreement and such amounts are creditable against future royalties. Royalties payable to WU under the WU License Agreement for covered product sales by AspenBio carry a mid-single digit royalty rate and for sublicense fees received by AspenBio carry a low double-digit royalty rate. The WU License Agreement contains customary terms for confidentiality, prosecution and infringement provisions for licensed patents, publication rights, indemnification and insurance coverage. The WU License Agreement is cancelable by AspenBio with ninety days advance notice at any time and by WU with sixty days advance notice if AspenBio materially breaches the WU License Agreement and fails to cure such breach.

Our vision has been to utilize the platform technology to create analogs with targeted properties to address the specific needs of each market. The current pipeline consists of products at various stages of development. The bovine products have undergone significant development with NAH. Our equine products are also advancing internally.

The livestock industry is highly financially dependent upon effective management of reproduction. Veterinary drugs are currently used to manage reproduction; however, there are many unmet needs which we hope to advance with our drugs in development.

The product concept involves recombinant therapeutic hormone proteins that have specified biological activities to meet the target profile for a given application. These hormone proteins are designed to either augment or replace the function of two key endogenous protein hormones, LH (luteinizing hormone) and FSH (follicle stimulating hormone). The ovary contains follicles that ultimately release the egg to be fertilized. FSH controls the growth of the follicle and LH controls the egg's release. Depending on the particular application, each of these functions can be modified therapeutically to provide the greatest likelihood of success. Our platform creates novel analogs of LH and FSH that are engineered to have specific properties that meet the needs of the given market.

There are a small number of competing products that have been on the market for several decades. These are derived from natural sources such as human and animal urine and animal pituitary glands. These hormones have limited effectiveness and, more importantly, regulatory pressures on manufacturing and safety have caused many of the products to exit the market altogether. This climate creates an opportunity for our product line to meet market needs with safer, stable and potentially more effective alternatives. We anticipate the platform technology will enable us to create solutions for the needs of livestock markets.

Cattle Reproduction Products

We believe that the bovine market, primarily dairy operations, represents the largest market opportunity of our current animal products in development.

The success of a modern dairy cow operation is dependent upon a number of critical factors. Several of these factors are outside the control of the dairy producer, such as milk prices and costs for feed, nutrients, and medicines. Other factors, however, are within the dairyman's control such as size of the operation (number of head milked), labor costs, and access to high quality bulk feed. The amount of revenue derived from milk sales is a function of the quantity of milk produced and the level of milk fat contained in the milk. These factors correspond directly to the amount of time that a cow is pregnant. The more days during a year that a cow is not pregnant (frequently referred to as "open"), the lower the annual milk production from that cow, hence the lower the revenue received.

The worldwide population of dairy cows is estimated to exceed 125 million, of which approximately 56 million cows are located in North America, Europe and the former Soviet Union. According to industry estimates approximately 70% of cows in the North American and European dairy industry are artificially inseminated (AI). The average number of days per year that a cow remains open has steadily increased over a number of years. This has had a negative impact on the average milk revenue produced per head. A significant percentage of dairy cows, when artificially inseminated, do not become pregnant. There is a growing percentage, estimated currently at over 70% of artificially inseminated cows that do not become pregnant or they abort or absorb prior to delivery. Lower pregnancy rates are associated with higher milk production costs.

Several reproduction drug products and breeding management programs have been introduced over the last 20 to 30 years that are designed to create more effective breeding programs for artificially inseminated cows. Despite these drugs and programs, cattle reproduction efficiencies have continued to decline. The total cost of artificially inseminating a cow, includes the semen, breeder time, and the administration of two drugs GnRH and prostaglandin. The majority of this cost is incurred again with each subsequent artificial insemination, averaging at least two treatments per year to achieve successful pregnancy.

Dairy cows that fail to conceive or maintain a viable pregnancy after AI result in significant financial and production losses to the dairy. BoviPure-LH utilizes our exclusively licensed drug technology which we believe will offer cost and performance advantages over conventional bovine hormone products currently available in the worldwide market. We believe this drug may create a totally new pregnancy maintenance market to enhance dairy economics for artificially inseminated dairy cows.

It is estimated that there are between 16 and 20 million artificial insemination attempts annually in dairy cows in the United States alone. Research has indicated that our single-chain products may provide additional economic benefits to expand the market potential for use with artificial insemination in dairy cows. We also believe there are additional potential market opportunities outside the U.S. Actual market penetration forecasts would depend on the drug efficacy (rate of ovulation, enhancement of fertility and pregnancy improvement which have yet to be determined) along with the ability to penetrate the total market.

Our cattle product candidates, BoviPure LH and BoviPure FSH, limited to use in the bovine species (cattle), were licensed in 2008 to Novartis under a long-term world-wide development and marketing agreement and are currently advancing in development. The Exclusive License Agreement (Novartis License Agreement) between AspenBio and NAH was entered into effective April 2, 2008, and amended from time to time, and grants Novartis a license to AspenBio technology and a sublicense to WU's technology (each as defined under the Novartis License Agreement) for use in bovine species products worldwide. The term of the Novartis License Agreement continues until the expiration of the last to expire of the licensed patent rights, product sales are terminated, or, generally, ten years after the initial product sales if licensed patent rights are not available on a country-by-country basis. The Novartis License Agreement provides that Novartis and AspenBio share development expenses and product sales margins under a splitting arrangement. AspenBio's share of development expenses is in the low double digit range. Please see "Liquidity and Capital Resources" for disclosure regarding our expenditures under the agreement. AspenBio's share of the product sales margins varies depending upon the level of patent protection and competition on a country-by-country basis and varies from the very low to low double digit range.

AspenBio received an upfront cash payment of $2,000,000 under the Novartis License Agreement, of which 50% was non-refundable upon signing the agreement, and the balance subject to certain conditions. In 2010 the conditions associated with $100,000 of such milestones were satisfied. Novartis has the right to request a refund of the $900,000 remaining milestone payment and/or terminate the agreement if the pilot study (as defined in the agreement) is not successful. This pilot study was completed during late 2010. NAH has informed us that preliminary pilot study results revealed failure of the pilot study to demonstrate the outcomes as defined in the success criteria, and NAH requested a refund of the $900,000 milestone payment. We recently received the final, detailed report of the pilot study from NAH and are in the process of reviewing it. NAH has indicated that they would defer the refund request until we have had an opportunity to review the final report. We plan to work with NAH to obtain additional information and understand the implications of the pilot study results on product development efforts under the Novartis License Agreement.

The Novartis License Agreement contains customary terms for confidentiality, prosecution and infringement provisions for the license patent rights, indemnification and insurance coverage. The Novartis License Agreement is cancelable by Novartis on 180 days advance notice; immediately if a change in control transaction occurs and Novartis' rights are not accommodated in good faith by the successor entity; or on 30 days notice on a country-by-country basis in the event designated legal or regulatory issues arise. AspenBio can terminate the agreement immediately if Novartis challenges the validity or enforceability of licensed patent rights or other licensed intellectual property. Either party may terminate if the other party materially breaches the Novartis License Agreement, and fails to cure such breach, becomes insolvent or if either party disposes of substantially all of the assets necessary for its performance under the terms of the agreement. In the event there is a change of ownership in AspenBio, Novartis may choose to assume all obligations under the agreement and generally remit net excess royalty amounts to the successor entity.

Under the world-wide agreement with NAH, development of both BoviPure-LH and BoviPure-FSH are advancing, with the majority of the development efforts led by NAH. Our scientific staff is working closely with NAH on this project. These specialized products are designed to create more effective breeding programs for artificially inseminated dairy cows (LH) and to increase the efficiency of super-ovulation (FSH) in other cattle.

BoviPure-LH

BoviPure-LH is a novel LH analog for cows. This new hormone analog is designed to induce ovulation and produce an effect that has been shown to reduce the rate of pregnancy loss in cows. Currently, it is estimated that more than 70% of dairy cows fail to conceive and / or maintain a viable pregnancy resulting in significant financial and production losses to dairy farmers.

It is estimated that there are between 16 and 20 million artificial insemination attempts annually in dairy cows in the United States alone. We believe the U.S. fertility control market for BoviPure LH could be substantial. While large scale statistically significant studies are required to definitively demonstrate its specific properties and advantages, we believe BoviPure-LH would be an applicable and beneficial product, if approved by the FDA and administered to dairy cows as part of an artificial insemination program as a therapeutic treatment to improve the quality of ovulation and help maintain pregnancy. It is anticipated that if this product receives regulatory clearance it would be prescribed and administered by licensed veterinarians; we expect the ultimate customers will be producer clients operating commercial dairy herds using timed (synchronized) breeding programs and would be marketed under the NAH License Agreement.

We anticipate the benefits and value of the BoviPure-LH product, if able to be successfully launched into the dairy industry, are summarized as follows:

1. Pregnancy rates may increase and potentially reduce the additional cost and manipulation to the animal of repeated reproduction treatments;
2. Potentially reduce average days a cow is "open", thereby improving overall milk production, milk quality and calf production;
3. Anticipated cost per application may be cost-justified to the dairy operator;
4. The product is expected to be easy to administer; and
5. Technology is patented with additional patents pending.

BoviPure-FSH

BoviPure-FSH is a novel FSH analog for cows. It is designed for super ovulation for embryo transfer in dairy and beef cows throughout the world. We expect the initial usage will be greatest in the beef industry but may expand in the dairy industry with advances in and the anticipated increased use of predetermined sex semen for artificial insemination. This product is in development and is expected to provide significant benefits including superior single-dose product efficacy, unmatched purity, consistent bioactivity and significant labor savings for end users, versus conventional "animal-derived" pituitary extract FSH products currently on the market. These benefits are important to users of FSH products currently on the market. Conventional FSH products, all of which are directly harvested from animal organs, have inherent problems with product safety, purity and consistency. In addition, these conventional FSH products require considerable human and facility resources with an average of 8 treatments given every 12 hours for 4 consecutive days for every animal being treated versus our single treatment product.

BoviPure-FSH, upon regulatory approval would be marketed by Novartis Animal Health under our agreement with them. It is expected that if this drug becomes commercially available its uses may grow due to other developments in animal reproduction. This product could be prescribed and marketed by licensed veterinarians, and the ultimate customers will be producer clients operating commercial dairy and beef breeding herds.

Equine Reproduction Products

The equine (horse) breeding industry currently lacks effective methods that can effectively impact and control follicular development and ovulation. Extracts containing pituitary-derived LH and FSH have been shown to be somewhat effective; however, there is currently no commercially available product. Transportation of mares in winter months to warmer climates and the use of lights to simulate longer days are also regularly used to attempt to impact ovulation.

We are currently advancing in the development and testing of equine products EquiPure-LH™ (LH analog for horses) and EquiPure-FSH™ (FSH analog for horses). These specialized products are designed to create more effective breeding programs for horses. The ability to influence the timing of when mares are ready to breed, including potentially accelerating the seasonal ovulation, improving the success rate of bred mares and increasing the number of embryos produced and harvested for transplant, are all valuable in equine reproduction worldwide. We have collaborated with researchers at several universities over several years to study these products and produce a number of publications regarding the basic science of these analogs. As part of our equine product development considerations, we are exploring options for securing funding for such product development as a separate funding opportunity.

EquiPure-LH

EquiPure-LH is a novel LH analog for horses. It is designed to induce ovulation in estrous mares thereby providing better overall breeding management and convenience to breeders. It is expected that this product will be prescribed and administered by licensed veterinarians when and if it is cleared for use by the FDA. Ultimate customers would be horse-owners and breeding farm operations.

EquiPure-FSH

EquiPure-FSH is a novel FSH analog for horses. It is designed to assist mares through transition and for super-ovulation (for embryo transfer) in horses throughout the world. Based upon an industry report, the U.S. horse industry spends an estimated $1.5 billion annually for breeding for new foals. Yet it annually loses billions of potential future value with unrealizable revenues due to poor breeding efficiency of mares.

The most significant breeding issue in mares is the timing conflict existing between horse breeders' goals versus the animal's normal breeding cycle during the year. The natural breeding season in horses in the Northern Hemisphere is from April to October. There are several beneficial reasons to try to influence the normal pattern of reproduction. In racing and some performance horses the age of the horse is always measured as of January 1st in the year of birth, therefore it is important that foals are born as early as possible in the year so that they have more time to develop their mature body weight (and strength) by the time they compete as two and three year olds. The demands of competition and sales, breeders and investor owners desire early breeding in the calendar year. This objective requires forced breeding programs. Current programs include extending the mare's daily photoperiod by artificial lighting in an attempt to advance reproductive activity. This process requires approximately eight weeks and is costly (labor, feed, electricity) and requires additional infrastructure on the farm. There are currently no effective therapeutic drugs available to address this problem. EquiPure-FSH is designed to and in preliminary studies has been shown to provide a solution.

Thoroughbred horses would comprise an important worldwide segment of the EquiPure-FSH market, if the product receives regulatory approval. According to 2009 Jockey Club statistics, there were an estimated 45,000 mares bred in the U.S. and 180,000 worldwide. Additionally the embryo transfer (ET) market is significant. The 2009 International Embryo Transfer Society worldwide data lists approximately 60,000 donor and recipient mares combined used in ET activities. Argentina and Brazil dominate the ET industry with an estimated total of two-thirds of the worldwide transfers occurring. A significant portion of that activity relates to horses used in polo activities.

Raw Materials

Our human antigens products were purified from human tissue or fluids. In 2010, due to the fact that the Company is focusing its efforts primarily on the development of other products, primarily its AppyScore test, purchases of these raw materials was suspended.

Intellectual Property

In May 2003, AspenBio entered into an Assignment and Consultation Agreement (the Bealer Agreement) with Dr. John Bealer related to the appendicitis diagnosis technology. The Bealer Agreement transferred to AspenBio ownership rights from Dr. Bealer to AspenBio for inventions and related improvements to technology associated with human appendicitis diagnostics involving protein antigens. The purchase price was the payment of a future royalty to Dr. Bealer based upon a low double digit rate applied to revenues, all as defined under the agreement. The Bealer Agreement contains confidentiality provisions, provides for the assignment of all patent rights to AspenBio (which has occurred) and restrictions on the assignability of the agreement. The Bealer Agreement continues for the longer of twenty years or the expiration of the last AspenBio patent to expire. AspenBio may terminate the Bealer Agreement if AspenBio in its reasonable judgment decides it has no interest in pursuing the opportunity as defined under the agreement.

In 2004, AspenBio began building an intellectual property portfolio for the human appendicitis testing technology and products. The Company has filed for worldwide patent coverage related to several aspects of the initial discovery (including the intellectual property assigned from Dr. Bealer) and various test applications. During early 2006, the Company's U.S. and international patent applications entitled "Methods and Devices for Diagnosis of Appendicitis" and owned by AspenBio, were published by the United States Patent Office and the International Bureau of the World International Patent Organization. In March 2009, the United States Patent and Trademark Office issued AspenBio's United States patent directed to methods relating to its appendicitis diagnostic technology. In March 2009 the United States Patent and Trademark Office issued AspenBio's patent No. 7,501,256, ('Methods and Devices for Diagnosis of Appendicitis'), expiring in February 2026. Additional U.S. patents, 7,659,087 and 7,670,769, were issued on February 9, 2010 and March 2, 2010, respectively expiring in July 2025. Four foreign patents related to the appendicitis family patent case were granted in 2010. Japanese patent, 4447641, was granted on January 29, 2010 (expiring July 2025), Japanese divisional patent, 4486153, was granted on April 20, 2010 (expiring July 2025), Philippine patent, 1-2007-500226, was granted on May 11, 2010 (expiring July 2025) and the New Zealand patent, 553386, was granted on September 30, 2010 (expiring July 2025). We also have filed additional patent applications seeking to expand the worldwide position of intellectual property protection associated with this technology as further discussed below.

Further enhancement and expansion of our proprietary patent position is ongoing with respect to the scope of protection for the Company's first generation and future generation versions of tests. Strong scientific and technical progress remains the basis for these innovative efforts.

The patent portfolio for the human AppyScore appendicitis diagnostic technologies has continued to be expanded. The platform patent position has progressed towards strategic worldwide coverage. Additionally, new filings have been made to expand the scope of coverage. These additional filings provide protection for devices that measure AppyScore in addition to the method of using AppyScore to aid in the evaluation of patients suspected of acute appendicitis. These improvements are designed to significantly enhance the quality and increase the speed of making clinically relevant diagnostic information available. These developments also offer more rapid test results in comparison with imaging techniques, while reducing the risk of ionizing radiation exposure to the patient.

The patent portfolio for the animal health products originated under the exclusive license agreement with Washington University (St. Louis, MO), where we obtained intellectual property rights to their patent estate consisting of an extensive portfolio of patents and pending patent applications (approximately 25 patents and numerous patent applications) related to our animal health products under development. The term of the WU License Agreement ends upon the expiration of the last patent to expire. Patents in the estate begin to expire in 2014; the last to expire of the current patents will occur after 2028. WU has filed, and continues to file, patent applications to expand and extend the patent coverage of the WU technology. AspenBio reimburses WU for the costs of such patent filings, prosecution and maintenance. Additional patents owned by AspenBio in the animal health area cover the use of luteinizing hormones (LH) and bovine pregnancy test and detection have been issued or allowed in the United States, Australia, New Zealand and the European Patent Convention (EPC) and expire in 2023 to 2024. We have filed and continue to file patent applications to expand and extend the patent coverage of this technology. We are currently developing and testing products using the WU and AspenBio technology in the bovine and equine areas and may develop products for a number of other species as well.

Three foreign patents have been granted for animal health technology 'Methods and Kits for Maintaining Pregnancy, Treating Follicular Cysts, and Synchronizing Ovulation Using Luteinizing Hormone', New Zealand patent 542549 was granted March 12, 2009 (expiring March 2024), Australia 2004218365 was granted May 27, 2010 (expiring March 2024) and European patent 1610803 was granted December 15, 2010 (expiring March 2024).

We have filed for patent applications on a number of our technologies. As a matter of general practice we pursue patent coverage on technology and developments we believe can be suitably protected in this manner.

General Operations

Backlog and Inventory — historically our antigen business has not been seasonal in nature. Some of the products we are working on we expect to be seasonal in nature such as EquiPure LH due to the breeding season for horses. Because we produce proteins on demand, we do not maintain a backlog of orders. We believe we have reliable sources of raw materials and do not require significant amounts of raw materials. As a result, we do not expend large amounts of capital to maintain inventory.

Payment terms — Historically in connection with our human antigen business we did not provide extended payment terms, other than to support certain new product introductions, and then with terms of no more than 60 days.

Revenues — historically the majority of our revenues have come from U.S. customers of our human antigen business with no long-term supply agreements and orders processed on a purchase-order basis. Four customers accounted for $215,000 of the total 2010 sales and individually represented 10%, 11%, 18% and 19% of such sales. During the years ended December 31, 2010, 2009 and 2008, one European-based company, accounted for a total of 4%, 3% and 2%, respectively of our net sales. Our U.S. based revenues for the years ended December 31, 2010, 2009 and 2008 were $370,000, $291,000 and $821,000, respectively.

Research and Development

We expended $6,019,000 on research and development in fiscal 2010, $8,714,000 in fiscal 2009 and $6,025,000 in fiscal 2008. We anticipate that expenditures for research and development for the fiscal year ending December 31, 2011 will generally decrease somewhat as compared to the amounts expended in 2010 due primarily to lower anticipated clinical trial consulting costs in 2011.

Development and testing costs in support of the current pipeline products, as well as costs to file patents and revise and update previous filings on our technologies, will continue to be substantial. Our principal development products consist of the acute appendicitis tests and the single-chain animal hormone drug products. As we continue towards commercialization of these products including evaluation of strategic alternatives to effectively maximize the value of our technology, we will need to consider a number of alternatives, including possible capital raising or other transactions and partnering opportunities, working capital requirements including possible product management and distribution alternatives and implications of product manufacturing and associated carrying costs. Certain costs such as manufacturing and license / royalty agreements have different implications depending upon the ultimate strategic path determined.

We expect that the primary expenditures will be incurred to continue to advance our initial acute appendicitis blood test technology, AppyScore, through the FDA application and clearance process in addition to advancing development of the next generation acute appendicitis products. During the years ended December 31, 2010, 2009 and 2008, we expended approximately $3,371,000, $6,290,000 and $4,446,000, respectively in direct costs for the acute appendicitis test development and related efforts. Should we be unable to achieve FDA clearance of the AppyScore test and generate revenues from the product, we would need to rely on other product opportunities to generate revenues and the costs that we have incurred for the appendicitis patent may be deemed to be impaired.

In April 2008 we entered into a long term exclusive license and commercialization agreement with Novartis Animal Health, Inc., to develop and launch our novel recombinant single-chain bovine products, BoviPure LH and BoviPure FSH. The license agreement is a collaborative arrangement that provides for a sharing of product development activities, development and registration costs and worldwide product sales for the bovine species. AspenBio received an upfront cash payment of $2,000,000 under the Novartis License Agreement, of which 50% was non-refundable upon signing the agreement, and the balance subject to certain conditions. In 2010 the conditions associated with $100,000 of such milestones were satisfied. Novartis has the right to request a refund of the $900,000 remaining milestone payment and/or terminate the agreement if the pilot study (as defined in the agreement) is not successful. This pilot study was completed during late 2010. NAH has informed us that preliminary pilot study results revealed failure of the pilot study to demonstrate the outcomes as defined in the success criteria, and NAH has requested a refund of the $900,000 milestone payment. We recently received the final, detailed report of the pilot study from NAH and are in the process of reviewing it. NAH has indicated that they would defer the refund request until we have had an opportunity to review the final report. We plan to work with NAH to obtain additional information and understand the implications of the pilot study results on product development efforts under the Novartis License Agreement. According to the terms of the Novartis License Agreement, royalties will be payable upon product launch based upon net direct product margins as defined and specified under the agreement. During the years ended December 31, 2010, 2009 and 2008, we expended approximately $1,154,000, $1,109,000 and $478,000, respectively in direct costs for the BoviPure LH and BoviPure FSH product development and related efforts.

In 2003, we entered into a distribution agreement with Merial Limited for the worldwide sales and marketing rights to a novel blood test designed to identify open cows 10 to 20 days sooner than methods currently used. Based on the findings of a field trial during 2003, we concluded that improvements were needed to the test and subsequently determined, in 2009, to stop development of the test. As of December 31, 2009, we and Merial Limited entered into a Settlement and Release Agreement (the Settlement Agreement) to terminate the Distribution Agreement dated May 23, 2003 between us. As a result of that termination we agreed to refund to Merial Limited in 2009, $50,000 of the original $200,000 they had paid to us and the remaining $150,000 was waived and we recognized this as revenue in 2009.

We have entered and expect to continue to enter into additional agreements with contract manufacturers for the development / manufacture of certain of our products for which we are seeking or plan to seek FDA clearance. The ultimate goal of this development process is to establish current good manufacturing practices (cGMP) manufacturing methods required for those products for which we are seeking FDA clearance. We enter into discussions from time to time with various potential manufacturers who meet full cGMP requirements, and are capable of large-scale manufacturing batches of our medical devices who can economically manufacture them to produce products at an acceptable cost. These development and manufacturing agreements generally contain transfer fees and possible penalty and / or royalty provisions should we transfer our products to another contract manufacturer. We expect to continue to evaluate, negotiate and execute additional development and manufacturing agreements, some of which may be significant commitments during 2011. We may also consider acquisitions of development technologies or products, should opportunities arise that we believe fit our business strategy and would be appropriate from a capital standpoint.

Compliance

FDA

The FDA has regulatory authority over virtually all of our products in development.

AppyScore Acute Appendicitis Blood Tests —The FDA's Center for Devices and Radiological Health (CDRH) is responsible for regulating firms who manufacture, repackage, re-label and or import medical devices sold in the United States. Medical devices are classified into Class I, II and III. Currently our acute appendicitis test in development is anticipated to be classified as a non-invasive Class II medical device by the FDA, which will require Premarket Notification 510(k) clearance. We continue to anticipate being able to obtain FDA 510(k) clearance of our acute appendicitis blood test following successful completion of required clinical trials and other activities. Generally FDA product clearance is granted after specific clinical trials, GMP validations and quality control requirements have been achieved to the agency's satisfaction. There is no assurance that we may obtain FDA clearance to market our acute appendicitis test.

In June 2009, we submitted a 510(k) application to the FDA, with our then current ELISA platform and data from our December 2008 clinical trial on the basis of comparing this new test to an existing assay, or "predicate". We subsequently withdrew that 510(k) application in February 2010. Although we previously submitted, and will submit our 510(k), using a predicate, we expect that because AppyScore is the first blood-based test to aid in the evaluation of acute appendicitis, the FDA may not agree that a predicate exists. However, if this happens we would then expect to be told by the FDA that there is no substantially equivalent predicate and the application will be routed into the *de novo* process, a procedural method that places a new diagnostic test on the a path to receive a new classification. There can be no assurance this will be the outcome of our submission. Based on conversations with our consultants we believe this may be the pathway for AppyScore. This allows the FDA to review the product without a predicate being defined. To date, around 50 products have successfully followed this path since this approach was first used in 1997.

Any product clearances or approvals that are granted remain subject to continual FDA review, and newly discovered or developed safety or efficacy data may result in withdrawal of products from the market. Moreover, if and when such approval is obtained, the manufacture and marketing of such products remain subject to extensive regulatory requirements administered by the FDA and other regulatory bodies, including compliance with current GMP, adverse event reporting requirements and the FDA's general prohibitions against promoting products for unapproved or "off-label" uses. Manufacturers are subject to inspection and market surveillance by the FDA for compliance with these regulatory requirements. Failure to comply with the requirements can, among other things, result in warning letters, product seizures, recalls, fines, injunctions, suspensions or withdrawals of regulatory approvals, operating restrictions and criminal prosecutions. Any such enforcement action could have a material adverse effect on our business. Unanticipated changes in existing regulatory requirements or the adoption of new requirements could also have a material adverse effect on our business.

BoviPure LH and BoviPure FSH Drugs — Novartis Animal Health has filed and received an INADA file numbers which officially commenced the approval process with the Veterinary — CVM section of the FDA for BoviPure LH (LH analog for cows) and BoviPure FSH (FSH analog for cows).

EquiPure LH and FSH Drugs — we are evaluating our position and plans regarding INADA filings for these two drugs and (Veterinary — CVM) FDA approval.

Environmental Protection

We are subject to various environmental laws pertaining to the disposal of hazardous medical waste. We contract for disposal of our hazardous waste with a licensed disposal facility. We do not expect to incur liabilities related to compliance with environmental laws; however, we cannot make a definitive prediction. The costs we incur in disposal of hazardous waste have not been significant.

Other Laws

We are also subject to other federal, state and local laws, pertaining to matters such as safe working conditions and fire hazard control.

Glossary of Terms

Human Diagnostic Terms:

Biomarker tests — *tests that identify and quantify markers associated with disease or medical condition*

Complete Blood Count (CBC) — *a blood test used to evaluate overall health and detect a wide range of disorders, including anemia, infection and leukemia*

De Novo Classification –*a mechanism defined by the FDA Modernization Act (Section 513(f)) for classifying new medical devices for which there is no predicate, providing the product with a risk-based Class II classification allowing clearance under as a 510(k)*.

ELISA (Enzyme Linked Immunosorbant Assay) — *immunological method used to test a sample for a protein marker*

Genomics — *method of identifying target genes*

GMP \ cGMP — *Good Manufacturing Practice \ Good Manufacturing Practice compliant*

Immunoassay-based — *test that uses antibody-antigen interaction as method of measure*

Proteomics — *method of identifying target proteins*

Recombinant — *Novel DNA made by genetic engineering*

WBC — *an abbreviation for white blood cell count. The white blood cells are analyzed from a blood sample collected as part of a standard protocol for patients suspected of having acute appendicitis who have entered the Emergency Department of a hospital.*

Animal Health Terms:

Artificially inseminated (AI) — *the process in which a female has been bred via use of semen which does not involve the physical live mounting / breeding using a bull*

Compounded Deslorelin reagents — *synthetic gonadotropin releasing hormone drug*

Embryo transfer — *transfer of an embryo from one female to another*

Follicle stimulating hormone (FSH) — *hormone that induces ovarian follicular development*

GnRH-derived products — *synthetic gonadotropin releasing hormone compounds*

Gonadorelin — *synthetic gonadotropin releasing hormone compound*

Gonadotropins — *See LH and FSH*

Heterodimeric complex — *natural form of gonadotropin comprising a complex of an alpha and beta subunit which can easily become dissociated*

Histopathologic — *pertaining cell and histological structure in diseased tissue*

INADA — *an investigational new animal drug application filed with the FDA*

Luteinizing hormone (LH) — *hormone that induces ovulation*

Prostaglandin — *hormone that causes regression of the corpus luteum*

Single-chain analogs — *see single-chain gonadotropin*

Single-chain gonadotropin — *recombinant forms of gonadotropins composed of the alpha and beta subunits fused in a single polypeptide*

Single-polypeptide-chain-variants- *see single-chain gonadotropin*

Super ovulation — *using hormone treatment to stimulate a female to produce more than one ova at one time*

ITEM 1A. — RISK FACTORS

If any of the following risks actually occur, they could materially adversely affect our business, financial condition or operating results. In that case, the trading price of our common stock could decline.

Risks Related to Our Business

If we fail to obtain FDA clearance, we cannot market certain products in the United States.

Therapeutic or human diagnostic products require FDA approval (or clearance) prior to marketing and sale. This applies to our ability to market, directly or indirectly, our AppyScore acute appendicitis test. As a new product, this test must undergo lengthy and rigorous testing and other extensive, costly and time-consuming procedures mandated by the FDA. In order to obtain required FDA clearance, we may determine to conduct additional specific clinical trials; this process can take substantial amounts of time and resources to complete. We may elect to delay or cancel our anticipated regulatory submissions for new indications for our proposed new products for a number of reasons. There is no assurance that any of our strategies for obtaining FDA clearance or approval in an expedient manner will be successful, and FDA clearance is not guaranteed. The timing of such completion, submission and clearance could also impact our ability to realize market value from such tests. FDA clearance can be suspended or revoked, or we could be fined, based on a failure to continue to comply with those standards. Similar approval requirements and contingencies will also be encountered in a number of major international markets.

FDA approval is also required prior to marketing and sale for therapeutic products that will be used on animals, and can also require considerable time and resources to complete. New drugs for animals must receive New Animal Drug Application approval. This type of approval is required for the use of our therapeutic equine and bovine protein products. The requirements for obtaining FDA approval are similar to that for human drugs and will require similar clinical testing. Approval is not assured and, once FDA approval is obtained, we would still be subject to fines and suspension or revocation of approval if we fail to comply with ongoing FDA requirements.

If we fail to obtain FDA approval for our human diagnostic products or our animal health therapeutic products, we will not be able to market and sell our products in the U.S. As a result, we would not be able to recover the time and resources spent on research and development of such products.

The successful development of a medical device such as our acute appendicitis test is highly uncertain and requires significant expenditures and time.

Successful development of medical devices is highly uncertain. Products that appear promising in research or development may be delayed or fail to reach later stages of development or the market for several reasons, including failure to obtain regulatory clearance or approval, manufacturing costs, pricing, reimbursement issues, or other factors that may make the product uneconomical to commercialize. In addition, success in preclinical clinical trials does not ensure that larger-scale clinical trials will be successful. Clinical results are frequently susceptible to varying interpretations that may delay, limit, or prevent regulatory approvals. The length of time necessary to complete clinical trials and to submit an application for marketing approval for a final decision by a regulatory authority varies significantly and may be difficult to predict. If our large-scale clinical trials for a product are not successful, we will not recover our substantial investments in that product.

Factors affecting our R&D productivity and the amount of our R&D expenses include, but are not limited to the number and outcome of clinical trials currently being conducted by us and/or our collaborators.

Clinical trials for our products are expensive and until completed their outcome is uncertain.

Conducting clinical trials is a lengthy, time-consuming and expensive process. Before obtaining regulatory approvals for the commercial sale of any products, we or our partners must demonstrate through clinical trials the efficacy of our products. We have incurred, and we will continue to incur, substantial expense for, and devote a significant amount of time to, preclinical testing and clinical trials.

In 2009 and 2010 we expended significant resources in the conduct of clinical trials on our ELISA-based AppyScore product. The statistical analysis report for the 2010 trial showed higher sensitivity (96%) and negative predictive value (92%) but lower specificity (16%) than seen in the 2008 ELISA-based study. The study report also revealed a wider range in prevalence of acute appendicitis between sites than had been anticipated. The overall prevalence of acute appendicitis was similar to that seen in the previous clinical trial conducted in 2008, however inter-site variability was notably larger, with a wider range of patients enrolled with acute appendicitis observed between sites. We believe that the large inter-site variability in the prevalence reported is an indication of the clinical challenge of diagnosing acute appendicitis and the judgment of individual ED physicians in evaluating acute abdominal pain. We performed, in conjunction with our consultants and scientific advisors, significant secondary analyses of the 2010 clinical trial results and data to explore the observed change in specificity in the 2010 trial as compared to the 2008 trial. These analyses suggested that the apparent differences between the two studies were primarily due to the conditions of transport for samples from the sites to the central laboratory, where the testing was conducted, in the 2010 trial. An increase in AppyScore test values that occurred in the “pre-measurement” phase between blood draw at the hospital and the testing at the central laboratory, which involved sample handling, time and transportation, resulted in an apparent increased level of false positives and, accordingly, decreased specificity. As a result of these analyses, we determined that we would not file a 510(k) premarket notification with the FDA based on the results of the 2010 AppyScore ELISA-based clinical trial.

We are currently conducting Phase 1 clinical studies of our cassette-based AppyScore product and anticipate, based upon favorable results from such study, to initiate a pivotal clinical trial of our cassette-based AppyScore product in 2011. If we encounter unfavorable results or other unexpected issues, our ability to initiate such pivotal clinical trial could be delayed. Any such delay could have a material adverse effect on the Company.

Our business, results of operations and financial condition may be materially adversely affected by any delays in, or termination of, our clinical trials.

We face competition in the biotechnology and pharmaceutical industries.

We face intense competition in the development, manufacture, marketing and commercialization of diagnostic products such as ours from a variety of sources — from academic institutions, government agencies, research institutions and biotechnology and pharmaceutical companies, including other companies with similar technologies, including those with platform technologies. These platform technologies vary from very large analyzer systems to smaller and less expensive instruments similar to ours. These competitors are working to develop and market other diagnostic tests, systems, products, and other methods of detecting, preventing or reducing disease.

The development of new technologies or improvements in current technologies for diagnosing acute appendicitis, including CT imaging agents and products that would compete with our acute appendicitis test could have an impact on our ability to sell the acute appendicitis tests or the sales price of the tests. This could impact our ability to market the tests and / or secure a marketing partner both of which could have a substantial impact on the value of our acute appendicitis products.

Among the many experimental diagnostics and therapies being developed around the world, there may be some that we do not now know of that may compete with our technologies or products.

Many of our competitors have much greater capital resources, manufacturing, research and development resources and production facilities than we do. Many of them also have much more experience than we do in preclinical testing and clinical trials of new drugs and in obtaining FDA and foreign regulatory approvals.

Major technological changes can happen quickly in the biotechnology and pharmaceutical industries, and the development of technologically improved or different products or technologies may make our product candidates or platform technologies obsolete or noncompetitive.

Our product candidates if successfully developed and approved for commercial sale, will compete with a number of drugs and diagnostic tests currently manufactured and marketed by major pharmaceutical and other biotechnology companies. Our product candidates may also compete with new products currently under development by others or with products which may cost less than our product candidates. Physicians, patients, third party payors and the medical community may not accept or utilize our acute appendicitis test products when and if approved. If our products, if and when approved, do not achieve significant market acceptance, our business, results of operations and financial condition may be materially adversely affected.

Medical reimbursement for our products under development, as well as a changing regulatory environment, may impact our business.

The U.S. healthcare regulatory environment may change in a way that restricts our ability to market our acute appendicitis tests due to medical coverage or reimbursement limits. Sales of our human diagnostic tests will depend in part on the extent to which the costs of such tests are paid by health maintenance, managed care, and similar healthcare management organizations, or reimbursed by government health payor administration authorities, private health coverage insurers and other third-party payors. These healthcare management organizations and third party payers are increasingly challenging the prices charged for medical products and services. The containment of healthcare costs has become a priority of federal and state governments. Accordingly, our potential products may not be considered cost effective, and reimbursement to the consumer may not be available or sufficient to allow us to sell our products on a competitive basis. Legislation and regulations affecting reimbursement for our products may change at any time and in ways that are difficult to predict and these changes may be adverse to us. Any reduction in Medicare, Medicaid or other third-party payer reimbursements could have a negative effect on our operating results.

We have very little sales and marketing experience and limited sales capabilities, which may make commercializing our products difficult.

We currently have very little marketing experience and limited sales capabilities. Therefore, in order to commercialize our products, once approved, we must either develop our own marketing and distribution sales capabilities or collaborate with a third party to perform these functions. We may, in some instances, rely significantly on sales, marketing and distribution arrangements with collaborative partners and other third parties. In these instances, our future revenues will be materially dependent upon the success of the efforts of these third parties.

We may not be able to attract and retain qualified personnel to serve in our sales and marketing organization, to develop an effective distribution network or to otherwise effectively support our commercialization activities. The cost of establishing and maintaining a sales and marketing organization may exceed its cost effectiveness. If we fail to develop sales and marketing capabilities, if sales efforts are not effective or if costs of developing sales and marketing capabilities exceed their cost effectiveness, our business, results of operations and financial condition would be materially adversely affected.

If we successfully obtain FDA clearance to market our acute appendicitis tests, we may experience manufacturing problems that could limit the near term growth of our revenue.

Our ability to successfully market the acute appendicitis tests once approved will partially depend on our ability to obtain sufficient quantities of the finished test from qualified GMP suppliers. While we have identified and are progressing with qualified suppliers, their ability to produce tests or component parts in sufficient quantities to meet possible demand may cause delays in securing products or could force us to seek alternative suppliers. The need to locate and use alternative suppliers could also cause delivery delays for a period of time. With respect to our animal health products, we, including our partner, Novartis Animal Health, have entered into contracts with companies who meet full cGMP requirements and are capable of large scale manufacturing batches of our devices and recombinant drugs for development, initial batch and study work as part of the FDA approval process for our business. Delays in finalizing and progressing under agreement with the cGMP facility may delay our FDA approval process and potentially delay sales of such products. In addition, we may encounter difficulties in production due to, among other things, the inability to obtain sufficient amounts of raw inventory, quality control, quality assurance and component supply. These difficulties could reduce sales of our products, increase our costs, or cause production delays, all of which could damage our reputation and hurt our financial condition. To the extent that we enter into manufacturing arrangements with third parties, we will depend on them to perform their obligations in a timely manner and in accordance with applicable government regulations.

Our results of operations could be affected by our royalty payments due to third parties.

Any revenues from products under development will likely be subject to royalty payments under licensing or similar agreements. Major factors affecting these payments include but are not limited to:

- Our ability to achieve meaningful sales of our products;
- Our use of the intellectual property licensed in developing the products;
- Coverage decisions by governmental and other third-party payors; and
- The achievement of milestones established in our license agreements.

If we need to seek additional intellectual property licenses in order to complete our product development, our cumulative royalty obligations could adversely affect our net revenues and results of operations.

Our success depends on our ability to develop and commercialize new products.

Our success depends on our ability to successfully develop new products. Although we are engaged in human diagnostic antigen manufacturing operations and historically substantially all of our revenues have been derived from this business, our ability to substantially increase our revenues and generate net income is contingent on successfully developing one or more of our pipeline products. Our ability to develop any of the pipeline products is dependent on a number of factors, including funding availability to complete development efforts, to adequately test and refine products, to seek required FDA approval, and to commercialize our products, thereby generating revenues once development efforts prove successful. We have encountered in the past, and may again encounter in the future, problems in the testing phase for different pipeline products, which sometimes resulted in substantial setbacks in the development process. There can be no assurance that we will not encounter similar setbacks with the products in our pipeline, or that funding from outside sources and our revenues will be sufficient to bring any or all of our pipeline products to the point of commercialization. There can be no assurance that the products we are developing will work effectively in the marketplace, nor that we will be able to produce them on an economical basis.

Our success will depend in part on establishing and maintaining effective strategic partnerships and business relationships.

A key aspect of our business strategy is to establish and maintain strategic partnerships. We currently have a license arrangement with Washington University (St. Louis, MO), and a long term exclusive license and commercialization agreement with Novartis Animal Health, Inc. It is likely that we will seek other strategic alliances. We also intend to rely heavily on companies with greater capital resources and marketing expertise to market some of our products, such as our agreement with Novartis Animal Health. We are currently evaluating study results from a pilot study conducted under the Novartis License Agreement; the results of that evaluation could impact the future activities under the Novartis License Agreement. While we have identified certain possible candidates for other potential products, we may not reach definitive agreements with any of them. Even if we enter into these arrangements, we may not be able to maintain these collaborations or establish new collaborations in the future on acceptable terms. Furthermore, future arrangements may require us to grant certain rights to third parties, including exclusive marketing rights to one or more products, or may have other terms that are burdensome to us, and may involve the issuance of our securities. Our partners may decide to develop alternative technologies either on their own or in collaboration with others. If any of our partners terminate their relationship with us or fail to perform their obligations in a timely manner, or if we fail to perform our obligations in a timely manner, the development or commercialization of our technology in potential products may be affected, delayed or terminated.

We need to protect our intellectual property rights.

Our success will partially depend on our ability to obtain and enforce patents relating to our technology and processes and to protect our trade secrets. Third parties may challenge, narrow, invalidate or circumvent our patents and processes and / or demand payments of royalties that would impact our product costs. The patent position of biotechnology companies is generally highly uncertain, involves complex legal and factual questions and has recently been the subject of much litigation. Neither the U.S. Patent Office nor the courts have a consistent policy regarding breadth of claims allowed or the degree of protection afforded under many biotechnology patents.

In an effort to protect our proprietary technology, trade secrets and know-how, we require our employees, consultants and prospective partners to execute confidentiality and invention disclosure agreements. However, these agreements may not provide us with adequate protection against improper use or disclosure of confidential information. These agreements may be breached, and we may not have adequate remedies for any such breach. In addition, in some situations, these agreements may conflict, or be subject to, the rights of third parties with whom our employees or consultants have previous employment or consulting relationships. Also, others may independently develop substantial proprietary information and techniques or otherwise gain access to our trade secrets. We intend to market our products in many different countries but in some of these countries we will not seek or have patents protection. Different countries have different patent rules and we may sell in countries that do not honor patents and in which the risk that our products could be copied would be greater.

If we fail to obtain regulatory approval in foreign jurisdictions, then we cannot market our products in those jurisdictions.

We plan to market some of our products in foreign jurisdictions. Specifically, we expect that AppyScore will be aggressively marketed in foreign jurisdictions. We may market our therapeutic animal health products in foreign jurisdictions, as well. We may need to obtain regulatory approval from the European Union or other foreign jurisdictions to do so and obtaining approval in one jurisdiction does not necessarily guarantee approval in another. We may be required to conduct additional testing or provide additional information, resulting in additional expenses, to obtain necessary approvals. If we fail to obtain approval in such foreign jurisdictions, we would not be able to sell our products in such jurisdictions, thereby reducing the potential revenue from the sale of our products.

We may be unable to retain key employees or recruit additional qualified personnel.

Because of the specialized scientific nature of our business, we are highly dependent upon qualified scientific, technical, and managerial personnel. There is intense competition for qualified personnel in our business. A loss of the services of our qualified personnel, as well as the failure to recruit additional key scientific, technical and managerial personnel in a timely manner would harm our development programs and our business.

Our product liability insurance coverage may not be sufficient to cover claims.

Our insurance policies currently cover claims and liabilities arising out of defective products for losses up to $2 million. As a result, if a claim was to be successfully brought against us, we may not have sufficient insurance that would apply and would have to pay any costs directly, which we may not have the resources to do.

Risks Related to Our Securities

While our common stock currently trades on the NASDAQ Capital Markets Exchange, our share price is below NASDAQ's $1.00 minimum bid price rule which could subject our shares to de-listing.

On August 27, 2010, the Company was notified by NASDAQ that the Company did not meet the minimum bid price rule required for continued listing and was provided until February 23, 2011 to achieve compliance with such minimum bid rule. NASDAQ, by letter dated February 24, 2011, granted our request to extend such compliance period and remain listed on the NASDAQ Capital Market to regain compliance with NASDAQ's $1.00 minimum bid price rule, Listing Rule 5550(a)(2). If at any time before August 22, 2011, the bid price of our common stock closes at $1.00 per share or more for a minimum of 10 consecutive trading days (subject to extension to 20 trading days in NASDAQ's discretion), we will regain compliance with the bid price rule. We may seek shareholder approval of a reverse stock split transaction to help achieve such compliance. If we do not regain compliance by the end of this second grace period, we anticipate we will receive notification from NASDAQ that our common stock is subject to delisting. At that time we may then appeal the delisting determination to a Hearings Panel. Such notification will have no immediate effect on our listing on the NASDAQ Capital Market nor on the trading of our common stock pending such hearing. There can be no assurance, however, that we will be able to regain compliance with NASDAQ's minimum bid price per share requirement for continued listing on the NASDAQ Capital Market. Being delisted by NASDAQ could have a negative impact on our ability to raise capital among other considerations.

We may require additional capital in the future and we cannot assure you that capital will be available on reasonable terms, if at all, or on terms that would not cause substantial dilution to our existing stockholders.

We have historically needed to raise capital to fund our operating losses. We expect to continue to incur operating losses in the 2011 calendar year and possibly longer. If capital requirements vary materially from those currently planned, we may require additional capital sooner than expected. There can be no assurance that such capital will be available in sufficient amounts or on terms acceptable to us, if at all, especially in light of the state of the current financial markets which could impact the timing, terms and other factors in our attempts to raise capital. Any sale of a substantial number of additional shares may cause dilution to our existing stockholders and could also cause the market price of our common stock to decline.

Current challenges in the commercial and credit environment may adversely affect our business and financial condition.

The global financial markets have recently experienced unprecedented levels of volatility. Our ability to generate cash flows from operations, issue debt or enter into other financing arrangements on acceptable terms could be adversely affected if there is a material decline in the demand for the Company's products or in the solvency of its customers or suppliers, deterioration in the Company's key financial ratios or credit ratings, or other significantly unfavorable changes in conditions. While these conditions and the current economic downturn have not meaningfully adversely affected our operations to date, continuing volatility in the global financial markets could increase borrowing costs or affect the company's ability to access the capital markets. Current or worsening economic conditions may also adversely affect the business of our customers, including their ability to pay for our products and services, and the amount spent on healthcare generally. This could result in a decrease in the demand for our potential products and services, longer sales cycles, slower adoption of new technologies and increased price competition. These conditions may also adversely affect certain of our suppliers, which could cause a disruption in our ability to produce our products.

We do not anticipate paying any dividends in the foreseeable future.

The Company does not intend to declare any dividends in the foreseeable future. Investors who require income from dividends should not purchase our securities.

Our stock price, like that of many biotechnology companies, is volatile.

The market prices for securities of biotechnology companies in general have been highly volatile and may continue to be highly volatile in the future, particularly in light of the current financial markets. In addition, the market price of our Common Stock has been and may continue to be volatile, especially on the eve of Company announcements which the market is expecting, as is the case with clinical trial results. Among other factors, the following may have a significant effect on the market price of our Common Stock:

- Announcements of clinical trial results, FDA correspondence, technological innovations or new commercial products by us or our competitors.
- Publicity regarding actual or potential medical results related to products under development or being commercialized by us or our competitors.
- Regulatory developments or delays affecting our products under development in the U.S. and other countries.
- New proposals to change or reform the U.S. healthcare system, including, but not limited to, new regulations concerning reimbursement programs.

ITEM 1B. UNRESOLVED STAFF COMMENTS.

None.

ITEM 2. PROPERTIES.

We maintain our administrative office, laboratory and production operations in a 40,000 square foot building in Castle Rock, Colorado, which was constructed for us in 2003. We presently do not plan any renovation, improvements, or development of this property. We may utilize a portion of the currently un-used space, which amounts to approximately 14,000 square feet for expansion at some point in the future. The Company believes that its facilities are adequate for its near-term needs.

We own the property subject to a mortgage with an outstanding balance of approximately $2,654,000 at December 31, 2010, payable in monthly installments of approximately $23,700 and bearing interest at an approximate average rate of 7%. In the opinion of management, the Company maintains adequate insurance coverage on the property.

ITEM 3. LEGAL PROCEEDINGS.

On September 1, 2010, the Company received a complaint, captioned *Mark Chipman v. AspenBio Pharma, Inc.*, Case No. 2:10-cv-06537-GW -JC. The complaint was filed in the United States District Court in the Central District of California by an individual investor. The complaint includes allegations of fraud, negligent misrepresentation, violations of Section 10(b) of the Securities Exchange Act of 1934 ("Exchange Act") and Securities and Exchange Commission ("SEC") Rule 10b-5, and violations of Sections 25400 and 25500 of the California Corporations Code, all related to the Company's blood-based acute appendicitis test in development known as AppyScore. The Company is evaluating the complaint, believes that the allegations in the complaint are without merit, and intends to vigorously defend against these claims. The Company has filed a motion to dismiss the complaint and a motion to strike certain allegations, which are pending. On the Company's motion, the action was transferred to the U.S. District Court for the District of Colorado by order dated January 21, 2011. The action has been assigned a District of Colorado Civil Case No. 11-cv-00163-REB-KMT.

On October 1, 2010, the Company received a complaint, captioned *John Wolfe, individually and on behalf of all others similarly situated v. AspenBio Pharma, Inc. et al.*, Case No. CV10 7365. This federal securities purported class action was filed in the United States District Court in the Central District of California on behalf of all persons, other than the defendants, who purchased common stock of AspenBio Pharma, Inc. during the period between February 22, 2007 and July 19, 2010, inclusive. The complaint names as defendants certain officers and directors of the Company during such period. The complaint includes allegations of violations of Section 10(b) of the Exchange Act and SEC Rule 10b-5 against all defendants, and of Section 20(a) of the Exchange Act against the individual defendants, all related to the Company's blood-based acute appendicitis test in development known as AppyScore. The Company and the individual defendants are evaluating the complaint, believe that the allegations in the complaint are without merit, and intend to vigorously defend against these claims. Although the Company has filed a motion to dismiss the complaint, no lead plaintiff has yet been appointed as is required under the Private Securities Litigation Reform Act for this action to proceed. This action was also transferred to the U.S. District Court for the District of Colorado by order dated January 21, 2011. The action has been assigned a District of Colorado Civil Case No. 11-cv-00165-REB-KMT.

On January 4, 2011, a plaintiff filed a complaint in the U.S. District Court for the District of Colorado captioned *Frank Trpisovsky v. Pusey, et al.*, Civil Action No. 11-cv-00023-PAB-BNB, that purports to be a shareholder derivative action on behalf of the Company against thirteen individual current or former officers and directors. The complaint also names the Company as a nominal defendant. The plaintiff asserts violations of Section 14(a) of the Exchange Act, SEC Rule 14a-9, breach of fiduciary duty, waste of corporate assets, and unjust enrichment. On motion of the Company and the individual defendants, the U.S. District Court has stayed this derivative action by order dated March 15, 2011. The Company believes that the plaintiff lacks standing to proceed with this action and intends to challenge the plaintiff's standing if and when the stay is lifted.

We are not a party to any other legal proceedings, the adverse outcome of which would, in our management's opinion, have a material adverse effect on our business, financial condition and results of operations.

ITEM 4. [RESERVED].

PART II

ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES.

Market Information

Our common stock began trading on the Nasdaq Capital Market under the symbol "APPY" as of August 28, 2007. The following table sets forth, for the periods indicated, the high and low closing prices of our shares, as reported by Nasdaq.com.

Quarter ended	High	Low
March 31, 2009	$ 7.63	$ 1.29
June 30, 2009	$ 2.67	$ 1.53
September 30, 2009	$ 2.91	$ 1.98
December 31, 2009	$ 2.16	$ 1.39
March 31, 2010	$ 2.37	$ 1.91
June 30, 2010	$ 4.64	$ 0.95
September 30, 2010	$ 1.12	$ 0.49
December 31, 2010	$ 0.71	$ 0.32

As of April 11, 2011 we had approximately 952 holders of record (excluding an indeterminable number of stockholders whose shares are held in street or "nominee" name) of our common stock.

The closing price of our common stock on April 11, 2011 was $0.70 per share.

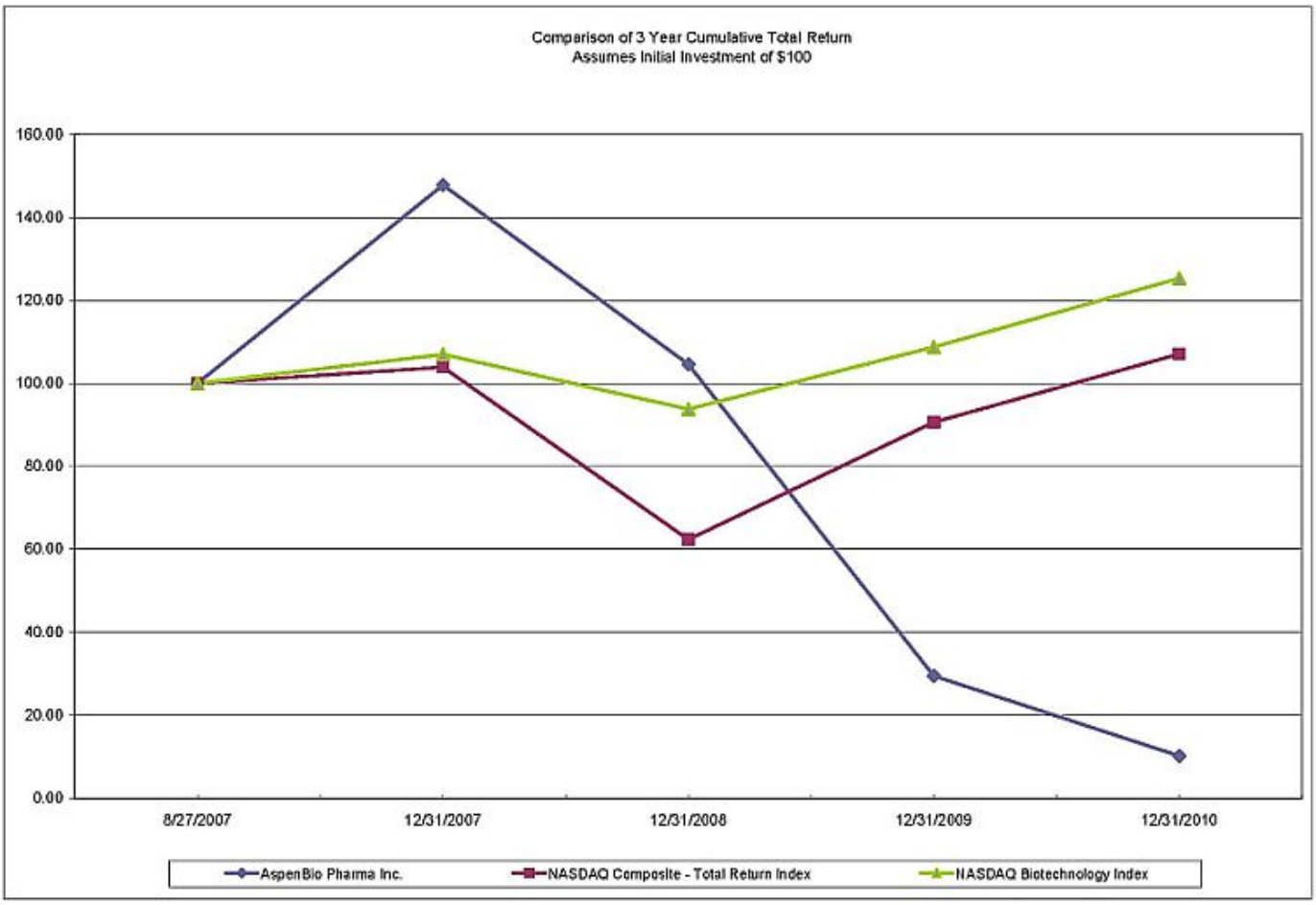
During the last two fiscal years we have not paid any dividend on any class of equity securities. We anticipate that for the foreseeable future all earnings will be retained for use in our business and no cash dividends will be paid to stockholders. Any payment of cash dividends in the future on the Common Stock will be dependent upon our financial condition, results of operations, current and anticipated cash requirements, plans for expansion, as well as other factors that the Board of Directors deems relevant.

STOCK PERFORMANCE GRAPH

The performance graph set forth below shall not be deemed "soliciting material" or "filed" for purposes of Section 18 of the Securities Exchange Act of 1934 (the Exchange Act), or otherwise subject to liability under that Section. This graph will not be deemed "incorporated by reference" into any filing under the Securities Act of 1933 or the Exchange Act, whether such filing occurs before or after the date hereof, regardless of any general incorporation language in such filing.

The following graph compares the cumulative total returns to investors in the Company's Common Stock, the NASDAQ Composite Index and the NASDAQ Biotechnology Index for the period from August 27, 2007 (when the Company was first listed for trading on NASDAQ) through December 31, 2010. The graph assumes that $100 was invested on August 27, 2007 in the Company's Common Stock and in each of the above-mentioned indices, and that all dividends, if any, were reinvested.

The NASDAQ Composite Index was chosen because it is a broad index of companies whose equity securities are traded on the NASDAQ Stock Market. The NASDAQ Biotechnology Index was chosen because it is a published line of business index that includes a number of our competitors. Stockholders are cautioned that the graph shows the returns to investors only as of the dates noted and may not be representative of the returns for any other past or future period.


Comparison of 3 Year Cumulative Total Return
Assumes Initial Investment of $100
160.00
140.00
120.00
100.00
80.00
60.00
40.00
20.00
0.00
8/27/2007
12/31/2007
12/31/2008
12/31/2009
12/31/2010
AspenBio Pharma Inc.
NASDAQ Composite - Total Return Index
NASDAQ Biotechnology Index

Securities Authorized Under Equity Compensation Plans Information

The Company currently has one equity compensation plan. The 2002 Stock Incentive Plan (the Plan) was approved by the board of directors and adopted by the stockholders on May 20, 2002. At our annual meeting of stockholders held on June 9, 2008 our stockholders approved an amendment to the Plan increasing the number of shares reserved under the Plan to 4,600,000. On November 20, 2009, the Company's stockholders approved an amendment to the Plan to increase the number of shares reserved under the Plan to 6,100,000. On November 22, 2010, the Company's stockholders approved an amendment to the Plan to increase the number of shares reserved under the Plan to 6,800,000.

The following table gives information about the Company's Common Stock that may be issued upon the exercise of options and rights under the Company's compensation plan as of December 31, 2010.

Plan Category	Number of securities to be issued upon exercise of outstanding options	Weighted average exercise price of outstanding options	Number of securities remaining available for future issuance
Equity compensation plans approved by security holders	5,516,789	$ 2.12	1,022,168
Equity compensation plans not approved by security holders	—	—	—
Total	5,516,789	$ 2.12	1,022,789

Recent Sales of Unregistered Securities

None.

Purchases of Equity Securities by the Issuer and Affiliated Purchasers.

During the year ended December 31, 2010 covered by this report, the Company did not make any purchases of its common shares under the previously announced 2008 authorized common stock repurchase program of up to $5 million that may be made from time to time at prevailing prices as permitted by securities laws and other requirements, and subject to market conditions and other factors and no purchases are anticipated in the near-term. No repurchases have been made under this program since 2008. The program is administered by management and may be discontinued at any time.

ITEM 6. SELECTED FINANCIAL DATA.

	For the Fiscal Years Ended December 31,				
	2010	2009	2008	2007	2006
Summary Statement of Operations Items:					
Total revenues	$ 370,000	$ 291,000	$ 821,000	$ 849,000	$ 1,140,000
Net loss	$ (13,338,000)	$ (15,518,000)	$ (9,568,000)	$ (6,201,000)	$ (3,109,000)
Basic and diluted loss per share	$ (0.34)	$ (0.47)	$ (0.31)	$ (0.24)	$ (0.18)
Weighted average shares outstanding	39,247,604	33,169,172	31,172,862	26,178,365	17,400,327

	As of December 31,				
	2010	2009	2008	2007	2006
Summary Balance Sheet Information:					
Current assets	$ 12,307,000	$ 14,427,000	$ 18,871,000	$ 26,695,000	$ 4,305,000
Total assets	$ 17,159,000	$ 19,378,000	$ 24,187,000	$ 31,662,000	$ 8,748,000
Long term liabilities	$ 3,180,000	$ 3,290,000	$ 3,553,000	$ 3,053,000	$ 3,623,000
Total liabilities	$ 5,912,000	$ 6,564,000	$ 6,299,000	$ 5,158,000	$ 4,323,000
Equity	$ 11,247,000	$ 12,814,000	$ 17,888,000	$ 26,504,000	$ 4,425,000

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATION.

The discussion and analysis below includes certain forward-looking statements that are subject to risks, uncertainties and other factors, as described in “Risk Factors” and elsewhere in this Annual Report on Form 10-K, that could cause our actual growth, results of operations, performance, financial position and business prospects and opportunities for this fiscal year and the periods that follow to differ materially from those expressed in, or implied by, those forward-looking statements.

RESULTS OF OPERATIONS

Revenues

Year 2010 compared to Year 2009

Sales of the Company’s antigen products for the year ended December 31, 2010 totaled $370,000, which is a $79,000 or 27% increase from the 2009 period. Four customers accounted for $215,000 of the total 2010 sales and individually represented 10%, 11%, 18% and 19% of such sales. This increase in sales is primarily attributable to the timing of customer orders as they purchased on-hand stock of inventory. In late 2009, the Company made a strategic decision to suspend antigen production and focus available scientific resources on the acute appendicitis project and single-chain animal product development. Antigen sales in 2011 are expected to decline significantly from the 2010 totals.

In April 2008, the Company entered into a long term exclusive license and commercialization agreement with Novartis to develop and launch the Company’s novel recombinant single-chain products for bovine species. The total payments received under this agreement were recorded as deferred revenue and are being recognized over future periods through 2020, with $68,000 and $64,000 of such license fee recognized in each of years ended December 31, 2010 and 2009, respectively.

Cost of sales for the year ended December 31, 2010 totaled $358,000, which is a $352,000 or 50% decrease as compared to the 2009 period. As a percentage of sales, 2010 gross profit was 3% as compared to a gross loss of 144% in 2009. The net decrease in cost of sales is the result of inventory write-downs in 2009 totaling $400,000 compared to write-downs in 2010 totaling $153,000 as well as the allocation of certain fixed overhead production costs to cost of sales in 2009 which were not allocated in the 2010 period as no production runs of antigen products were made in 2010.

Year 2009 compared to Year 2008

Sales generated primarily from the Company’s base antigen business for the year ended December 31, 2009 totaled $291,000, which is a $531,000, or 65%, decrease from the year ended December 31, 2008. Two customers accounted for $105,000 of the total 2009 sales and individually represented 17% and 20% of such sales. This decrease was due to general economic conditions combined with the fact that the Company began focusing its efforts primarily on the development of other products, primarily the AppyScore test. License fees of $214,000 were recognized in 2009 with $64,000 recognized under the long term exclusive license and commercialization agreement for the Company’s novel recombinant single-chain bovine products and $150,000 recognized as a result of the termination of the license agreement with Merial Limited.

Cost of sales for the year ended December 31, 2009 totaled $710,000, which is a $129,000, or 22%, increase from the year ended December 31, 2008. The increase in cost of sales was due to a combination that included a write down of inventory costs in 2009 of approximately $400,000 associated with the antigen products and certain fixed overhead costs associated with antigen production that were not covered with the lower sales levels. As a percentage of sales, there was a gross loss of 144% in the 2009 period as compared to a gross profit of 29% in the 2008 period. The change in the gross margin percent resulted from the lower level of sales in 2009 combined with the inventory write down and certain fixed overhead costs.

Selling, General and Administrative Expenses

Year 2010 compared to Year 2009

Selling, general and administrative expenses in the year ended December 31, 2010, totaled $7,511,000, which is an $880,000 or 13% increase as compared to the 2009 period. Hiring of additional management personnel to advance the AppyScore™ product resulted in approximately $329,000 of additional expenses in the 2010 period. Approximately $631,000 in additional stock-based compensation expense was recorded in 2010 over 2009 amounts which included $106,000 related to options granted to animal health advisory board members. Selling, general and administrative expenses also increased by $213,000 in insurance related costs primarily due to increased medical benefits costs and increases in the Company’s insurance limits. Amortization expenses during the 2010 period decreased by $510,000 as compared to 2009 amounts which included impairment charges for patents related to terminating an agreement with Merial Limited and management’s decision to not pursue patents specific to certain small market countries.

Year 2009 compared to Year 2008

Selling, general and administrative expenses in the year ended December 31, 2009, totaled $6,631,000, which is a $2,197,000, or 50%, increase as compared to the 2008 period. During late 2008 and continuing in 2009, the Company increased its overhead costs to support advancing the AppyScore test in clinical trials and associated efforts to advance clearance of the test through the FDA and to support its development activities and advance its licensing activities and negotiations for the single-chain animal products. The hiring of additional personnel resulted in approximately $1,223,000 of additional expenses in 2009, which included approximately $331,000 in additional employee related stock-based compensation expense in 2009 over 2008 amounts. Additionally, selling, general and administrative expenses increased by $565,000 due to the impairment recorded for patents related to terminating an agreement with Merial Limited and management's decision to not pursue patents specific to certain small market countries.

Research and Development

Year 2010 compared to Year 2009

Research and development expenses in the 2010 period totaled $6,019,000, which is a $2,694,000 or 31% decrease as compared to the 2009 period. Development efforts and advances on the acute appendicitis test, including product development advances, clinical trial and regulatory related activities comprised the primary expenses. Clinical trial and regulatory related expenses were approximately $1,130,000 lower in the year ended December 31, 2010 primarily due to the fact that in 2009 one AppyScore clinical trial was completed and a second clinical trial that commenced in the second half of 2009 was completed in early 2010. Development expenses incurred for advances on the cassette and reader program were approximately $1,448,000 lower in 2010 as compared to 2009, primarily due to substantial completion of development activities by the firms engaged in product development. Expenses incurred in connection with product and market related studies were approximately $340,000 lower in 2010 as compared to 2009. Hiring of additional scientific personnel for product development resulted in approximately $103,000 of additional expenses in the 2010 period. Direct development expenses on the single-chain animal health products increased by approximately $41,000 in the 2010 period.

Year 2009 compared to Year 2008

Research and development expenses in 2009 totaled $8,714,000, which is a $2,688,000, or 45%, increase compared to 2008. Direct development expenses on the acute appendicitis test, including product development advances, clinical trials, FDA clearance related activities and contracted services resulted in total expenses of $6,290,000 in 2009, an increase of approximately $1,845,000 over 2008. In addition, development expenses on the single-chain animal drug products totaled approximately $1,127,000 in 2009, an increase of approximately $632,000 over 2008, as the bovine products continued to advance in development primarily related to advancement made through our licensing agreement with Novartis Animal Health. Additions to research staff, including temporary contract personnel, to support accelerating development efforts, increased expenses by approximately $220,000 in 2009.

Interest Income and Expense

Year 2010 compared to Year 2009

Primarily as a result of lower average cash and investment balances in 2010 as compared to 2009, interest income of approximately $62,000 was earned in 2010 as compared to $189,000 in 2009. Interest expense for the year ended December 31, 2010, decreased to $194,000, or $6,000 less as compared to the 2009 year. The decrease was primarily due to lower debt levels resulting from scheduled principal repayments.

Year 2009 compared to Year 2008

Interest income for the year ended December 31, 2009, decreased to $189,000, which is a $557,000 decrease as compared to the $746,000 earned in 2008. The decrease in interest income was primarily due to lower levels of investable cash and reduced return rates. Interest expense for the year ended December 31, 2009, decreased to $200,000, or $28,000 less as compared to the 2008 year. The decrease was primarily due to lower debt levels resulting from scheduled principal repayments.

Income Taxes

No income tax benefit was recorded on the loss for the year ended December 31, 2010, as management of the Company was unable to determine that it was more likely than not that such benefit would be realized. At December 31, 2010, the Company had a net operating loss carry forwards for income tax purposes of approximately $52 million, expiring through 2030.

LIQUIDITY AND CAPITAL RESOURCES

At December 31, 2010, we had working capital of $9,575,000, which included cash, cash equivalents and short term investments of $11,840,000. We reported a net loss of $13,338,000 during the year ended December 31, 2010, which included $3,048,000 in non-cash expenses relating to stock-based compensation totaling $2,364,000 and depreciation and amortization totaling $492,000 and other items net, which totaled $39,000. In late 2009, we substantially suspended the production of antigen products as a result of our strategic decision to focus available scientific resources on acute appendicitis and single-chain animal product development. As a result of this decision we recorded a write down of approximately $153,000 in antigen inventories in 2010. Antigen sales in 2011 are expected to decline significantly from the 2010 totals.

Currently, our primary focus is to continue the development activities on our acute appendicitis diagnostic test, including advancement of such test with the FDA, and development of animal health single-chain products to attempt to secure near-term value from these products.

Capital expenditures, primarily for production, laboratory and facility improvement costs for the fiscal year ending December 31, 2011 are anticipated to total $200,000 to $400,000. We anticipate these capital expenditures to be financed through working capital.

We anticipate that expenditures for research and development for the fiscal year ending December 31, 2011 will in total be higher as compared to the amounts expended in 2010, primarily due to expected work on pre-clinical and clinical trials net of lower AppyScore product development expenses. Development and testing costs in support of the current pipeline products as well as costs to file patents and revise and update previous filings on our technologies will continue to be substantial. Our principal development products consist of the AppyScore test and the single-chain animal-health hormone products. As we continue towards commercialization of these products, including evaluation of alternatives for possible product management and distribution alternatives and implications of product manufacturing and associated carrying costs such evaluation and related decisions will impact our future capital needs. Certain costs such as manufacturing and license / royalty agreements have different financial, logistical and operational implications depending upon the ultimate strategic commercialization path determined.

We expect that our primary development expenditures will be to continue to advance development and testing of the cassette and instrument version of AppyScore. During the years ended December 31, 2010, 2009, and 2008 we expended approximately $3,371,000 and $6,290,000, and $4,446,000 respectively in direct costs for the acute appendicitis test development and related efforts. Steps to achieve commercialization of the acute appendicitis product will be an ongoing and evolving process with subsequent generations and expected improvements being made in the test. Should we be unable to achieve FDA clearance of the AppyScore test and generate revenues from the product, we would need to rely on other product opportunities to generate revenues and costs that we have incurred for the acute appendicitis patent may be deemed impaired.

In April 2008, the Company entered into a long-term exclusive license and commercialization agreement with Novartis Animal Health, Inc., to develop and launch the Company's novel recombinant single-chain products for use in bovines, BoviPure LH™ and BoviPure FSH™. The Exclusive License Agreement between AspenBio and Novartis was entered into effective April 2, 2008, and grants Novartis a license to AspenBio technology and a sublicense to The Washington University (WU) technology (each as defined under the Novartis License Agreement) for use in bovine species products worldwide. The term of the Novartis License Agreement continues until the expiration of the last-to-expire of the licensed patent rights, product sales are terminated, or, generally, ten years after the initial product sales if licensed patent rights are not available on a country-by-country basis. The Novartis License Agreement provides that Novartis and AspenBio share development expenses and product sales margins under a splitting arrangement. AspenBio's share of development expenses is in the low double-digit range. AspenBio's share of the product sales margins varies depending upon the level of patent protection and competition on a country-by-country basis and varies from the very low to low double-digit range.

AspenBio received an upfront cash payment of $2,000,000 under the Novartis License Agreement, of which 50% was non-refundable upon signing the agreement, and the balance subject to certain conditions. In 2010 the conditions associated with $100,000 of such milestones were satisfied. Novartis has the right to request a refund of the $900,000 remaining milestone payment and/or terminate the agreement if the pilot study (as defined in the agreement) is not successful. This pilot study was completed during late 2010. NAH has informed us that preliminary pilot study results revealed failure of the pilot study to demonstrate the outcomes as defined in the success criteria, and NAH has requested a refund of the $900,000 milestone payment. We recently received the final, detailed report of the pilot study from NAH and are in the process of reviewing it. NAH has indicated that they would defer the refund request until we have had an opportunity to review the final report. We plan to work with NAH to obtain additional information and understand the implications of the pilot study results on product development efforts under the Novartis License Agreement.

The Novartis License Agreement contains customary terms for confidentiality, prosecution and infringement provisions for the license patent rights, indemnification and insurance coverage. The Novartis License Agreement is cancelable by Novartis on 180 days advance notice; immediately if a change in control transaction occurs and Novartis' rights are not accommodated in good faith by the successor entity; or on 30 days notice on a country-by-country basis in the event designated legal or regulatory issues arise. AspenBio can terminate the agreement immediately if Novartis challenges the validity or enforceability of licensed patent rights or other licensed intellectual property. Either party may terminate if the other party materially breaches the Novartis License Agreement, and fails to cure such breach, becomes insolvent or if either party disposes of substantially all of the assets necessary for its performance under the terms of the agreement. In the event there is a change of ownership in AspenBio, Novartis may choose to assume all obligations under the agreement and generally remit net excess royalty amounts to the successor entity.

In 2004, the Company entered into an agreement with WU, under which the Company obtained exclusive proprietary rights to WU's patent portfolio for use in the animal health industry. The Exclusive License Agreement (WU License Agreement) between AspenBio and WU was entered into effective May 1, 2004, and grants AspenBio an exclusive license and right to sublicense WU's technology (as defined under the WU License Agreement) for veterinary products worldwide, except where such products are prohibited for export under U.S. laws. The term of the WU License Agreement continues until the expiration of the last of WU's patents (as defined in the WU License Agreement) to expire. AspenBio has agreed to pay minimum annual royalties of $20,000 during the term of the WU License Agreement and such amounts are creditable against future royalties. Royalties payable to WU under the WU License Agreement for covered product sales by AspenBio carry a mid-single digit royalty rate and for sublicense fees received by AspenBio carry a low double-digit royalty rate. The WU License Agreement contains customary terms for confidentiality, prosecution and infringement provisions for licensed patents, publication rights, indemnification and insurance coverage. The WU License Agreement is cancelable by AspenBio with ninety days advance notice at any time and by WU with sixty days advance notice if AspenBio materially breaches the WU License Agreement and fails to cure such breach. Under the terms of the WU License Agreement, a portion of license fees and royalties AspenBio receives from sublicensing agreements will be paid to WU. The obligation for such front end fees, totaling $440,000, was recorded upon receipt of the Novartis license fees and in 2008, $190,000 was paid to WU and the remaining $200,000, net of ongoing minimum annually royalty payments, is included with accrued expenses on the accompanying balance sheet.

For financial reporting purposes, the up-front license fees received from the Novartis License Agreement, net of the amounts due to WU, have been recorded as deferred revenue and are amortized over the term of the Novartis License Agreement. Milestone revenue is or will be recognized into income commencing with the date such milestones are achieved. During the year ended December 31, 2010, milestones totaling $100,000 associated with Novartis' evaluation of additional products were achieved, triggering the commencement of amortization of $100,000 of deferred revenue. As of December 31, 2010, deferred revenue of $746,062 has been classified as a current liability and $633,636 has been classified as a long-term liability. The current liability includes the remaining milestone revenue that is subject to achievement conditions and also includes the next twelve months' portion of the amortizable milestone revenue. During each of the years ended December 31, 2010, 2009, and 2008, $68,394, $63,947, and $ 47,960, respectively, was recorded as the amortized license fee revenue arising from the Novartis License Agreement.

We have entered and expect to continue to enter into additional agreements with contract manufacturers for the development / manufacture of certain of our products for which we are seeking FDA approval. The goal of this development process is to establish current good manufacturing practices (cGMP) required for those products for which we are seeking FDA approval. These development and manufacturing agreements generally contain transfer fees and possible penalty and /or royalty provisions should we transfer our products to another contract manufacturer. We expect to continue to evaluate, negotiate and execute additional and expanded development and manufacturing agreements, some of which may be significant commitments during 2011. We may also consider acquisitions of development technologies or products, should opportunities arise that we believe fit our business strategy and would be appropriate from a capital standpoint.

The Company periodically enters into generally short term consulting and development agreements primarily for product development, testing services and in connection with clinical trials conducted as part of the Company's FDA clearance process. Such commitments at any point in time may be significant but the agreements typically contain cancellation provisions.

We have a permanent mortgage facility on our land and building that commenced in July 2003. The mortgage is held by a commercial bank and includes a portion guaranteed by the U. S. Small Business Administration. The loan is collateralized by the real property and is also personally guaranteed by a stockholder (our former president). The interest rate on the bank portion is one percentage over the Wall Street Journal Prime Rate (minimum 7%), with 7% being the approximate effective rate for 2010 and 2009, and the SBA portion bears interest at the rate of 5.86%. The commercial bank portion of the loan requires total monthly payments of approximately $14,200, which includes approximately $10,500 per month in contractual interest, through June 2013 when the then remaining principal balance is due which is estimated to be approximately $1,587,000 at that time. The SBA portion of the loan requires total monthly payments of approximately $9,200 through July 2023, which includes approximately $4,600 per month in contractual interest and fees.

In 2010, the Company was awarded and received a grant of approximately $244,000 from the U.S. Department of Treasury, under the qualifying therapeutic discovery project under Section 48D of the Internal Revenue Code. The amount is included in other income on the accompanying Statement of Operations

In May 2010, the Company completed a registered direct offering of securities consisting of 2,409,639 units (Units) for a negotiated price of $4.15 per Unit, generating approximately $9,117,000 in net proceeds to the Company. Fees and expenses totaled $883,000, including a placement fee of 6.5%. Each Unit consisted of one share of the Company's no par value common stock and one warrant to purchase 0.285 shares of common stock. Accordingly, a total of 2,409,639 shares of common stock and warrants to purchase 686,746 shares of common stock were issued. The exercise price of the warrants was $4.82 per share, the warrants were exercisable upon issuance for an eight month term and expired in January 2011.

During the year ended December 31, 2010, we received cash proceeds of $291,000 from the exercise of 261,043 options to purchase shares of common stock.

In April 2008 the Board authorized a stock repurchase plan to purchase shares of our common stock up to a maximum of $5.0 million. Purchases may be made in routine, open market transactions, when management determines to effect purchases and any purchased shares of common stock are thereupon retired. Management may elect to purchase less than $5.0 million. The repurchase program allows us to repurchase our shares in accordance with the requirements of the Securities and Exchange Commission on the open market, in block trades and in privately negotiated transactions, depending upon market conditions and other factors. The repurchase program is funded using our working capital. A total of approximately 232,000 common shares were purchased and retired in 2008 at a total cost of approximately $992,000. No repurchases have been made since 2008.

We expect to continue to incur losses from operations for the near-term and these losses could be significant as we incur product development, contract consulting and product related expenses. We have also increased our overhead expenses with the hiring of additional management and scientific personnel. We believe that our current working capital position will be sufficient to meet our near-term needs. Our investments are maintained in relatively short term, high quality investments instruments, to ensure we have ready access to cash as needed.

With the recent changes in market conditions, combined with our conservative investment policy and lower average investable balances due to cash consumption, we expect that our investment earnings in 2011 will be lower than in 2010. The Board of Directors has approved an investment policy covering the investment parameters to be followed with the primary goals being the safety of principal amounts and maintaining liquidity of the fund. The policy provides for minimum investment rating requirements as well as limitations on investment duration and concentrations. Commencing in the fourth quarter of 2008, based upon market conditions, the investment guidelines were tightened to raise the minimum acceptable investment ratings required for investments and shorten the maximum investment term. Current investment guidelines require investments to be made in investments with minimum ratings purchasing commercial paper with an A1/P1 rating, longer-term bonds with an A- rating or better, a maximum maturity of nine months and a concentration guideline of 10% (no security or issuer representing more than 10% of the portfolio). As of December 31, 2010, 72% of the investment portfolio was in cash equivalents which are included with cash and the remaining funds were invested in short term marketable securities with none individually representing more than 10% of the portfolio and none maturing past September 2011. To date we have not experienced a cumulative market loss from the investments that has exceeded $5,000.

Due to recent market events that have adversely affected all industries and the economy as a whole, management has placed increased emphasis on monitoring the risks associated with the current environment, particularly the investment parameters of the short term investments, the recoverability of receivables and inventories, the fair value of assets, and the Company's liquidity. At this point in time, there has not been a material impact on the Company's assets and liquidity. Management will continue to monitor the risks associated with the current environment and their impact on the Company's results.

Off-Balance Sheet Arrangements

We do not have any off-balance sheet arrangements.

Total Contractual Cash Obligations

Table I — Contractual Cash Obligations

		Payments due by period			
	Total	Less than 1 year	1-3 years	3-5 years	More than 5 years
Contractual obligations					
Long-term debt obligations (a)	$ 2,653,737	$ 107,055	$ 1,848,972	$ 139,822	$ 557,888
Other installment obligations (b)	166,806	166,806	—	—	—
Minimum royalty obligations (c)	200,000	20,000	60,000	60,000	60,000
Operating lease obligations (d)	—	—	—	—	—
Total	$ 3,020,543	$ 293,861	$ 1,908,972	$ 199,822	$ 617,888

(a) The Company has a mortgage facility on its land and building. The mortgage is held by a commercial bank and includes approximately 36% that is guaranteed by the U. S. Small Business Administration (SBA). The loan is collateralized by the real property and is also personally guaranteed by a stockholder of the Company. The interest rate on the bank portion is one percentage over the Wall Street Journal Prime Rate (minimum 7%), with 7% being the approximate effective rate for 2010 and 2009, and the SBA portion bears interest at the rate of 5.86%. The commercial bank portion of the loan requires total monthly payments of approximately $14,200, which includes approximately $10,500 per month in contractual interest, through June 2013 when the then remaining principal balance is due which is estimated to be approximately $1,587,000 at that time. The SBA portion of the loan requires total monthly payments of approximately $9,200 through July 2023, which includes approximately $4,600 per month in contractual interest and fees.

(b) The Company has executed a financing agreement for certain of the Company's insurance premiums. At December 31, 2010, these obligations totaled $166,800 all of which are due in 2011.

(c) The Company's Exclusive License Agreement with The Washington University requires minimum annual royalty payments of $20,000 per year.

(d) The Company's operating lease commitments cover a limited number of pieces of office equipment, are generally less than three year commitments and the annual amounts are not significant.

Operating Activities

Net cash consumed by operating activities was $11,000,000 during the year ended December 31, 2010. Cash was consumed by the loss of $13,338,000, less non-cash expenses totaling $2,895,000 relating to stock-based compensation totaling $2,364,000 and depreciation and amortization totaling $492,000 and other items net, which totaled $39,000. In late 2009, we substantially suspended the production of antigen products as a result of our strategic decision to focus available scientific resources on acute appendicitis and single-chain animal product development. As a result of this decision we recorded a write down of approximately $153,000 in antigen inventories in 2010. Antigen sales in 2011 are expected to decline significantly from the 2010 totals. Due to the suspension of antigen sales the net investment in accounts receivable and inventories, decreased by $297,200 in 2010 generating cash including the inventory write down of approximatley $153,000.

A decrease in prepaid and other current assets of $81,000 provided cash, primarily related to routine changes in operating activities. Cash used by operations included a $642,000 reduction in accounts payable and accrued expenses in 2010, primarily due to the decrease in expenses related to the recent completion of the Company's AppyScore clinical trial.

Net cash consumed by operating activities was $11,364,000 during the year ended December 31, 2009. Cash was consumed by the loss of $15,518,000, less net non-cash expenses totaling $2,462,000, for stock-based compensation of $1,715,000, impairment and related charges of $573,000 and depreciation and amortization expenses of $388,000, net of amortized license fee revenues of $214,000. Included in the 2009 impairment charges is $565,000 in patent impairment costs related to terminating an agreement with Merial Limited and to not pursuing patents specific to certain countries that were determined to be not economically beneficial. A decrease in accounts receivable of $15,000 provided cash resulting from lower base antigen sales levels. Inventory levels decreased by a net $233,000, arising from net sales activities and the write down of antigen based inventory to lower of cost or market. In late 2009, we substantially suspended the production of antigen products as a result of its strategic decision to focus available scientific resources on acute appendicitis and single-chain animal product development. As a result of this decision we recorded an approximately $400,000 write down in antigen inventories. Currently, our primary focus is to continue the development activities on the acute appendicitis tests including advancement of such tests within the FDA and single-chain products to attempt to secure near-term value from these products. Cash consumed in operations was reduced by the net increase of $830,000 in accounts payable and accrued expenses, primarily due to the increase in year-end accrued expenses.

Net cash consumed by operating activities was $6,443,000 during the year ended December 31, 2008. Cash was consumed by the loss of $9,568,000, less non-cash expenses of $1,384,000 for stock-based compensation, $368,000 for depreciation and amortization and a $318,000 non-cash charges. During 2008 in connection with the Novartis Animal Health license agreement, of the $2,000,000 we received upfront under that agreement, we recorded $1,560,000 as an increase in deferred revenue to be recognized over the agreement's term, with $440,000 paid out or payable under the Washington University's license agreement terms. As of December 31, 2008 the $561,000 increase in prepaid expenses and other current assets, consisted primarily of approximately $532,000 in costs that we had incurred under the Novartis Animal Health agreement that are recoverable from them.

Investing Activities

Net cash outflows from investing activities consumed $2,923,000 during the year ended December 31, 2010. Marketable securities investments acquired totaled approximately $7.6 million and sales of marketable securities totaled approximately $5.2 million. Cash was used for additions to intangibles of $310,000 for costs incurred from patent filings and equipment additions totaling $192,000.

Net cash inflows from investing activities generated $4,533,000 during the year ended December 31, 2009. Marketable securities investments acquired totaled approximately $2.3 million and sales of marketable securities totaled approximately $7.4 million. Cash totaling $596,000 was used in additions to intangibles of $352,000 for costs incurred from patent filings and equipment additions totaling $244,000 for additions and expansion of lab equipment and facilities.

Net cash outflows from investing activities generated $2,094,000 during the year ended December 31, 2008. Marketable securities investments acquired totaled approximately $9.9 million and sales of marketable securities totaled approximately $12.8 million. A $753,000 use of cash was primarily attributable to additions to intangibles from additional costs incurred from patent filings and equipment additions from upgrades and expansion of lab equipment and capabilities.

Financing Activities

Net cash inflows from financing activities generated $9,171,000 during the year ended December 31, 2010. The Company received net proceeds of $9,117,000 from the sale of common stock and $291,000 in proceeds from the exercise of stock options. The Company repaid $236,000, in scheduled payments under its debt agreements.

Net cash inflows from financing activities generated $8,378,000 during the year ended December 31, 2009. The Company received net proceeds of $8,260,000 from an offering of common stock and $469,000 in proceeds from the exercise of stock warrants and options. The Company repaid $351,000 in scheduled payments under its debt agreements.

Net cash flows from financing activities consumed $1,209,000 during the year ended December 31, 2008. The Company repaid $777,000, in scheduled payments under its debt agreements and paid $992,000 to repurchase and retire shares of the Company's common stock under the Board approved repurchase program. As a result of the exercise of common stock warrants and options net proceeds of $560,000 provided cash.

Critical Accounting Policies

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America (GAAP) requires management to make estimates and assumptions about future events that affect the amounts reported in the financial statements and accompanying notes. Future events and their effects cannot be determined with absolute certainty. Therefore, the determination of estimates requires the exercise of judgment. Actual results inevitably will differ from those estimates, and such differences may be material to the financial statements. The most significant accounting estimates inherent in the preparation of our financial statements include estimates associated with revenue recognition, impairment analysis of intangibles and stock-based compensation.

The Company's financial position, results of operations and cash flows are impacted by the accounting policies the Company has adopted. In order to get a full understanding of the Company's financial statements, one must have a clear understanding of the accounting policies employed. A summary of the Company's critical accounting policies follows:

Investments: The Company invests excess cash from time to time in highly liquid debt and equity securities of highly rated entities which are classified as trading securities. Such amounts are recorded at market and are classified as current, as the Company does not intend to hold the investments beyond twelve months. Such excess funds are invested under the Company's investment policy but an unexpected decline or loss could have an adverse and material effect on the carrying value, recoverability or investment returns of such investments. Our Board has approved an investment policy covering the investment parameters to be followed with the primary goals being the safety of principal amounts and maintaining liquidity of the fund. The policy provides for minimum investment rating requirements as well as limitations on investment duration and concentrations.

Intangible Assets: Intangible assets primarily represent legal costs and filings associated with obtaining patents on the Company's new discoveries. The Company amortizes these costs over the shorter of the legal life of the patent or its estimated economic life using the straight-line method. The Company tests intangible assets with finite lives at least annually, or upon significant changes in the Company's business environment.

Long-Lived Assets: The Company records property and equipment at cost. Depreciation of the assets is recorded on the straight-line basis over the estimated useful lives of the assets. Dispositions of property and equipment are recorded in the period of disposition and any resulting gains or losses are charged to income or expense when the disposal occurs. The carrying value of the Company's long-lived assets is reviewed at least annually to determine that such carrying amounts are not in excess of estimated market value. Goodwill is reviewed annually for impairment by comparing the carrying value to the present value of its expected cash flows or future value. The required annual testing resulted in no impairment charges being recorded to date.

Revenue Recognition: The Company's revenues are recognized when products are shipped or delivered to unaffiliated customers. The Securities and Exchange Commission's Staff Accounting Bulletin (SAB) No. 104, provides guidance on the application of generally accepted accounting principles to select revenue recognition issues. The Company has concluded that its revenue recognition policy is appropriate and in accordance with SAB No. 104. Revenue is recognized under development and distribution agreements only after the following criteria are met: (i) there exists adequate evidence of the transactions; (ii) delivery of goods has occurred or services have been rendered; and (iii) the price is not contingent on future activity and collectability is reasonably assured.

Stock-based Compensation: ASC 718 (formerly - SFAS No. 123(R)), *Share-Based Payment*, defines the fair-value-based method of accounting for stock-based employee compensation plans and transactions used by the Company to account for its issuances of equity instruments to record compensation cost for stock-based employee compensation plans at fair value as well as to acquire goods or services from non-employees. Transactions in which the Company issues stock-based compensation to employees, directors and consultants and for goods or services received from non-employees are accounted for based on the fair value of the equity instruments issued. The Company utilizes pricing models in determining the fair values of options and warrants issued as stock-based compensation. These pricing models utilize the market price of the Company's common stock and the exercise price of the option or warrant, as well as time value and volatility factors underlying the positions.

Recently issued and adopted accounting pronouncements:

In October 2009, the FASB issued ASU 2009-13, "*Revenue Recognition* (Topic 605) — *Multiple-Deliverable Revenue Arrangements*." This ASU eliminates the requirement that all undelivered elements must have objective and reliable evidence of fair value before a company can recognize the portion of the consideration that is attributable to items that already have been delivered. This may allow some companies to recognize revenue on transactions that involve multiple deliverables earlier than under the current requirements. Additionally, under the new guidance, the relative selling price method is required to be used in allocating consideration between deliverables and the residual value method will no longer be permitted. This ASU is effective prospectively for revenue arrangements entered into or materially modified beginning in fiscal 2011. A company may elect, but will not be required, to adopt the amendments in this ASU retrospectively for all prior periods. The Company is currently evaluating the requirements of this ASU and has not yet determined the impact, if any, that it will have on the financial statements.

In April 2010, the FASB issued ASU 2010-17, "Revenue Recognition – Milestone Method (Topic 605): Milestone Method of Revenue Recognition." This ASU is effective on a prospective basis for milestones achieved in fiscal years, and interim periods within those years, beginning on or after June 15, 2010. Early adoption is permitted. If a vendor elects early adoption and the period of adoption is not the beginning of the entity's fiscal year, the entity should apply the amendments retrospectively from the beginning of the year of adoption. The Company does not expect the provisions of ASU 2010-17 to have a material effect on the financial statements.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURE ABOUT MARKET RISK.

General

We have limited exposure to market risks from instruments that may impact the *Balance Sheets*, *Statements of Operations*, and *Statements of Cash Flows*. Such exposure is due primarily to changing interest rates.

Interest Rates

The primary objective for our investment activities is to preserve principal while maximizing yields without significantly increasing risk. This is accomplished by investing excess cash in highly liquid debt and equity investments of highly rated entities which are classified as trading securities. As of December 31, 2010, approximately 72% of the investment portfolio was in cash equivalents with very short term maturities and therefore not subject to any significant interest rate fluctuations. We have no investments denominated in foreign country currencies and therefore our investments are not subject to foreign currency exchange risk.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Board of Directors and Stockholders
AspenBio Pharma, Inc.

We have audited the accompanying balance sheets of AspenBio Pharma, Inc. as of December 31, 2010 and 2009, and the related statements of operations, stockholders' equity, and cash flows for each of the years in the three-year period ended December 31, 2010. We also have audited AspenBio Pharma, Inc.'s internal control over financial reporting as of December 31, 2010, based on criteria established in *Internal Control—Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). AspenBio Pharma, Inc.'s management is responsible for these financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Report on Internal Control Over Financial Reporting. Our responsibility is to express an opinion on these financial statements and an opinion on the Company's internal control over financial reporting based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement and whether effective internal control over financial reporting was maintained in all material respects. Our audits of the financial statements included examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of AspenBio Pharma, Inc. as of December 31, 2010 and 2009, and the results of its operations and its cash flows for each of the years in the three-year period then ended, in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, AspenBio Pharma, Inc. maintained, in all material respects, effective internal control over financial reporting as of December 31, 2010, based on criteria established in *Internal Control—Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

/s/ GHP HORWATH, P.C.

Denver, Colorado
April 14, 2011

AspenBio Pharma, Inc.
Balance Sheets
December 31,

	2010	2009
ASSETS		
Current assets:		
Cash and cash equivalents	$ 8,908,080	$ 13,366,777
Short-term investments (Note 1)	2,932,188	510,120
Accounts receivable, net (Note 1)	73,176	47,959
Inventories (Notes 1 and 2)	17,130	339,546
Prepaid expenses and other current assets	376,047	163,029
Total current assets	12,306,621	14,427,431
Property and equipment, net (Notes 3 and 5)	3,107,134	3,310,844
Other non-current assets, net (Notes 1 and 4)	1,745,350	1,639,836
Total assets	$ 17,159,105	$ 19,378,111
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$ 1,126,172	$ 1,545,549
Accrued compensation	227,570	243,485
Accrued expenses – other	357,685	564,422
Deferred revenue, current portion (Note 10)	746,062	813,947
Current portion of notes payable (Note 5)	273,861	107,417
Total current liabilities	2,731,350	3,274,820
Notes payable, less current portion (Note 5)	2,546,682	2,655,418
Deferred revenue, less current portion (Note 10)	633,636	634,145
Total liabilities	5,911,668	6,564,383
Commitments and contingencies (Note 10)		
Stockholders' equity (Notes 6 and 7):		
Common stock, no par value, 60,000,000 shares authorized; 40,138,324 and 37,467,642 shares issued and outstanding	66,054,554	54,283,126
Accumulated deficit	(54,807,117)	(41,469,398)
Total stockholders' equity	11,247,437	12,813,728
Total liabilities and stockholders' equity	$ 17,159,105	$ 19,378,111

See Accompanying Notes to Financial Statements

AspenBio Pharma, Inc.
Statements of Operations
Years ended December 31,

	2010	2009	2008
Sales (Note 1)	$ 370,229	$ 290,872	$ 821,442
Cost of sales (Note 1)	358,094	710,207	581,676
Gross profit (loss)	12,135	(419,335)	239,766
Other revenue (Note 10)	68,394	213,947	47,960
Operating expenses:			
Selling, general and administrative	7,510,718	6,630,908	4,433,422
Research and development	6,019,373	8,713,697	6,025,275
Total operating expenses	13,530,091	15,344,605	10,458,697
Operating loss	(13,449,562)	(15,549,993)	(10,170,971)
Other income (expense):			
Interest income	61,696	189,429	746,093
Interest expense	(194,482)	(200,136)	(228,548)
Other income, net (Note 8)	244,629	43,135	85,107
Total other income, net	111,843	32,428	602,652
Net loss	$ (13,337,719)	$ (15,517,565)	$ (9,568,319)
Basic and diluted net loss per share	$ (0.34)	$ (0.47)	$ (0.31)
Basic and diluted weighted average number of common shares outstanding	39,247,604	33,169,172	31,172,862

See Accompanying Notes to Financial Statements

AspenBio Pharma, Inc.
Statements of Stockholders' Equity
Years ended December 31, 2010, 2009 and 2008

	Common Stock Shares	Common Stock Amount	Accumulated Deficit	Total
Balance, January 1, 2008	30,865,825	$ 42,887,192	$ (16,383,514)	$ 26,503,678
Common stock options and warrants exercised	541,982	560,318	—	560,318
Open market purchases and retirement of common stock	(232,000)	(991,877)	—	(991,877)
Stock-based compensation issued for services	—	1,384,152	—	1,384,152
Net loss for the year	—	—	(9,568,319)	(9,568,319)
Balance, December 31, 2008	31,175,807	43,839,785	(25,951,833)	17,887,952
Common stock options and warrants exercised	1,136,835	468,640	—	468,640
Stock-based compensation issued for services	—	1,714,936	—	1,714,936
Common stock issued for cash, net of offering costs of $503,735	5,155,000	8,259,765	—	8,259,765
Net loss for the year	—	—	(15,517,565)	(15,517,565)
Balance, December 31, 2009	37,467,642	54,283,126	(41,469,398)	12,813,728
Common stock options exercised	261,043	291,028	—	291,028
Stock-based compensation issued for services	—	2,363,871	—	2,363,871
Common stock issued for cash, net of offering costs of $883,471	2,409,639	9,116,529	—	9,116,529
Net loss for the year	—	—	(13,337,719)	(13,337,719)
Balance, December 31, 2010	40,138,324	$ 66,054,554	$ (54,807,117)	$ 11,247,437

See Accompanying Notes to Financial Statements

AspenBio Pharma, Inc.
Statements of Cash Flows
Years ended December 31,

	2010	2009	2008
Cash flows from operating activities:			
Net loss	$ (13,337,719)	$ (15,517,565)	$ (9,568,319)
Adjustments to reconcile net loss to net cash used by operating activities:			
Depreciation and amortization	492,160	388,203	367,538
Impairment charges	107,443	565,242	—
Non-cash charges	—	7,995	317,551
Amortization of license fee	(68,394)	(213,947)	(47,960)
Stock-based compensation for services	2,363,871	1,714,936	1,384,152
(Increase) decrease in:			
Accounts receivable	(25,217)	15,235	4,712
Inventories	322,416	232,740	35,038
Prepaid expenses and other current assets	80,855	613,289	(600,404)
Increase (decrease) in:			
Accounts payable	(419,377)	662,309	520,168
Accrued expenses	(222,652)	167,916	(415,353)
Deferred revenue	—	—	1,560,000
Net cash used in operating activities	(10,706,614)	(11,363,647)	(6,442,877)
Cash flows from investing activities:			
Purchases of investment securities	(7,628,977)	(2,307,248)	(9,912,956)
Sales of investment securities	5,206,909	7,436,336	12,760,469
Purchases of property and equipment	(191,509)	(243,769)	(263,161)
Patent and trademark application costs	(309,898)	(352,184)	(490,010)
Net cash (used in) provided by investing activities	(2,923,475)	4,533,135	2,094,342
Cash flows from financing activities:			
Repayment of notes payable	(236,165)	(350,621)	(777,158)
Net proceeds from issuance of common stock	9,116,529	8,259,765	—
Proceeds from exercise of warrants and options	291,028	468,640	560,318
Repurchase of common stock	—	—	(991,877)
Net cash provided by (used in) financing activities	9,171,392	8,377,784	(1,208,717)
Net increase (decrease) in cash and cash equivalents	(4,458,697)	1,547,272	(5,557,252)
Cash and cash equivalents, at beginning of year	13,366,777	11,819,505	17,376,757
Cash and cash equivalents, at end of year	$ 8,908,080	$ 13,366,777	$ 11,819,505
Supplemental disclosure of cash flow information:			
Cash paid during the year for:			
Interest	$ 194,533	$ 186,700	$ 237,700
Schedule of non-cash investing and financing transactions:			
Acquisitions of assets for installment obligations	$ 293,873	$ —	$ 57,097

See Accompanying Notes to Financial Statements

1. Organization and summary of significant accounting policies:

Nature of operations:

AspenBio Pharma, Inc. (the "Company" or "AspenBio Pharma") was organized on July 24, 2000, as a Colorado corporation. AspenBio Pharma's business is in the development and commercialization of innovative products that address unmet diagnostic and therapeutic needs. The Company's lead product candidate, AppyScore, is designed to be a novel blood-based diagnostic test that, if successfully cleared to be marketed by the FDA, will aid, through the test's negative predictive value, in the evaluation of low risk patients initially suspected of having acute appendicitis, thereby helping address the difficult challenge of triaging possible acute appendicitis patients in the hospital emergency department or urgent care settings.

The Company's research and development activities are currently focused primarily on a human acute appendicitis blood-based test and on bovine single-chain recombinant reproduction enhancement drugs.

To date the Company has in large part relied on equity financing to fund its operations. In 2010, the Company raised additional equity funds (Note 6). Management currently projects that the equity funds raised in 2010 will provide sufficient resources to meet the cash flow needs of the Company through December 31, 2011. However, management cannot provide any assurance that the projections will prove accurate or that unexpected liquidity needs will not arise. As such, the Company may need to raise capital through debt or equity financing during 2011 to fund the Company's operations. Management and the Board of Directors monitor financial resources and may adjust planned business activities and operations as needed to ensure the Company maintains sufficient operating capital.

Cash, cash equivalents and investments:

The Company considers all highly liquid investments with an original maturity of three months or less at the date of acquisition to be cash equivalents. From time to time the Company's cash account balances exceed the balances as covered by the Federal Deposit Insurance System. The Company has never suffered a loss due to such excess balances.

The Company invests excess cash from time to time in highly-liquid debt and equity investments of highly-rated entities which are classified as trading securities. The purpose of the investments is to fund research and development, product development, United States Food and Drug Administration (the FDA) approval-related activities and general corporate purposes. Such amounts are recorded at market values using Level 1 inputs in determining fair value and are classified as current, as the Company does not intend to hold the investments beyond twelve months. Investment securities classified as trading are those securities that are bought and held principally for the purpose of selling them in the near term with the objective of preserving principal and generating profits. These securities are reported at fair value with unrealized gains and losses reported as an element of other income (expense) in current period earnings. The Company's Board of Directors (the Board) has approved an investment policy covering the investment parameters to be followed with the primary goals being the safety of principal amounts and maintaining liquidity of the fund. The policy provides for minimum investment rating requirements as well as limitations on investment duration and concentrations. During late 2008, based upon market conditions, the investment guidelines were tightened to raise the minimum acceptable investment ratings required for investments and shorten the maximum investment term, which criteria remain in effect. As of December 31, 2010, 72% of the investment portfolio was in cash equivalents, which is presented as such on the accompanying balance sheet, and the remaining funds were invested in short-term marketable securities with none individually representing more than 10% of the portfolio and none with maturities past September 2011. To date, the Company's cumulative market loss from the investments has not been significant. For the year ended December 31, 2010, there was approximately $1,065 in unrealized income, $1,388 in unrealized loss, $2,023 realized gain for the year and $17,959 in management fees. For the year ended December 31, 2009, there was approximately $4,709 in unrealized income, there was no realized gain or loss and $18,271 in management fees. For the year ended December 31, 2008, there was approximately $5,200 in unrealized income, $250 in realized loss and $30,500 in management fees.

Fair value of financial instruments:

The Company accounts for financial instruments under Financial Accounting Standards Board (FASB) Accounting Standards Codification Topic (ASC) 820 (formerly Statement of Financial Accounting Standard (SFAS) No. 157), *Fair Value Measurements*. This statement defines fair value, establishes a framework for measuring fair value in generally accepted accounting principles, and expands disclosures about fair value measurements. To increase consistency and comparability in fair value measurements, ASC 820 establishes a fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value into three levels as follows:

Level 1 — quoted prices (unadjusted) in active markets for identical assets or liabilities;

Level 2 — observable inputs other than Level 1, quoted prices for similar assets or liabilities in active markets, quoted prices for identical or similar assets and liabilities in markets that are not active, and model-derived prices whose inputs are observable or whose significant value drivers are observable; and

Level 3 — assets and liabilities whose significant value drivers are unobservable.

Observable inputs are based on market data obtained from independent sources, while unobservable inputs are based on the Company's market assumptions. Unobservable inputs require significant management judgment or estimation. In some cases, the inputs used to measure an asset or liability may fall into different levels of the fair value hierarchy. In those instances, the fair value measurement is required to be classified using the lowest level of input that is significant to the fair value measurement. Such determination requires significant management judgment. There were no financial assets or liabilities measured at fair value, with the exception of cash, cash equivalents and short-term investments as of December 31, 2010 and December 31, 2009.

The carrying amounts of the Company's financial instruments (other than cash, cash equivalents and short-term investments as discussed above) approximate fair value because of their variable interest rates and / or short maturities combined with the recent historical interest rate levels.

Revenue recognition and accounts receivable:

The Company recognizes revenue when product is shipped or delivered depending upon the terms of sale. The Company extends credit to customers generally without requiring collateral. Historically, the Company's base antigen business has sold products primarily throughout North America. One European customer accounted for approximately 4%, 3%, and 2% of net sales during 2010, 2009 and 2008, respectively. At December 31, 2010, two customers accounted for 82% and 13% of total accounts receivable. At December 31, 2009, two customers accounted for 63% and 20% of total accounts receivable. During the year ended December 31, 2010, four customers accounted for a total of 58% of net sales, each representing 19%, 18%, 11% and 10%, respectively. During the year ended December 31, 2009, two customers accounted for a total of 37% of net sales, each representing 20% and 17%, respectively. During the year ended December 31, 2008, three customers accounted for a total of 64% of net sales, each representing 37%, 14% and 13%, respectively.

Revenue is recognized under development and distribution agreements only after the following criteria are met: (i) there exists adequate evidence of the transactions; (ii) delivery of goods has occurred or services have been rendered; and (iii) the price is not contingent on future activity and (iv) collectability is reasonably assured.

The Company monitors its exposure for credit losses and maintains allowances for anticipated losses. Accounts receivable balances are stated net of an allowance for doubtful accounts. The Company records an allowance for doubtful accounts when it is probable that the accounts receivable balance will not be collected. When estimating the allowance, the Company takes into consideration such factors as its day-to-day knowledge of the financial position of specific clients, the industry and size of its clients. A financial decline of any one of the Company's large clients could have an adverse and material effect on the collectability of receivables and thus the adequacy of the allowance for doubtful accounts receivable. Increases in the allowance are recorded as charges to bad debt expense and are reflected in other operating expenses in the Company's statements of operations. Write-offs of uncollectible accounts are charged against the allowance. No allowance was considered necessary at December 31, 2010 and an allowance of $4,500 was recorded as of December 31, 2009.

Inventories:

Inventories are stated at the lower of cost or market. Cost is determined on the first-in, first-out (FIFO) method. The elements of cost in inventories include materials, labor and overhead. During the fourth quarter of 2009, the Company determined that it would suspend production of antigens in 2010 as a result of its strategic plan to focus its resources on acute appendicitis and single-chain animal product development. As a result of this decision and management's assessment of market conditions, the Company wrote-off approximately $153,000 in the carrying value antigen inventories in 2010 and approximately $400,000 in the carrying value of antigen inventories in 2009.

Property and equipment:

Property and equipment is stated at cost and is depreciated using the straight-line method over the estimated useful lives of the assets, generally twenty-five years for the building, ten years for land improvements, five years for equipment and three years for computer related assets.

Goodwill and other intangible assets:

Goodwill, arising from the initial formation of the Company, represents the purchase price paid and liabilities assumed in excess of the fair market value of tangible assets acquired. Under FASB ASC 350 (formerly SFAS No. 142), *Goodwill and Other Intangible Assets,* goodwill and intangible assets with indefinite useful lives are not amortized. ASC 350 requires that these assets be reviewed for impairment at least annually, or whenever there is an indication of impairment. Intangible assets with finite lives will continue to be amortized over their estimated useful lives and reviewed for impairment in accordance with ASC 360 (formerly - FAS No. 144), *Accounting for the Impairment or Disposal of Long-Lived Assets.*

The Company has one reporting unit. The Company performs a goodwill impairment test in the fourth quarter of each year and has determined that there has been no goodwill impairment. A goodwill impairment test will be performed annually in the fourth quarter or upon significant changes in the Company's business environment.

Impairment of long-lived assets:

Management reviews long-lived assets for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Recoverability of assets to be held and used is measured by a comparison of the carrying amount of an asset to undiscounted future cash flows expected to be generated by the asset. If such assets are considered to be impaired, the impairment to be recognized is measured by the amount by which the carrying amount of the assets exceeds the fair value of the assets. Based on its review, including an updated assessment subsequent to year end, management determined that certain costs previously incurred for patents had been impaired during the years ended December 31, 2010 and 2009. Approximately $107,000 and $565,000 of such patent costs were determined to be impaired during the years ended December 31, 2010 and 2009, respectively resulting from management's decisions not to pursue patents based upon a cost benefit analysis of patent expenses and coverage protection in several smaller world markets that were determined to not have the economic or fiscal potential to make the patent pursuit viable. Impairment charges are included in selling, general and administrative expenses in the accompanying statement of operations.

Research and development:

Research and development costs are charged to expense as incurred.

Use of estimates:

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America (GAAP) requires management to make estimates and assumptions that affect reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the balance sheet and the reported amounts of revenue and expenses during the reporting periods. Actual results could differ significantly from those estimates.

Income taxes:

The Company accounts for income taxes under the asset and liability method, in which deferred tax assets and liabilities are recognized for the future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases and operating loss and tax credit carry forwards. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in operations in the period that includes the enactment date. A valuation allowance is required to the extent any deferred tax assets may not be realizable.

The Company does not have an accrual for uncertain tax positions as of December 31, 2010 and 2009. The Company files corporate income tax returns with the Internal Revenue Service and the State of Colorado, and there are open statutes of limitations for tax authorities to audit the Company's tax returns from 2008 through the current period.

Stock-based compensation:

AspenBio Pharma accounts for stock-based compensation under ASC 718 (formerly - SFAS No. 123 (revised 2004)), *Share-Based Payment*. ASC 718 requires the recognition of the cost of employee services received in exchange for an award of equity instruments in the financial statements and is measured based on the grant date fair value of the award. ASC 718 also requires the stock option compensation expense to be recognized over the period during which an employee is required to provide service in exchange for the award (generally the vesting period). The Company estimates the fair value of each stock option at the grant date by using the Black-Scholes option pricing model.

Income (loss) per share:

ASC 260 (formerly - SFAS No. 128), *Earnings Per Share*, requires dual presentation of basic and diluted earnings per share (EPS) with a reconciliation of the numerator and denominator of the basic EPS computation to the numerator and denominator of the diluted EPS computation. Basic EPS excludes dilution. Diluted EPS reflects the potential dilution that could occur if securities or other contracts to issue common stock were exercised or converted into common stock or resulted in the issuance of common stock that then shared in the earnings of the entity.

Basic earnings (loss) per share includes no dilution and is computed by dividing net earnings (loss) available to stockholders by the weighted number of common shares outstanding for the period. Diluted earnings per share reflect the potential dilution of securities that could share in the Company's earnings (loss). The effect of the inclusion of the dilutive shares would have resulted in a decrease in loss per share. Accordingly, the weighted average shares outstanding have not been adjusted for dilutive shares. Outstanding stock options and warrants are not considered in the calculation, as the impact of the potential common shares (totaling approximately 6,431,000, 4,758,000 and 4,305,000 shares for each of the years ended December 31, 2010, 2009 and 2008, respectively) would be to decrease the net loss per share.

Recently issued and adopted accounting pronouncements:

In October 2009, the FASB issued ASU 2010-13, "*Revenue Recognition (Topic 605) — Multiple-Deliverable Revenue Arrangements*." This ASU eliminates the requirement that all undelivered elements must have objective and reliable evidence of fair value before a company can recognize the portion of the consideration that is attributable to items that already have been delivered. This may allow some companies to recognize revenue on transactions that involve multiple deliverables earlier than under the current requirements. Additionally, under the new guidance, the relative selling price method is required to be used in allocating consideration between deliverables and the residual value method will no longer be permitted. This ASU is effective prospectively for revenue arrangements entered into or materially modified beginning in fiscal 2011. A company may elect, but will not be required, to adopt the amendments in this ASU retrospectively for all prior periods. The Company is currently evaluating the requirements of this ASU and has not yet determined the impact, if any, that it will have on the financial statements.

In April 2010, the FASB issued ASU 2010-17, "*Revenue Recognition – Milestone Method (Topic 605): Milestone Method of Revenue Recognition*." This ASU is effective on a prospective basis for milestones achieved in fiscal years, and interim periods within those years, beginning on or after June 15, 2010. Early adoption is permitted. If a vendor elects early adoption and the period of adoption is not the beginning of the entity's fiscal year, the entity should apply the amendments retrospectively from the beginning of the year of adoption. The Company does not expect the provisions of ASU 2010-17 to have a material effect on the financial statements.

2. Inventories:

Inventories consist of the following:

	December 31, 2010	December 31, 2009
Finished goods	$ 17,130	$ 146,412
Goods in process	—	11,375
Raw materials	—	181,759
	$ 17,130	$ 339,546

3. Property and equipment:

Property and equipment consist of the following:

	December 31, 2010	December 31, 2009
Land and improvements	$ 1,107,508	$ 1,107,508
Building	2,589,231	2,589,231
Building improvements	235,946	234,942
Laboratory equipment	1,207,241	1,111,570
Office and computer equipment	378,431	283,597
	5,518,357	5,326,848
Less accumulated depreciation	2,411,223	2,016,004
	$ 3,107,134	$ 3,310,844

4. Other long-term assets:

Other long-term assets consist of the following:

	December 31, 2010	December 31, 2009
Patents, trademarks and applications, net of accumulated amortization of $190,829 and $99,597	$ 1,342,737	$ 1,231,514
Goodwill	387,239	387,239
Deposits and other	15,374	21,083
	$ 1,745,350	$ 1,639,836

The Company capitalizes legal costs and filing fees associated with obtaining patents on its new discoveries. Once the patents have been issued, the Company amortizes these costs over the shorter of the legal life of the patent or its estimated economic life using the straight-line method. Based upon the current status of the above intangible assets, the aggregate amortization expense is estimated to be approximately $54,000 for each of the next five fiscal years.

5. Debt agreements:

Notes payable and installment obligations consisted of the following:

	December 31, 2010	December 31, 2009
Mortgage notes	$ 2,653,737	$ 2,754,176
Other installment obligations	166,806	8,659
	2,820,543	2,762,835
Less current portion	273,861	107,417
	$ 2,546,682	$ 2,655,418

Mortgage notes:

The Company has a mortgage facility on its land and building. The mortgage is held by a commercial bank and includes approximately 36% that is guaranteed by the U. S. Small Business Administration (SBA). The loan is collateralized by the real property and is also personally guaranteed by a stockholder of the Company. The interest rate on the bank portion is one percentage over the Wall Street Journal Prime Rate (minimum 7%), with 7% being the approximate effective rate for 2010 and 2009, and the SBA portion bears interest at the rate of 5.86%. The commercial bank portion of the loan requires total monthly payments of approximately $14,200, which includes approximately $10,500 per month in contractual interest, through June 2013 when the then remaining principal balance is due which is estimated to be approximately $1,607,000 at that time. The SBA portion of the loan requires total monthly payments of approximately $9,200 through July 2023, which includes approximately $4,600 per month in contractual interest and fees.

Other installment obligations:

The Company has executed a financing agreement for certain of the Company's insurance premiums. At December 31, 2010, these obligations totaled $166,806 all of which are due in 2011.

Future maturities:

The Company's debt obligations require minimum annual principal payments of approximately $274,000 in 2011, $114,000 in 2012, $1,670,000 in 2013, $65,000 in 2014, $68,000 in 2015, and $630,000 thereafter, through the terms of the agreements. The Company's Exclusive License Agreement with The Washington University also requires minimum annual royalty payments of $20,000 per year during its term.

6. Stockholders' equity:

2010 Transactions:

In May 2010, the Company completed a registered direct offering of securities consisting of 2,409,639 units (Units) for a negotiated price of $4.15 per Unit, generating approximately $9,117,000 in net proceeds to the Company. Fees and other expenses totaled $883,000, including a placement fee of 6.5%. Each Unit consisted of one share of the Company's no par value common stock and one warrant to purchase 0.285 shares of common stock. Accordingly, a total of 2,409,639 shares of common stock and warrants to purchase 686,746 shares of common stock were issued. The exercise price of the warrants was $4.82 per share, the warrants were exercisable upon issuance for an eight month term and expired in January 2011.

During the year ended December 31, 2010, consultants exercised options outstanding under the Company's 2002 Stock Incentive Plan (the Plan) as amended and approved by the Company's stockholders, to purchase 261,043 shares of common stock generating $291,028 in cash proceeds to the Company.

2009 Transactions:

During the year ended December 31, 2009, former employees, prior to the termination of their option rights, exercised options outstanding under the Plan to purchase 605,000 shares of common stock generating $438,700 in cash proceeds to the Company, and consultants exercised options to purchase 38,000 shares of common stock generating $29,940 in cash proceeds. A consultant's options to purchase 50,000 shares of common stock expired upon the consultant's termination from the Company during 2009. During the year ended December 31, 2009, the holders of 670,924 warrants that were issued for investor relations services elected to exercise those warrants on a cashless basis as provided in the agreements and as a result, were issued 493,835 common shares.

In October 2009, the Company completed a placement of registered securities consisting of 5,155,000 common shares generating $8,260,000 in net proceeds to the Company. Fees and costs totaled $503,735, including a placement agent fee of 5% for certain investors. The purpose of the offering was to raise funds for working capital, new product development and general corporate purposes.

2008 Transactions:

During the year ended December 31, 2008, employees' exercised 400,433 options outstanding under Plan generating $428,136 in cash proceeds and consultants exercised options for 99,332 shares of common stock generating $132,182 in cash. Also during the year ended December 31, 2008, the holder of 36,346 warrants that were issued in 2002 and 2003 elected to exercise those warrants on a cashless basis as provided in the agreements. The 36,346 warrant rights were surrendered and cancelled, and the holder was issued 30,000 common shares. During 2008, a consulting firm exercised 15,000 options on a cashless basis in exchange for 12,217 common shares as provided in the agreement.

During the year ended December 31, 2008, the Company's board of directors authorized a stock repurchase plan to purchase shares of the Company's common stock up to a maximum of $5.0 million. Purchases were made in routine, open market transactions when management determined to affect purchases. Any purchased common shares were thereupon retired. Management may elect to purchase less than $5.0 million. The repurchase program allows the Company to repurchase its shares in accordance with the requirements of the Securities and Exchange Commission on the open market, in block trades and in privately negotiated transactions, depending upon market conditions and other factors. The repurchase program is being funded using the Company's working capital. A total of approximately 232,000 common shares were purchased and retired through December 2008, at a total cost of approximately $992,000, with no subsequent repurchases.

7. Stock options and warrants:

Stock options:

The Company currently provides stock-based compensation to employees, directors and consultants under the Company's Plan. In November 2010, the Company's shareholders approved an amendment to the Plan to increase the number of shares reserved under the Plan from 6,100,000 to 6,800,000. The Company estimates the fair value of the share-based awards on the date of grant using the Black-Scholes option-pricing model (Black-Scholes model). Using the Black-Scholes model, the value of the award that is ultimately expected to vest is recognized over the requisite service period in the statement of operations. Option forfeitures are estimated at the time of grant and revised, if necessary, in subsequent periods if actual forfeitures differ from those estimates. The Company attributes compensation to expense using the straight-line single option method for all options granted.

The Company's determination of the estimated fair value of share based payment awards on the date of grant is affected by the following variables and assumptions:

- The grant date exercise price – the closing market price of the Company's common stock on the date of the grant;
- Estimated option term – based on historical experience with existing option holders;
- Estimated dividend rates – based on historical and anticipated dividends over the life of the option;
- Term of the option – based on historical experience grants have lives of approximately 5 years;
- Risk-free interest rates – with maturities that approximate the expected life of the options granted;
- Calculated stock price volatility – calculated over the expected life of the options granted, which is calculated based on the daily closing price of the Company's common stock over a period equal to the expected term of the option; and
- Option exercise behaviors – based on actual and projected employee stock option exercises and forfeitures.

The Company utilized assumptions in the estimation of fair value of stock-based compensation for the years ended December 31, 2010, 2009 and 2008 as follows:

	2010	2009	2008
Dividend yield	0%	0%	0%
Expected price volatility	110-119%	113-119%	68-71%
Risk free interest rate	1.60-2.62%	1.47-2.66%	1.16-3.07%
Expected term	5 years	5 years	5 years

The Company recognized stock-based compensation during the years ended December 31, as follows:

	2010	2009	2008
Stock options to employees and directors	$ 2,103,276	$ 1,570,552	$ 867,020
Stock options to consultants for:			
Animal health activities	161,357	35,017	—
AppyScore activities	38,064	—	—
General and other activities	—	20,196	102,752
Investor relation activities	61,174	89,171	414,380
Total stock-based compensation	$ 2,363,871	$ 1,714,936	$ 1,384,152

Included in the accompanying Statement of Operations, the Company included stock-based compensation in the following categories:

	2010	2009	2008
Stock-based compensation included in selling, general and administrative expenses	$ 2,325,807	$ 1,714,936	$ 1,384,152
Stock based compensation included in research and development expenses	38,064	—	—
Total stock-based compensation	$ 2,363,871	$ 1,714,936	$ 1,384,152

A summary of stock option activity under the Company's Plan of options to employees, directors and consultants, for the year ended December 31, 2010, is presented below:

	Shares Underlying Options	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term (Years)	Aggregate Intrinsic Value
Outstanding at January 1, 2010	4,425,532	$ 2.06		
Granted	1,398,000	2.14		
Exercised	(261,043)	1.11		
Forfeited	(45,700)	2.65		
Outstanding at December 31, 2010	5,516,789	$ 2.12	7.1	$ —
Exercisable at December 31, 2010	2,986,476	$ 2.08	5.9	$ —

The aggregate intrinsic value in the table above represents the total intrinsic value (the difference between the Company's closing stock price on December 31, 2010 and the exercise price, multiplied by the number of in-the-money options) that would have been received by the option holders, had all option holders been able to and in fact, had exercised their options on December 31, 2010.

During the year ended December 31, 2010, 1,398,000 stock options were granted under the Plan to employees, officers, directors and consultants exercisable at the then market price which averaged $2.14 per share, with a weighted average fair value at the grant date of $1.71 per option. Existing directors and officers were granted a total of 675,000 options at $2.20 per share and existing employees were granted 118,500 options at $2.19 per share, all vesting over a three-year period annually in arrears and expiring in ten years. The Company also issued 400,000 options to a newly hired officer exercisable at $2.28 per share which vest over a three-year period annually in arrears and expire in ten years. Out of the 400,000 options, vesting of 100,000 options was accelerated, under their terms when performance achievements were reached. One consultant was granted 40,000 options at $2.04 per share vesting in equal amounts after six months, twelve months, twenty-four months and thirty-six months from the date of grant and expiring in ten years. A consultant was granted 50,000 options at $2.23 per share vested at the grant date and expiring in five years. Two additional consultants were granted a total of 80,000, 40,000 to each consultant, at $1.04 per share vesting in equal amounts after six months, twelve months, twenty-four months and thirty-six months from the date of grant and expiring in ten years. Six newly-hired employees were granted a total of 34,500 options at an average exercise price of $1.59 per share, all vesting over a three-year period annually in arrears and expiring in ten years. During the year ended December 31, 2009, there were 2,060,500 options granted under the Plan with a weighted average fair value at the grant date of $1.65 per option. During the year ended December 31, 2008, there were 529,022 options granted under the Plan with a weighted average fair value at the grant date of $6.51 per option.

During the year ended December 31, 2010, consultants exercised 261,043 options outstanding under the Company's Plan generating $291,028 in cash and which had an intrinsic value when exercised of $371,130. During the year ended December 31, 2010, a total of 45,700 options were forfeited, 13,333 of which were vested and 32,367 were unvested. The options were exercisable at an average of $2.65 per share and were forfeited upon the employees' terminations from the Company. During the year ended December 31, 2009, there were 643,000 options exercised at an average of $ .73 per share and 353,600 options expired at an average of $2.68 per share. During the year ended December 31, 2008, 15,000 shares exercisable at an average of $2.87 per share expired upon the employees' termination from the Company. During the year ended December 31, 2009, 643,000 options were exercised by employees and consultants that had an intrinsic value totaling $ 1,285,000. During the year ended December 31, 2008, 499,766 options were exercised by employees and consultants that had a total intrinsic value when exercised of $3,278,000.

Based upon the Company's experience, approximately 85% of the outstanding stock options, or approximately 4,689,000 options, are expected to vest in the future, under their terms.

The total fair value of stock options granted to employees, directors and consultants that vested and became exercisable during the years ended December 31, 2010, 2009 and 2008, was $2,327,000, $964,000 and $585,000, respectively.

A summary of the activity of non-vested options under the Company's Plan to acquire common shares granted to employees, directors and consultants during the year ended December 31, 2010 is presented below:

Nonvested Shares	Nonvested Shares Underlying Options	Weighted Average Exercise Price	Weighted Average Grant Date Fair Value
Nonvested at January 1, 2010	2,364,916	$ 2.43	$ 1.78
Granted	1,398,000	2.14	1.71
Vested	(1,200,236)	2.65	1.94
Forfeited	(32,367)	2.23	1.72
Nonvested at December 31, 2010	2,530,313	$ 2.16	$ 1.67

At December 31, 2010, based upon employee, director and consultant options granted to that point, there was approximately $1,986,000 additional unrecognized compensation cost related to stock options that will be recorded over a weighted average future period of three years.

Subsequent to December 31, 2010, in connection with its regular annual grant policy, a total of 754,500 stock options were granted under the Company's 2002 Stock Incentive Plan to employees, officers and directors. Of the total, 625,000 stock options were granted to officers and directors exercisable at the then fair market value of $0.59, vesting over a three year period annually in arrears. An additional 129,500 stock options were granted to employees at the then fair market price of $0.61 which vest over a three year period annually in arrears. All options expire in ten years from the grant date.

Other common stock purchase options and warrants:

As of December 31, 2010, in addition to the stock options discussed above, the Company had outstanding 914,276 non-qualified options and warrants in connection with consulting services for investor relations and placement agent services. The following is a summary of such outstanding options and warrants for the year ended December 31, 2010:

	Shares Underlying Options / Warrants	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term (Years)	Aggregate Intrinsic Value
Outstanding at January 1, 2010	332,530	$ 6.98		
Granted	716,746	4.70		
Exercised	—	—		
Forfeited	(135,000)	8.08		
Outstanding and exercisable at December 31, 2010	914,276	$ 5.03	0.2	$ —

In May 2010, the Company closed on a $10 million registered direct offering consisting of 2,409,639 shares of the Company's no par value common stock and 686,746 warrants. The warrants which are included in the table above were exercisable upon issuance at an exercise price of $4.82 per common share, had an eight month term and expired in January 2011.

During the year ended December 31, 2010, 30,000 warrants to acquire common shares were granted to a consultant in consideration for investor relations services, 15,000 of the warrants are exercisable at $1.80 per share and 15,000 of the warrants are exercisable at $2.14 per share. The warrants vested upon grant and expire three years from the date granted. During the year ended December 31, 2010, 60,000 outstanding warrants to acquire common shares exercisable at $6.75 per share granted to a consultant in consideration for investor relations services expired and 75,000 warrants granted at $9.15 per share in connection with the 2007 public offering expired.

At December 31, 2010, there was no unrecognized cost for such non-qualified options and warrants. The total fair value of such non-qualified options and warrants that vested during the year was $61,000.

Operating expenses for the years ended December 31, 2010, 2009 and 2008, include $61,000, $89,000 and $414,000, respectively, for the value of the investor relations consulting options. The fair value of options, recorded as consulting expense related to investor relations services, at the grant date has been estimated utilizing the Black-Scholes valuation model, with the following assumptions:

	2010	2009	2008
Dividend yield	0%	0%	0%
Expected price volatility	128-130%	71-128%	68-71%
Risk free interest rate	1.26-1.70%	1.14-1.62%	1.16-3.07%
Contractual term	3 years	3 years	3 years

Subsequent to December 31, 2010, 45,000 investor relations consultant options which were exercisable at $12.00 expired and warrants to purchase 686,746 common shares at $4.82 each as part of the May 2010 public offering expired.

8. Other income:

Included in other income is $244,479 the Company received in October 2010 from the U.S. Department of Treasury under the qualifying therapeutic discovery project under Section 48D of the Internal Revenue Code.

9. Income taxes:

Income taxes at the federal statutory rate are reconciled to the Company's actual income taxes as follows:

	2010	2009	2008
Federal income tax benefit at 34%	$ (4,535,000)	$ (5,276,000)	$ (3,253,000)
State income tax net of federal tax effect	(400,000)	(479,000)	(213,000)
Permanent items	881,000	(258,000)	478,000
Valuation allowance	4,054,000	6,013,000	2,988,000
	$ —	$ —	$ —

As of December 31, 2010, the Company has net operating loss carry forwards of approximately $52 million for federal and state tax purposes, which are available to offset future taxable income, if any, expiring through December 2030. A valuation allowance was recorded at December 31, 2010 due to the uncertainty of realization of deferred tax assets in the future.

The tax effects of temporary differences that give rise to significant portions of deferred tax assets and liabilities at December 31, 2010 and 2009, are as follows:

	2010	2009
Deferred tax assets (liabilities):		
Net operating loss and credit carry forwards	$ 19,164,000	$ 14,681,000
Accounts receivable	—	2,000
Inventories	318,000	338,000
Property and equipment	4,000	(48,000)
Patents and other intangible assets	55,000	124,000
Other	12,000	9,000
Deferred revenue	340,000	293,000
Research and development credit	650,000	—
Deferred tax asset	20,543,000	15,399,000
Valuation allowance	(20,543,000)	(15,399,000)
	$ —	$ —

10. Commitments and contingencies:

Commitments:

In April 2008, the Company entered into a long-term exclusive license and commercialization agreement with Novartis Animal Health, Inc. ("Novartis" or "NAH"), to develop and launch the Company's novel recombinant single-chain products for use in bovines, BoviPure LH™ and BoviPure FSH™. The Exclusive License Agreement (Novartis License Agreement) between AspenBio and Novartis was entered into effective April 2, 2008, and grants Novartis a license to AspenBio technology and a sublicense to The Washington University (WU), technology for use in bovine species products worldwide. The term of the Novartis License Agreement continues until the expiration of the last-to-expire of the licensed patent rights, product sales are terminated, or, generally, ten years after the initial product sales if licensed patent rights are not available on a country-by-country basis. The Novartis License Agreement provides that Novartis and AspenBio share development expenses and product sales margins under a splitting arrangement. AspenBio's share of development expenses is in the low double-digit range. AspenBio's share of the product sales margins varies depending upon the level of patent protection and competition on a country-by-country basis and varies from the very low to low double-digit range.

AspenBio received an upfront cash payment of $2,000,000 under the Novartis License Agreement, of which 50% was non-refundable upon signing the agreement, and the balance subject to certain conditions. In 2010 the conditions associated with $100,000 of such milestones were satisfied. Novartis has the right to request a refund of the $900,000 remaining milestone payment and/or terminate the agreement if the pilot study (as defined in the agreement) is not successful. This pilot study was completed during late 2010. NAH has informed us that preliminary pilot study results revealed failure of the pilot study to demonstrate the outcomes as defined in the success criteria, and NAH has requested a refund of the $900,000 milestone payment. We recently received the final, detailed report of the pilot study from NAH and are in the process of reviewing it. NAH has indicated that they would defer the refund request until we have had an opportunity to review the final report. We plan to work with NAH to obtain additional information and understand the implications of the pilot study results on product development efforts under the Novartis License Agreement.

The Novartis License Agreement contains customary terms for confidentiality, prosecution and infringement provisions for the license patent rights, indemnification and insurance coverage. The Novartis License Agreement is cancelable by Novartis on 180 days advance notice; immediately if a change in control transaction occurs and Novartis' rights are not accommodated in good faith by the successor entity; or on 30 days notice on a country-by-country basis in the event designated legal or regulatory issues arise. AspenBio can terminate the agreement immediately if Novartis challenges the validity or enforceability of licensed patent rights or other licensed intellectual property. Either party may terminate if the other party materially breaches the Novartis License Agreement, and fails to cure such breach, becomes insolvent or if either party disposes of substantially all of the assets necessary for its performance under the terms of the agreement. In the event there is a change of ownership in AspenBio, Novartis may choose to assume all obligations under the agreement and generally remit net excess royalty amounts to the successor entity.

In 2004, the Company entered into an agreement with WU, under which the Company obtained exclusive proprietary rights to WU's patent portfolio for use in the animal health industry. The Exclusive License Agreement (WU License Agreement) was entered into effective May 1, 2004, and grants AspenBio an exclusive license and right to sublicense WU's technology (as defined under the WU License Agreement) for veterinary products worldwide, except where such products are prohibited for export under U.S. laws. The term of the WU License Agreement continues until the expiration of the last of WU's licensed patents expire. AspenBio has agreed to pay minimum annual royalties of $20,000 during the term of the WU License Agreement and such amounts are creditable against future royalties. Royalties payable to WU under the WU License Agreement for covered product sales by AspenBio carry a mid-single digit royalty rate and for sublicense fees received by AspenBio carry a low double-digit royalty rate. The WU License Agreement contains customary terms for confidentiality, prosecution and infringement provisions for licensed patents, publication rights, indemnification and insurance coverage. The WU License Agreement is cancelable by AspenBio with ninety days advance notice at any time and by WU with sixty days advance notice if AspenBio materially breaches the WU License Agreement and fails to cure such breach. Under the terms of the WU License Agreement, a portion of license fees and royalties AspenBio receives from sublicensing agreements will be paid to WU. The obligation for such front end fees, totaling $440,000, was recorded upon receipt of the Novartis license fees and in 2008, $190,000 was paid to WU and the remaining $200,000, net of ongoing minimum annually royalty payments, is included with accrued expenses on the accompanying balance sheet.

Revenue recognition related to the Novartis License Agreement and WU Agreement is based primarily on the Company's consideration of Accounting Standards Codification No. 808-10-45 (EITF 07-1), "*Accounting for Collaborative Arrangements*", paragraphs 16-20. For financial reporting purposes, the up-front license fees received from the Novartis License Agreement, net of the amounts due to WU, have been recorded as deferred revenue and are amortized over the term of the Novartis License Agreement. Milestone revenue is or will be recognized into income commencing with the date such milestones are achieved. During the year ended December 31, 2010, milestones totaling $100,000 were achieved, triggering the commencement of amortization of $100,000 of deferred revenue. As of December 31, 2010, deferred revenue of $746,062 has been classified as a current liability and $633,636 has been classified as a long-term liability. The current liability includes the remaining milestone revenue that is subject to achievement conditions and also includes the next twelve months' portion of the amortizable milestone revenue. During each of the years ended December 31, 2010, 2009 and 2008, $68,394, $63,947 and $47,960, respectively, was recorded as the amortized license fee revenue arising from the Novartis License Agreement.

A tabular summary of the milestone categories and amounts of revenue recognition follows:

Category	Non-refundable	Milestone contingent	Total
Prepaid by Novartis	$ 1,000,000	$ 1,000,000	$ 2,000,000
Due to WU	$ (190,000)	$ (250,000)	$ (440,000)
Net carrying amounts at signing	$ 810,000	$ 750,000	$ 1,560,000
Milestones achieved in 2010	$ 100,000	$ (100,000)	$ -
Revenue amortization to December 31, 2010	$ (180,302)	$ -	$ (180,302)
Net carrying amounts at December 31, 2010	$ 629,698	$ 750,000(1)	$ 1,379,698
Commencement of revenue recognition	Upon signing / milestone achievement	Upon milestone achievement	
Original amortization period	152 months	T/B/D upon milestone achievement over remaining life	

(1) – Milestone contingent amount represents $900,000 Novartis milestone amount net of amounts accrued for WU license obligations.

During January 2008, the Company entered into an amendment of its existing animal health industry license agreement with WU. The amendment provides for the human therapeutic use of certain of WU's products. As consideration for this amendment, the Company paid a total of $125,000 in cash. The existing royalty rate was extended to cover these new products and uses.

As of December 31, 2010, the Company has entered into employment agreements with four officers providing aggregate annual minimum commitments totaling $875,000. The agreements automatically renew at the end of each year unless terminated by either party and contain customary confidentiality and benefit provisions.

Contingencies:

On September 1, 2010, the Company received a complaint, captioned *Mark Chipman v. AspenBio Pharma, Inc.*, Case No. 2:10-cv-06537-GW -JC. The complaint was filed in the United States District Court in the Central District of California by an individual investor. The complaint includes allegations of fraud, negligent misrepresentation, violations of Section 10(b) of the Securities Exchange Act of 1934 ("Exchange Act") and Securities and Exchange Commission ("SEC") Rule 10b-5, and violations of Sections 25400 and 25500 of the California Corporations Code, all related to the Company's blood-based acute appendicitis test in development known as AppyScore. The Company is evaluating the complaint, believes that the allegations in the complaint are without merit, and intends to vigorously defend against these claims. The Company has filed a motion to dismiss the complaint and a motion to strike certain allegations, which are pending. On the Company's motion, the action was transferred to the U.S. District Court for the District of Colorado by order dated January 21, 2011. The action has been assigned a District of Colorado Civil Case No. 11-cv-00163-REB-KMT.

On October 1, 2010, the Company received a complaint, captioned *John Wolfe, individually and on behalf of all others similarly situated v. AspenBio Pharma, Inc. et al.*, Case No. CV10 7365. This federal securities purported class action was filed in the United States District Court in the Central District of California on behalf of all persons, other than the defendants, who purchased common stock of AspenBio Pharma, Inc. during the period between February 22, 2007 and July 19, 2010, inclusive. The complaint names as defendants certain officers and directors of the Company during such period. The complaint includes allegations of violations of Section 10(b) of the Exchange Act and SEC Rule 10b-5 against all defendants, and of Section 20(a) of the Exchange Act against the individual defendants, all related to the Company's blood-based acute appendicitis test in development known as AppyScore. The Company and the individual defendants are evaluating the complaint, believe that the allegations in the complaint are without merit, and intend to vigorously defend against these claims. Although the Company has filed a motion to dismiss the complaint, no lead plaintiff has yet been appointed as is required under the Private Securities Litigation Reform Act for this action to proceed. This action was also transferred to the U.S. District Court for the District of Colorado by order dated January 21, 2011. The action has been assigned a District of Colorado Civil Case No. 11-cv-00165-REB-KMT.

On January 4, 2011, a plaintiff filed a complaint in the U.S. District Court for the District of Colorado captioned *Frank Trpisovsky v. Pusey, et al.*, Civil Action No. 11-cv-00023-PAB-BNB, that purports to be a shareholder derivative action on behalf of the Company against thirteen individual current or former officers and directors. The complaint also names the Company as a nominal defendant. The plaintiff asserts violations of Section 14(a) of the Exchange Act, SEC Rule 14a-9, breach of fiduciary duty, waste of corporate assets, and unjust enrichment. On motion of the Company and the individual defendants, the U.S. District Court has stayed this derivative action by order dated March 15, 2011. The Company believes that the plaintiff lacks standing to proceed with this action and intends to challenge the plaintiff's standing if and when the stay is lifted.

In the ordinary course of business and in the general industry in which the Company is engaged, it is not atypical to periodically receive a third party communication which may be in the form of a notice, threat, or 'cease and desist' letter concerning certain activities. For example, this can occur in the context of the Company's pursuit of intellectual property rights. This can also occur in the context of operations such as the using, making, having made, selling, and offering to sell products and services, and in other contexts. The Company intends to make a rational assessment of each situation on a case-by-case basis as such may arise. The Company periodically evaluates its options for trademark positions and considers a full spectrum of alternatives for trademark protection and product branding.

11. Supplemental data: Selected quarterly financial information (unaudited)

	March 31,	June 30,	September 30,	December 31,
Fiscal 2010 quarters ended:				
Total revenues	$ 142,000	$ 59,000	$ 80,000	$ 89,000
Gross margin (loss)	$ 77,000	$ 25,000	$ (70,000)	$ (20,000)
Net loss	$ (3,871,000)	$ (3,422,000)	$ (3,052,000)	$ (2,993,000)
Earnings per share - basic and diluted	$ (0.10)	$ (0.09)	$ (0.08)	$ (0.08)
Market price of common stock				
High	$ 2.37	$ 4.64	$ 1.12	$ .71
Low	$ 1.91	$ .95	$ .49	$ .32
Fiscal 2009 quarters ended:				
Total revenues	$ 82,000	$ 71,000	$ 69,000	$ 69,000
Gross margin (loss)	$ (34,000)	$ (100,000)	$ 53,000	$ (338,000)
Net loss	$ (2,721,000)	$ (3,779,000)	$ (3,830,000)	$ (5,188,000)
Earnings per share - basic and diluted	$ (0.09)	$ (0.12)	$ (0.12)	$ (0.14)
Market price of common stock				
High	$ 7.63	$ 2.67	$ 2.91	$ 2.16
Low	$ 1.29	$ 1.53	$ 1.98	$ 1.39

12. Subsequent event:

Subsequent to December 31, 2010, the Company hired a Vice President of Marketing and Business Development at an annual compensation of $225,000, who previously had a consulting relationship with the Company. As part of the employment arrangement, the Board approved an employment-inducement grant made outside of the Company's Stock 2002 Incentive Plan and he was granted 200,000 options for services which are exercisable at $0.65 per share. The options vest over a three year period, vesting on the first, second and third anniversary of the grant date and expire in ten years.

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

There have been no disagreements between the Company and its independent accountants on any matter of accounting principles or practices, or financial statement disclosure.

ITEM 9A. CONTROLS AND PROCEDURES.

Evaluation of Disclosure Controls and Procedures

As of the end of the period covered by this report, our management carried out an evaluation, with the participation of our principal executive officer and principal financial officer, of the effectiveness of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) promulgated under the Securities Exchange Act of 1934, as amended). Based upon that evaluation, our principal executive officer and principal financial officer concluded that our disclosure controls and procedures were effective as of the end of the period covered by this report. It should be noted that the design of any system of controls is based in part upon certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions, regardless of how remote.

Changes in Internal Control over Financial Reporting

As part of our management's evaluation of the effectiveness of internal controls over financial reporting described below, we made certain improvements to our internal controls. However, there were no changes in our internal controls over financial reporting that occurred during our most recent fiscal quarter that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Management's Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Rule 13a-15(f) under the Exchange Act. Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate. Under the supervision and with the participation of our principal executive officer and principal financial officer, our management conducted an evaluation of the effectiveness of our internal control over financial reporting based on the framework in *Internal Control — Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based upon that evaluation under the framework in *Internal Control — Integrated Framework*, our management concluded that our internal control over financial reporting was effective as of December 31, 2010. GHP Horwath, P. C., our independent registered public accounting firm has issued an attestation report on the effectiveness of our internal control over financial reporting which is included within their Report of Independent Registered Public Accounting Firm.

ITEM 9B. OTHER INFORMATION.

None

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE.

The information required by this Item is incorporated by reference to the Proxy Statement.

ITEM 11. EXECUTIVE COMPENSATION.

The information required by this Item is incorporated by reference to the Proxy Statement.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCK HOLDER MATTERS.

The information required by this Item is incorporated by reference to the Proxy Statement.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE.

The information required by this Item is incorporated by reference to the Proxy Statement.

ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES.

The information required by this Item is incorporated by reference to the Proxy Statement.

PART IV

ITEM 15. EXHIBITS, FINANCIAL STATEMENT SCHEDULES.

(a) Exhibits:

3.1	Articles of Incorporation filed July 24, 2000 (1)
3.1.1	Articles of Amendment to the Articles of Incorporation filed December 26, 2001 (1)
3.1.2	Articles of Amendment to the Articles of Incorporation filed November 9, 2005 (2)
3.2	Amended and Restated Bylaws (3)
4.1	Specimen Certificate of Common Stock (1)
4.2	Form of Warrant between the Company and each of the investors signatories thereto (incorporated by reference to the Company's Current Report on Form 8-K dated and filed with the Securities and Exchange Commission (SEC) on April 30, 2010). (11)
4.3	Form of Common Stock Warrant between AspenBio and Liolios Group, Inc. (12)
10.1	2002 Stock Incentive Plan, as amended and restated effective July 1, 2007 (13)
10.1.1	Amendment to 2002 Stock Incentive Plan, dated June 9, 2008 (12)
10.1.2	Amendment to 2002 Stock Incentive Plan, dated November 20, 2009 (12)
10.1.3	Amendment to 2002 Stock Incentive Plan, dated November 22, 2010 (14)
10.2	Placement Agent Agreement, dated April 30, 2010, between the Company and Lazard Capital Markets LLC. (10)
10.3	Exclusive License Agreement, dated May 1, 2004 between AspenBio and The Washington University, as amended. (11)
10.4	Form of Subscription Agreement between the Company and each of the investors signatories thereto. (10)
10.5	Debt Modification Agreement dated June 13, 2003 with FirstBank of Tech Center. (4)
10.5.1	Loan Agreement between AspenBio, Inc. and Front Range Regional Economic Development Corporation dated June 13, 2003 for $1,300,000 regarding loan for physical plant or capital equipment acquisitions. (4)
10.5.2	Promissory Note dated June 13, 2003 by AspenBio, Inc. to Front Range Regional Economic Development Corporation in principal amount of $1,300,000. (4)
10.5.3	Unconditional Guarantee dated June 13, 2003 by AspenBio, Inc. to Front Range Regional Economic Development Corporation in principal amount of $1,300,000. (4)
10.6	Exclusive License Agreement with Novartis Animal Health, Inc., dated as of April 2, 2008. (5)
10.6.1	Amendment to Exclusive License Agreement with Novartis Animal Health, Inc., dated as of April 2, 2008. (5)
10.6.2	Amendment to Exclusive License Agreement with Novartis Animal Health, dated July 26, 2010 *
10.7	Employment Agreement with Jeffrey McGonegal, effective as of February 10, 2009. (6)
10.8	Assignment and Consultation Agreement, dated May 29, 2003, between AspenBio and John Bealer, M.D. (7)
10.9	Employment Agreement with Greg Bennett effective as of January 1, 2010. (12)
10.10	Employment Agreement with Greg Pusey effective as of January 1, 2010. (12)
10.11	Employment Agreement with Stephen Lundy effective as of March 24, 2010. (12)
10.12	Form of Stock Option Agreement under the 2002 Stock Incentive Plan, as amended and restated and amended. (12)
10.13	Non-Employee Director Compensation. (12)
14	Form of Code of Ethics
23	Consent of GHP Horwath, P.C. *
31.1	Rule 13a-14(a)/15d-14(a) - Certification of Chief Executive Officer *
31.2	Rule 13a-14(a)/15d-14(a) - Certification of Chief Financial Officer. *
32	Section 1350 Certification Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002. *

* Filed herewith.

(1) Incorporated by reference from the registrant's Registration Statement on Form S-1 (File no. 333-86190), filed April 12, 2002.

(2) Incorporated by reference from the registrant's Report on Form 10-QSB for the quarter ended October 31, 2005, filed November 10, 2005

(3) Incorporated by reference from the registrant's Report on Form 10-Q for the quarter ended March 31, 2008 filed on May 15, 2008.

(4) Incorporated by reference from the registrant's Report on Form 10-KSB/A for the year ended December 31, 2004 (file no. 000-50019), filed March 29, 2004.

(5) Incorporated by reference from the registrant's Report on Form 10-Q for the quarter ended June 30, 2008, filed August 13, 2008.

(6) Incorporated by reference from the registrant's Report on Form 8-K dated February 10, 2009, filed on February 17, 2009.

(7) Incorporated by reference from the registrant's Report on Form 10-K for the year ended December 31, 2008, filed March 16, 2009.

(8) Incorporated by reference from the registrant's Report on Form 8-K dated January 19, 2009, filed January 23, 2009.

(9) Incorporated by reference from the registrant's Report on Form 10-KSB for the year ended December 31, 2007, filed March 21, 2008.

(10) Incorporated by reference from the registrant’s Report on Form 8-K dated and filed on April 30, 2010.

(11) Incorporated by reference from the registrant's Report on Form 10-Q for the quarter ended June 30, 2010, filed August 5, 2010.

(12) Incorporated by reference from the registrant's Report on Form 10-K for the year ended December 31, 2009, filed March 9, 2010.

(13) Incorporated by reference from the registrant’s Registration Statement on Form S-8, filed June 22, 2007.

(14) Incorporated by reference from the registrant’s Report on Form 8-K, dated November 22, 2010 and filed November 29, 2010.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf on April 14, 2011 by the undersigned thereunto duly authorized.

ASPENBIO PHARMA, INC.

/s/ Stephen T. Lundy
Stephen T. Lundy,
Chief Executive Officer

Pursuant to the requirements of the Securities Exchange Act of 1934, this Report has been signed below by the following persons on behalf of the registrant on April 14, 2011 in the capacities indicated.

/s/ Stephen T. Lundy
Stephen T. Lundy,
Chief Executive Officer and Director (principal executive officer)

/s/ Jeffrey G. McGonegal
Jeffrey G. McGonegal, Chief Financial Officer (principal financial officer and principal accounting officer)

/s/ Gail S. Schoettler
Gail S. Schoettler, Non-Executive Chair and Director

/s/ Daryl J. Faulkner
Daryl J. Faulkner, Director

/s/ Gregory Pusey
Gregory Pusey, Vice President and Director

/s/ Douglas I. Hepler
Douglas I. Hepler, Director

/s/ David E. Welch
David E. Welch, Director

/s/ Mark J. Ratain
Mark J. Ratain, Director

/s/ Michael R. Merson
Michael R. Merson, Director

/s/ John H. Landon
John H. Landon, Director

AMENDMENT I

This is an amendment to the Exclusive License Agreement entered into on April 3, 2008 by and between Novartis Animal Health, Inc. ("Novartis") a corporation existing under the laws of Switzerland and AspenBio Pharma, Inc. ("Aspen") a corporation organized and existing under the law of the State of Colorado, USA.

WHEREAS, the Parties entered into an Exclusive License Agreement on April 3, 2008, in which Aspen granted Novartis an exclusive license for Aspen Patent Rights and Aspen Know-How ("License Agreement"); and

WHEREAS, the parties entered into a Development Agreement on July 15, 2008, for the development and commercialization of the Aspen Patent Rights and Aspen Know-How; and

WHEREAS, Article III, of the License Agreement provides for certain Milestone Payments which shall be paid in advance subject to refund for non-occurrence of the corresponding Milestone Event as set forth in Section 3.2(c); and

WHEREAS, Novartis has provided the Milestone Payments to Aspen and no payments have been refunded to Novartis as a result of non-occurrence of a Milestone Event as set forth in Section 3.2(c) of the License Agreement; and

WHEREAS, the Parties desire to amend Article III of the License Agreement to clarify the requirements of Section 3.2(c),

NOW THEREFORE, The parties hereby agree as follows:

Section 3.2(c) of the License Agreement is amended to read as follows:

> Allocation and Return of Milestone Payments; Results of Bovine LH Pilot Study:
> The Parties have agreed that Novartis and Aspen shall conduct a pilot study designed to establish the efficacy of Bovine LH, set forth in the Development Agreement, which study design shall be reasonably satisfactory to Novartis and Aspen (*the "LH Pilot Study") and at the sole expense of Novartis, which expense shall be non-refundable. The LH Pilot Study (NAH-1 0-0002 proof of concept study conducted in California and Argentina) will be considered (i) efficacious if it results in a statistically significant ($p<0.05$) increase in Day 60 pregnancy rate compared to untreated controls and (ii) commercially viable if the criteria for efficacy in (i) above is achieved and it is numerically superior by an absolute percentage of 5% over the positive control (Chorulon® - a human chorionic gonadotropin). For avoidance of doubt, retention of Milestone Payments is contingent upon successfully achieving criteria established in (i) above, which amount paid shall be refunded to Novartis in the event that such results are not achieved.

/s/ Hafid Benchaoui	/s/ Jeff McGonegal
Novartis Animal Health, Inc.	AspenBio Pharma, Inc.
Director, NDP (US)	CFO
July 21, 2010	July 26, 2010

Exhibit 23

CONSENT OF
INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in the Registration Statements on Form S-8 (Nos. 333-143959, 333-165841 and 333-171251) of AspenBio Pharma, Inc., of our report dated April 14, 2011, on the financial statements and effectiveness of internal control over financial reporting of AspenBio Pharma, Inc., which appears on page 31 in this Annual Report on Form 10-K of AspenBio Pharma, Inc. for the year ended December 31, 2010.

/s/ GHP HORWATH, P.C.
Denver, Colorado

April 14, 2011

Exhibit 31.1

CERTIFICATION

I, Stephen T. Lundy certify that:

1. I have reviewed this annual report on Form 10-K of AspenBio Pharma, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report.

4. The registrant's other certifying officers and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officers and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

April 14, 2011

/s/ Stephen T. Lundy

Stephen T. Lundy,
Chief Executive Officer and President
PRINCIPAL EXECUTIVE OFFICER

Exhibit 31.2

CERTIFICATION

I, Jeffrey G. McGonegal certify that:

1. I have reviewed this annual report on Form 10-K of AspenBio Pharma, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report.

4. The registrant's other certifying officers and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officers and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

April 14, 2011

/s/ Jeffrey G. McGonegal

Jeffrey G. McGonegal,
Chief Financial Officer
PRINCIPAL FINANCIAL AND ACCOUNTING OFFICER

**CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Annual Report of AspenBio Pharma, Inc. (the "Company") on Form 10-K for the year ended December 31, 2010 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), each of the undersigned Stephen T. Lundy and Jeffrey G. McGonegal, hereby certifies, pursuant to Section 1350 of Chapter 63 of Title 18 of the United States Code as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

(1) the Report fully complies with the requirements of section 13(a) of the Securities Exchange Act of 1934; and

(2) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

April 14, 2011

/s/ Stephen T. Lundy
Stephen T. Lundy,
Chief Executive Officer and President
PRINCIPAL EXECUTIVE OFFICER

April 14, 2011

/s/ Jeffrey G. McGonegal
Jeffrey G. McGonegal,
Chief Financial Officer
PRINCIPAL FINANCIAL AND ACCOUNTING OFFICER

A signed original of the written statement required by Section 906 has been provided to the Company and will be retained by the Company and furnished to the Securities and Exchange Commission or its staff upon request. This certification is being furnished as required by Rule 13a-14(b) under the Securities Exchange Act of 1934, as amended (the "Exchange Act") and Section 1350 of Chapter 63 of Title 18 of the United States Code, and shall not be deemed "filed" for purposes of Section 18 of the Exchange Act or otherwise subject to the liability of that Section. This certification shall not be deemed to be incorporated by reference into any filing under the Securities Act of 1933 or the Exchange Act, except as otherwise stated in such filing.