HEPALIFE TECHNOLOGIES INC
Form 10-K
April 02, 2007

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-K

X ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 2006

OR

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: 000-29819

HEPALIFE TECHNOLOGIES, INC.

AND SUBSIDIARY

(Exact name of registrant as specified in its charter)

FLORIDA

(State or other jurisdiction of incorporation)

58-2349413

(I.R.S. Employer Identification No.)

60 State Street, Suite 700, Boston, MA 02109

(Address of principal executive offices)

(800) 518-4879

(Registrant s telephone number, including area code)

Securities registered pursuant to Section 12(b) of the Act:

Common Stock, $0.001 par value per share

(Title of Each Class)

Over The Counter Bulletin Board (OTCBB)

(Name of exchange on which registered)

Securities registered pursuant to 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 [X]

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 of Section 15(d) of the Act.

Yes [ ] No [X]

Indicate by check mark whether the registrant: (1) has filed all reports required by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing for the past 90 days. Yes [X] No [_]

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (229.405 of this chapter) is not contained herein, and will not be contained, to the best of the 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. [X]

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, or a non-accelerated filer. (Check one):

Large Accelerated Filer

[ ]

Accelerated Filer

[ ]

Non-accelerated Filer

[X]

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act).

Yes [ ] No [X]

Aggregate market value of the voting and non-voting common equity held by non-affiliates computed by reference to the price at which the common equity was last sold on March 23, 2007: $12,533,561.

Number of shares of Common Stock, $0.001 par value, outstanding as of March 23, 2007: 73,062,920.

Documents incorporated by reference: None.

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PART I

ITEM 1. BUSINESS.

Forward-Looking Statements

Except for the historical information presented in this document, the matters discussed in this Form 10-K for the fiscal year ending December 31, 2006, this report contains forward-looking statements. Such forward-looking statements include statements regarding, among other things, (a) our projected sales and profitability, (b) our growth strategies, (c) anticipated trends in our industry, (d) our future financing plans, and (e) our anticipated needs for working capital. Forward-looking statements, which involve assumptions and describe our future plans, strategies, and expectations, are generally identifiable by use of the words may, will, should, expect, anticipate, estimate, believe, int or the negative of these words or other variations on these words or comparable terminology. This information may involve known and unknown risks, uncertainties, and other factors that may cause our actual results, performance, or achievements to be materially different from the future results, performance, or achievements expressed or implied by any forward-looking statements. These statements may be found under Management's Discussion and Analysis of Financial Condition and Results of Operations, Business, Properties, as well as in this report generally. Actual events or results may differ materially from those discussed in forward-looking statements as a result of various factors, including, without limitation, the risks outlined under Risk Factors and matters described in this report generally. In light of these risks and uncertainties, there can be no assurance that the forward-looking statements contained in this filing will in fact occur.

The Company

We are a Florida corporation authorized to issue up to 300,000,000 shares of common stock (of which 73,062,920 were issued and outstanding on March 23, 2007) and 1,000,000 shares of preferred stock (none of which has been issued).

Description of Business

We are a development stage biotechnology company focused on the identification and development of cell-based technologies and products. We currently do not directly conduct any of our research and development activities.

Rather, once a technology has been identified, we fund the research and development activities relating to the technology with the intention of ultimately, if warranted, licensing, commercializing and marketing the subject technology. We do not have, and may never develop, any commercialized products. We have not generated any revenue from our current operations and do not expect to do so for the foreseeable future.

Our sponsored research is being conducted pursuant to a Cooperative Research and Development Agreement (CRADA) with the United States Department of Agriculture s Agricultural Research Service (the USDA) and a sponsored research agreement with Michigan State University (MSU). Currently, we are concentrating our sponsored research and development efforts on developing a cell-supported artificial liver device, in-vitro toxicology and pre-clinical drug testing platforms, and a cell-based vaccine production system.

HepaLife s ongoing sponsored research and development work is being conducted at two USDA laboratories, the Growth Biology Laboratory and the Biotechnology and Germplasm Laboratory, both located at the Beltsville Agricultural Research Center in Beltsville, Maryland, and at the Department of Animal Science, Center for Animal Functional Genomics at Michigan State University in East Lansing, Michigan.

Artificial Liver Device

We are working towards optimizing the hepatic (liver) functionality of a porcine cell line, and subclones thereof, which we refer to as the PICM-19 Cell Line. The PICM-19 Cell Line was developed and patented by USDA s Agricultural Research Service scientists.

The hepatic characteristics of the PICM-19 Cell Line have been demonstrated to have potential application in the production of an artificial liver device, which application was also developed and patented by USDA s Agricultural Research Service scientists for potential use by human patients with liver failure.

In-Vitro Toxicology Testing

The PICM-19 Cell Line, grown in-vitro, can synthesize liver specific proteins such as albumin and transferrin, and display enhanced liver-specific functions, such as ureagenesis (conversion of ammonia to urea) and cytochrome P450 (a family of over 60 enzymes the body uses to break down toxins and make blood) activity. The P-450 enzyme systems are key components in the overall hepatic detoxification pathway of drugs and other xenobiotics (toxic foreign chemicals which can be both man-made and natural chemicals, such as pesticides and pollutants). Likewise, ureagenesis is another important hepatic function since urea production is required for the detoxification of ammonia derived from the catabolism (breakdown of complex organic molecules into simpler components) of a number of nitrogen containing compounds. As a result, we believe the PICM-19 Cell Line could be an important element in developing in-vitro toxicological and pre-clinical drug testing platforms that could more accurately determine the potential toxicity and metabolism of new pharmacological compounds in the liver.

Cell Based Vaccine Production

We are working towards optimizing the functionality of a chicken cell line, and subclones thereof, which we refer to as the PBS-1 Cell Line. The PBS-1 Cell Line was developed for use in cell-based vaccine production and was exclusively licensed from the Michigan State University in June 2006. The license agreement gives HepaLife exclusive rights to five issued patents. Successful cell-culture based vaccine production has the potential to reduce manufacturing time compared to traditional influenza vaccine manufacturing methods and could allow for rapid expansion of vaccine production in the face of an influenza pandemic.

Currently, vaccine production involves injecting a small amount of a targeted virus into fertilized chicken eggs. Over time, the virus is harvested from the eggs, eventually inactivated and purified, and finally blended into a vaccine and bottled in vials. This egg-based production method takes at least six months, and in the event of a flu pandemic, it is unlikely to produce vaccines fast enough to meet expected demand.

Third-party analysis has confirmed that PBS-1 cells are free from exogenous agents, fungi, bacteria, diseases, and potentially harmful viruses. In addition, PBS-1 cell have grown and replicated several human influenza virus types, including H1N1, H3N2 and type B. The most important step towards the production of a cell-culture based vaccine against a targeted virus is the ability to efficiently grow the same virus in a cell substrate.

Our Strategy

Our sponsored research, by way of a CRADA with the USDA, is focused on optimizing the hepatic functionality of the PICM-19 Cell Line, and subclones thereof, for use in the production of an artificial liver device for human patients with liver failure. The successful adaptation and application of an optimized PICM-19 Cell Line, along with the development of an artificial liver device, would allow us to target the estimated 25 million Americans that are or have been afflicted with liver and biliary disease.

Based upon our assessment of the information and data obtained in connection with our decision to enter into the CRADA and subsequently obtained from our ongoing sponsored research efforts, we anticipate that an artificial liver device, once approved for use by appropriate regulatory agencies, could be used either as a temporary artificial liver for patients awaiting a liver transplant, thus lengthening the time they have available while an organ donor is located, or it could provide support for post-transplantation patients until a grafted liver functions adequately to sustain the patient. Additionally, an artificial liver device could also be used as support for patients with chronic liver disease, thus allowing their own liver time to heal and regenerate, as well as providing immediate temporary support for those patients suffering from acute liver failure, as is the case with drug overdoses.

Assuming we succeed in our sponsored research and development efforts into the optimization of the PICM-19 Cell Line, the development of an artificial liver device incorporating the optimized PICM-19 Cell Line and in obtaining a license pursuant to our CRADA, we will explore a number of commercial opportunities, including, but not limited

to: the outright sale of our technology, joint venture partnerships with health care companies, or our direct marketing and selling of the products, if any, derived from the sponsored research and development efforts.

We are also targeting the toxicological and pre-clinical drug testing markets through the development of in-vitro toxicological and pre-clinical drug testing platforms using the PICM-19 Cell Line. Resulting in part from the limitations of current testing methodology, safety problems relating to drug usage are often discovered only during clinical trials, and unfortunately, sometimes after marketing. Hepatotoxicity, or liver damage caused by medications and other chemical compounds, is the single most common reason leading to drug withdrawal or refusal of drug approval by the FDA, generally resulting in substantial costs to the manufacturer.

Our commercial success will depend on our ability and the ability of our sublicensees, if any, to compete effectively in product development areas such as, but not limited to, safety, efficacy, ease of use, patient or customer compliance, price, marketing and distribution. There can be no assurance that competitors will not succeed in developing products that are more effective than any that may ultimately be derived from our sponsored research and development efforts or that would render any such product obsolete and non-competitive.

Our sponsored research agreement with MSU is focused on optimizing the functionality of a chicken cell line, and subclones thereof, which we refer to as the PBS-1 Cell Line for use in cell-based influenza vaccine production. Cell-culture based vaccine production with the ability to quickly address prospective mutations in influenza viruses is a promising replacement of cumbersome, time-consuming, and costly vaccine production processes which currently rely on chicken eggs.

Assuming we successfully optimize the PBS-1 Cell Line and are able grow and harvest targeted influenza viruses, and achieve the requisite regulatory approvals for cell-based vaccine development, we will explore and pursue a number of commercial opportunities, including, but not limited to: the outright sale of our technology, joint venture partnerships with pharmaceutical companies, or our direct marketing and selling of the products, if any, derived from the license agreement with MSU.

Our Intended Markets

Assuming the results from our sponsored ongoing research and development efforts prove successful, and subject to our receiving regulatory approvals, we, based upon our discussions with representatives of the USDA, the USDA s Agriculture Research Service scientists, and researchers at MSU, and the related input from our advisory board scientists, believe that we will have the potential to address three important market segments:

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the influenza vaccine market through the development of a cell based vaccine production system; and

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the liver disease market through the development of an artificial liver device; and

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the toxicological and pre-clinical drug testing market through the development of in-vitro toxicological and pre-clinical drug testing platforms that may more accurately determine the potential toxicity and metabolism of new pharmacological compounds in the liver.

Our ability to achieve profitability is dependent in part on ultimately obtaining regulatory approvals for products, if any, which are derived from our sponsored research and development efforts, and then entering into agreements for the commercialization of any such products. There can be no assurance that such regulatory approvals will be obtained or such agreements will be entered into. The failure to obtain any such necessary regulatory approvals or to enter into any such necessary agreements could delay or prevent us from achieving profitability and would have a material adverse effect on the business, financial position and results of our operations. Further, there can be no assurance that our operations will become profitable even if products, if any, which are derived from our sponsored research and development efforts, are commercialized.

If FDA and other approvals are ultimately obtained with respect to any product submitted by us in the future for approval, we expect to market and sell any such product through distribution, co-marketing, co-promotion or sublicensing arrangements with third parties. We have no experience in sales, marketing or distribution of biotechnology products and our current management and staff is not trained in these areas.

To date, we have no such agreements. To the extent that we enter into distribution, co-marketing, co-promotion or sublicensing arrangements for the marketing and sale of any such products, any revenues received by us will be dependent on the efforts of third parties. If any of such parties were to breach or terminate their agreement with us or otherwise fail to conduct marketing activities successfully, and in a timely manner, the commercialization of products, if any, derived from our research and development efforts would be delayed or terminated.

The Need for Cell Based Influenza Vaccine Production Technologies

According to the National Institutes of Health, influenza infections over a ten-year period ending 2004, resulted in an average of 36,000 deaths and 114,000 hospitalizations per year in the United States alone. The World Health Organization estimates that the annual average number of deaths worldwide is approximately 500,000. Periodically, new influenza strains evolve with the capacity to cause pandemics. Recently, avian influenza (H5N1) has spread, resulting in more than 4,500 outbreaks in birds since 2003, and more than 280 cases of transmission to humans with a mortality rate of 60%, indicating the potential evolution of a pandemic influenza virus.

Options for treating pandemic influenza are limited, with the primary defense being prophylactic vaccination. Also, once a pandemic strain has been identified, current vaccine production methods are not expected to meet demand. Today s egg-based systems require at least six months for the production of eggs, in which vaccines are produced; the entire process can take nine months or longer, in contrast to cell-based technologies, a faster and more flexible system. In place of eggs, cell-based vaccine production utilizes laboratory-grown cell lines that are capable of hosting a growing virus. The virus is injected into the cells where it multiplies. The cells' outer walls are removed, harvested, purified, and inactivated. A vaccine can be produced in a matter of weeks. Currently, the Polio vaccine is produced using this cell-based methodology.

Cell-based vaccines offer the potential to increase production surge capacity and save lives, according to the US Department of Health & Human Services (HHS). HHS explains that, In order to produce 300 million doses of vaccine, egg-based production would require some 900 million eggs. In the case of an avian flu pandemic, egg-producing flocks could decline, jeopardizing vaccine production capabilities. While eggs are perishable, cell lines can be safely kept frozen indefinitely, increasing the capability to rapidly produce vaccines if an influenza pandemic were to occur.

Cell culture is a robust technology which overcomes the shortcomings of egg-based vaccine production. Vaccine production can start as soon as the virus seed is available and can adapt fast to new virus strains. Accelerating the development of cell culture technology for influenza vaccine production and establishing a domestic production base to support vaccination demands is among the goals defined in the National Strategy for Pandemic Influenza issued by

President George W. Bush in November 2005.

Liver Disease and the Need for an Artificial Liver Device

There is widespread agreement among the medical community that a rescue or bridging device that could supply short-term liver support to patients suffering acute liver failure due to disease or chemical toxicity is a necessary tool for viable treatment options. The need for such a device is increasing world wide. As mentioned above, it is believed that the major impediment to developing such a device is the availability of an optimal cell or cell line that could provide sustained liver function. Our overall goal is to provide a complete system to hospital centers that will be ready to use when a patient is diagnosed with insufficient liver function. The core of our system will be a bioreactor or cell culture device that could house and maintain a healthy population of liver cells from the PICM 19 Cell Line, or subclones thereof, with high metabolic activity in sufficient quantity to provide adequate hepatic detoxification functions. To ensure biological integrity and to maintain the highest quality of the bioreactor s liver cells, we would supply fully functional bioreactors that would incorporate, or be compatible with, presently used dialysis devices so that the patient s plasma could be effectively detoxified by transit through the bioreactor before being returned to the patient.

The National Institutes of Health has estimated that one quarter of Americans will suffer from a liver or biliary disease at some point in their lifetime. These findings have been corroborated by other health organizations which have indicated that an estimated 25 million Americans are or have been afflicted with liver or biliary diseases.

According to the National Institutes of Health (NIH-NIDDK), it is estimated that expenses of approximately $10 billion annually are incurred in the treatment of liver disease and associated conditions. Based on published data, we believe that over $1.5 billion of this market represents the most acute patient population in urgent need of an artificial liver device. We are not aware of any negative reports, data or findings regarding the potential benefits of an effective artificial liver device.

Among those in greatest need, are the 6,169 Americans who underwent liver transplantation procedures in 2004 at a cost of $250,000 per surgery, notwithstanding pre- and post-operative expenses (American Liver Foundation); this market segment alone amounts to $1.54 billion per year.

In addition, the United Network for Organ Sharing estimates that 17,440 persons were awaiting liver transplants as of September 2005. If this waiting list patient population were able to undergo liver transplantation, these patients would account for an additional $4.36 billion in additional to medical care costs.

Causes of liver disease and related conditions include:

Alcohol Abuse

Of the nearly 14 million estimated Americans that either abuse alcohol or are alcoholics, approximately 10 to 20% are expected to develop cirrhosis of the liver, one of the leading causes of death among young and middle-age adults in the United States. Individuals with cirrhosis are particularly prone to developing fatal bacterial infections and cancer of the liver.

Drug Induced Conditions

Adverse drug reactions are an increasingly important clinical problem in medicine today and rank among the ten most common causes of death. While drug induced liver injury occurs in all age groups, a greater percentage occurs in the elderly, where five out of six persons 65 and older are taking at least one medication and almost half are of the elderly take three or more.

Hepatitis

According to publicly available statistical information, approximately 15-25% (upwards of 312,500 Americans) of the estimated 1.25 million chronically infected hepatitis B sufferers will die from chronic liver disease. Globally, an estimated 300 million people are infected with hepatitis B, causing approximately 1,000,000 deaths per year.

Of the estimated 4.5 million Americans infected with hepatitis C, for which at this time there is no known cure, an estimated 70-80% will develop chronic liver disease and of these, approximately 20% will die. The annual health care costs for the affected U.S. population with chronic hepatitis C alone has been estimated to be as high as $9 billion, compared to annual cost of $360 million for hepatitis B sufferers.

Other Medical Conditions

In addition to alcohol abuse, drug overdoses and hepatitis, other causes of liver disease include primary biliary cirrhosis, hemochromatosis, Wilson s disease, alpha1-antitrypsin deficiency, glycogen storage disease, autoimmune hepatitis, cardiac cirrhosis and schistosomiasis.

For people with severe liver failure, orthotopic liver transplantation is the most prescribed and effective treatment therapy available today. At present, there are upwards of 17,000 adults and children medically approved and waiting for liver transplants in the United States. Unfortunately, there are just over 5,000 livers available for transplant annually. Due to a severe shortage of organ donors, the waiting time for potential liver recipients could be as long as two to three years, with 20-30% of these patients not surviving the waiting period.

For persons who receive liver transplants, it is estimated that approximately 30% will die within 5 years of transplantation. The balance will require immunosuppressive drugs, rendering them susceptible to life threatening infections such as kidney failure and increased risk of cancer.

Because of limited treatment options, a low number of donor organs, the high price of transplants and follow up costs, a growing base of hepatitis, alcohol abuse, drug overdoses, and other factors that result in liver disease, we believe that a market opportunity for an artificial liver device able to remove toxins and improve immediate and long-term survival exists at this time.

The Need for Improved In Vitro Toxicology Testing

In 2003 alone, the inability to accurately predict toxicity early in drug development cost the pharmaceutical industry a record $8 billion. In particular, hepatotoxicity, or liver damage caused by medications and other chemical compounds, is the single most common reason leading to drug withdrawal or refusal of drug approval by the FDA. In fact, about one third of all potential drugs fail pre-clinical or clinical trials due to the toxic nature of the compounds being tested, accounting for an estimated $70 million (20%) of total research and development costs per drug.

The pharmaceutical industry has sought ways to identify liver toxicity at earlier stages of drug development, preferably without animal testing, often considered expensive and inaccurate, and socially contentious. As a result, cell-based testing has emerged as a low-cost, early toxicity detection tool in ADME-Tox research.

We believe that our in-vitro toxicology testing technology can reasonably target the broad in-vitro toxicology testing market, a segment expected to reach $1.96 billion by 2007 at an average annual growth rate of 12.1% (Business Communications Company, Inc; B-110R; The Market for in Vitro Toxicology Testing; Samuel Brauer PhD; June 2003).

Employees

At December 31, 2006, HepaLife had 4 full-time employees and 2 part-time employees. In addition, through the Company s CRADA with the USDA, HepaLife has 1 USDA full time research scientist and 2 part-time senior research scientists. Through our sponsored research agreement with MSU, HepaLife has 1 part-time senior research scientist and 3 part-time research scientists. To the best of the Company's knowledge, none of the Company's officers or directors is bound by restrictive covenants from prior employers. None of the Company's employees are represented by labor unions or other collective bargaining groups. We consider relations with our employees to be good. We plan to retain and utilize the services of outside consultants for additional research, testing, regulatory and legal compliance and other services.

ITEM 1A. RISK FACTORS.

We have sought to identify what we believe to be the most significant risks to our business. However, we cannot predict whether, or to what extent, any of such risks may be realized nor can we guarantee that we have identified all possible risks that might arise. Investors should carefully consider all of such risk factors before making an investment decision with respect to our Common Stock. We provide the following cautionary discussion of risks, uncertainties and possible inaccurate assumptions relevant to our business. These are factors that we think could cause our actual results to differ materially from expected results. Other factors besides those listed here could adversely affect us.

We Have Experienced Significant Losses And Expect Losses To Continue For The Foreseeable Future.

We have yet to establish any history of profitable operations. We have incurred annual operating losses of $4,654,499, $2,813,602, and $1,435,613 respectively, during the past three fiscal years of operation. As a result, at December 31, 2006, we had an accumulated deficit of $11,215,872. We had no revenues during the last five fiscal years and we do not expect to generate revenues from our operations for the foreseeable future. Our profitability will require the successful completion of our sponsored research, development efforts and the subsequent commercialization of our products, if any, derived from our sponsored research and development activities regarding our cell based influenza vaccine production technology, artificial liver device, and in-vitro toxicology testing methodologies. No assurances can be given when this will occur or that we will ever be profitable.

To Date Most Of Our Operating Losses Have Been Related To Expenditures Related To Our Advertising And Investor Relations Program Rather Than To Our Sponsored Research And Development Programs.

Since inception through December 31, 2006, we have expended a total of $3,244,074 in connection with our advertising and investor relations representing approximately 29% of our total expenses for the period as compared to total research and development expenditures of $848,755 or approximately 8% of our total expenses for the period. In 2006, we expended an additional $451,373 on our advertising and investor relations program and $302,618 on our research and development activities. If we continue to expend funds in such a disproportionate manner, we may not have sufficient capital for the completion of our obligations under the sponsored research agreement with MSU or the CRADA with the USDA, or for the acquisition and development of new technologies. This would have an adverse affect on our operations and potential profitability, in which case we may need to substantially curtail or cease our research and development activities.

We Currently Do Not Have, And May Never Develop, Any Commercialized Products.

We currently do not have any commercialized products or any significant source of revenue. We have invested substantially all of our time and resources over the last three years in identification, research and development of technologies and cell based products vaccine production, and for liver toxicity detection and the treatment of various forms of liver dysfunction and disease. The technologies, which are the subject of our ongoing sponsored research programs, will require additional development, clinical evaluation, regulatory approval, significant marketing efforts and substantial additional investment before they can provide us with any revenue. We cannot currently estimate with any accuracy the amount of these funds because it may vary significantly depending on the results of our current sponsored research and development activities, product testing, costs of acquiring licenses, changes in the focus and direction of our research and development programs, competitive and technological advances, the cost of filing, prosecuting, defending and enforcing patent claims, the regulatory process, manufacturing, marketing and other costs associated with the commercialization of products following receipt of approval from regulatory bodies and other factors.

Our efforts may not lead to commercially successful products for a number of reasons, including:

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we may not be able to obtain regulatory approvals or the approved indication may be narrower than we seek;

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our technologies or products, if any, derived from our research and development efforts may not prove to be safe and effective in clinical trials;

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physicians may not receive any reimbursement from third-party payors, or the level of reimbursement may be insufficient to support widespread adoption of any products derived from our research and development efforts;

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any products that may be approved may not be accepted in the marketplace by physicians or patients;

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we may not have adequate financial or other resources to complete the development and commercialization of products derived from our research and development efforts;

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we may not be able to manufacture our products in commercial quantities or at an acceptable cost; and

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rapid technological change may make our technologies and products derived from those technologies obsolete.

We Will Require Additional Financing To Sustain Our Operations And Without It We Will Not Be Able To Continue Operations.

Our independent auditors have added an explanatory paragraph to their audit opinion issued in connection with the financial statements for the years ended December 31, 2006 and 2005, relative to our ability to continue as a going concern. Our ability to obtain additional funding will determine our ability to continue as a going concern. Our financial statements do not include any adjustments that might result from the outcome of this uncertainty.

At December 31, 2006, we had a working capital deficit of $1,081,950. We have an operating cash flow deficit of $1,422,509 in 2006 and $1,332,440 in 2005. Although we believe that we have sufficient financial resources and commitments to sustain our current level of research and development activities, any expansion, acceleration or

continuation of such activities will require additional capital which may not be available to us, if at all, on terms and conditions that we find acceptable.

On January 20, 2006, we entered into a new common stock purchase agreement with Fusion Capital Fund II, LLC pursuant to which Fusion Capital has agreed, so long as no event of default exists, to purchase on each trading day $25,000 of our common stock up to an aggregate of $15.0 million over a 30 month period subject to earlier termination at our discretion. In our discretion, we may elect to sell more of our common stock to Fusion Capital than the minimum daily amount. The purchase price of the shares of common stock will be equal to a price based upon the future market price of the common stock without any fixed discount to the market price. Fusion Capital does not have the right or the obligation to purchase shares of our common stock in the event that the price of our common stock is less than $0.50.

We May Not Be Able To Repay Loans We Have Received From Mr. Harmel S. Rayat, Our Secretary, Treasurer, Chief Financial Officer, Chairman, Director And Majority Stockholder, To Fund Our Operation.

We have borrowed an aggregate of $1,010,000 from Mr. Harmel S. Rayat, our secretary, treasurer, chief financial officer, chairman, director and majority stockholder, pursuant to his $1,600,000 loan commitment to us. The loans are due upon the receipt of the written demand from Mr. Rayat. The loans bear interest at the rate of 8.50% per annum. We do not currently have sufficient capital on hand to repay these loans. We may prepay these loans, at any time, without penalty. We expect to repay these amounts from the proceeds we receive under the common stock purchase agreement with Fusion Capital. There is no assurance that we will be able to repay all or a part of these loans or obtain any additional loans from Mr. Rayat in the event we do not receive the proceeds from Fusion Capital.

The Success Of Our Sponsored Research And Development Programs Is Uncertain And We Expect To Be Engaged In Research And Development Efforts For A Considerable Period Of Time Before We Will Be In A Position, If Ever, To Develop And Commercialize Products Derived From Our Sponsored Research Programs.

Unless extended, we expect to continue our current sponsored research and development programs through at least 2007. Research and development activities, by their nature, preclude definitive statements as to the time required and costs involved in reaching certain objectives. Actual costs may exceed the amounts we have budgeted and actual time may exceed our expectations. If our research and development requires more funding or time than we anticipate, then we may have to reduce technological development efforts or seek additional financing. There can be no assurance that we will be able to secure any necessary additional financing or that such financing would be available to us on favorable terms. Additional financings could result in substantial dilution to existing stockholders. Even if we are able to fully fund our research and development program, there is no assurance that, even upon successful completion of our program, we will ever be able to commercialize products if any, derived from our research efforts or that we will be able to generate any revenues from operations.

Our Sponsored Research and Development Programs Are In The Preliminary Development Stage And The Results We Attain May Not Prove To Be Adequate For Purposes of Developing and Commercializing Any Products Or Otherwise To Support A Profitable Business Venture.

Our sponsored research and development programs are in the preliminary development stage. Our programs are targeting specifically, cell based influenza vaccine production, in-vitro toxicology and drug testing platforms, and the development of an artificial liver device. We will require significant further research, development, testing and regulatory approvals and significant additional investment before we will be in a position to attempt to commercialize products derived from our research and development programs. We cannot currently estimate with any accuracy the amount of these funds because it may vary significantly depending on the results of our current sponsored research and development activities, product testing, costs of acquiring licenses, changes in the focus and direction of our research and development programs, competitive and technological advances, the cost of filing, prosecuting, defending and enforcing patent claims, the regulatory process, manufacturing, marketing and other costs associated with commercialization of products following receipt of approval from regulatory bodies and other factors.

There can be no assurances that our early stage sponsored research will be successful. The ultimate results of our ongoing research programs may demonstrate that the technologies being researched by us may be ineffective, unsafe or unlikely to receive necessary regulatory approvals, if ever. If such results are obtained, we will be unable to create marketable products or generate revenues and we may have to cease operations.

We have not submitted any products or any technologies that are the subject of, or result from, our research and development activities for regulatory approval or clearance. Even if our research is successful, the process of obtaining necessary U.S. Food and Drug Administration (FDA) approvals or clearances can take years and is expensive and full of uncertainties. Additionally, approved products are subject to continuing FDA requirements relating to quality control and quality assurance, maintenance of records, reporting of adverse events and product recalls, documentation, labeling and promotion of medical products. Compliance with such continued regulatory oversight may prove to be costly and may limit our ability to attain profitable operations.

We May Not Be Granted An Exclusive License Under Our CRADA With The USDA s Agricultural Research Service.

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We are a party to a CRADA with the USDA s Agricultural Research Service which grants us an option to negotiate an exclusive license to any invention or other intellectual property conceived or reduced to practice under the CRADA which is patentable or otherwise protectable under Title 35 of the United States Code or under the patent laws of a foreign country. There can be no assurance that such a license will be granted to us or that we can obtain a license on terms favorable to us. If we do not obtain an exclusive license, our ability to generate revenue would be materially adversely affected.

We expect to enter into additional research agreements and licenses in the future that relate to important technologies that may be necessary for the development and commercialization of related and unrelated products. These agreements and licenses may impose various commercialization, indemnification, royalty, insurance and other obligations on us, which, if we fail to comply, may result in the termination of these agreements and licenses or make the agreements and licenses non-exclusive, which could affect our ability to exploit important technologies that are required for successful development of products, if any, derived from our ongoing sponsored research and development programs.

Our CRADA With The USDA s Agricultural Research Service May Be Terminated By Either Party At Any Time By Giving Written Notice Of Not Less Than Sixty Calendar Days Prior To The Desired Termination Date.

Our current sponsored research and development program targeting liver disease and in vitro toxicology testing platforms is based entirely on our CRADA with the USDA s Agricultural Research Service. The termination date of the CRADA is September 30, 2007. However, the CRADA provides that it may be terminated unilaterally by either us or the USDA s Agricultural Research Service upon written notice of not less than sixty calendar days prior to the desired termination date. This means that the USDA s Agricultural Research Service could terminate the CRADA even if we are not in default under the terms of the Agreement. If the USDA s Agricultural Research Service were to do so, our business and future prospects would be materially adversely affected.

Currently, We Do Not Directly Conduct Any Of Our Research And Development Activities And Therefore We Will Have Minimal Control Over Such Research.

We rely primarily on the USDA s Agricultural Research Service and MSU to conduct, monitor and assess our sponsored research. We will have no control over the specifics of and possible direction that the research may take. Accordingly, there can be no assurance that the USDA s Agricultural Research Service or MSU will conduct our sponsored research in a manner that will lead to the commercial development of any products.

We are also dependent upon the services of certain key scientific personnel who are not employed by us, including the principal investigators with respect to our ongoing research regarding both the development of cell based influenza vaccine production technologies and the treatment of liver disease (and related conditions), including the development of an artificial liver device, and in-vitro toxicology testing technologies. The loss of the services provided by such persons could have a materially adverse effect on us, unless qualified replacements could be found. We have no control over whether our principal investigators or other scientific personnel will choose to

remain involved with our projects. Since these individuals are not bound by contract to us nor employed by us directly, they might move on to other research or positions.

We Are Subject To Substantial Government Regulation Which Could Materially Adversely Affect Our Business.

We have yet to develop any products for submission for regulatory approval. If any such products are submitted for approval, they must undergo rigorous preclinical and clinical testing and an extensive regulatory approval process before they can be marketed. This process makes it longer, harder and more costly to bring any products to market; moreover, we cannot guarantee that approval will be granted. The pre-marketing approval process can be particularly expensive, uncertain and lengthy. Many products for which FDA have never been approved for marketing. In addition to testing and approval procedures, extensive regulations also govern marketing, manufacturing, distribution, labeling and record-keeping procedures. If we do not comply with applicable regulatory requirements, such violations could result in warning letters, non-approval, suspensions of regulatory approvals, civil penalties and criminal fines, product seizures and recalls, operating restrictions, injunctions and criminal prosecution.

Delays in, or rejection of, FDA or other government entity approval may also adversely affect our business. Such delays or rejection may be encountered due to, among other reasons, government or regulatory delays, lack of efficacy during clinical trials, unforeseen safety issues, slower than expected rate of patient recruitment for clinical trials, inability to follow patients after treatment in clinical trials, inconsistencies between early clinical trial results and results obtained in later clinical trials, varying interpretations of data generated by clinical trials, or changes in regulatory policy during the period of product development in the United States. In the United States more stringent FDA oversight in product clearance and enforcement activities could result in our experiencing longer approval cycles, more uncertainty, greater risk and significantly higher expenses. Even if regulatory approval for any product is granted, this approval may entail limitations on uses for which any such product may be labeled and promoted. It is possible, for example, that we may not receive FDA approval to market products based on our sponsored research and development efforts for broader or different applications or to market updated products that represent extensions of any such product. In addition, we may not receive FDA approval to export any such product in the future, and countries to which products are to be exported may not approve them for import.

Any manufacturing facilities would also be subject to continual review and inspection. The FDA has stated publicly that compliance with manufacturing regulations will be scrutinized more strictly. A governmental authority may challenge our compliance with applicable federal, state and foreign regulations. In addition, any discovery of previously unknown problems with any of our sponsored research and development efforts or products derived from such research and development, or facilities may result in marketing, sales and manufacturing restrictions, being imposed, as well as possible enforcement actions.

From time to time, legislative or regulatory proposals are introduced that could alter the review and approval process relating to our research and development programs and products, if any, derived from such research. It is possible that the FDA will issue additional regulations further restricting the sale of our products, if any, derived from our research and development efforts. Any change in legislation or regulations that govern the review and approval process relating to could make it more difficult and costly to obtain approval, or to produce, market, and distribute such products, if any, derived from our research and development efforts, even if approved.

We May Be Required To Comply With Rules Regarding Animal Testing and This May Limit the Success of Our Research and Development Programs.

Our sponsored research and development efforts involve laboratory animals. We may be adversely affected by changes in laws, regulations or accepted procedures applicable to animal testing or by social pressures that would restrict the use of animals in testing or by actions against our collaborators or us by groups or individuals opposed to such testing.

Our Sponsored Research and Development Program With the USDA Uses Cells Derived From Pigs, Which Could Prevent The FDA Or Other Health Regulatory Agencies From Approving Products, If Any, Derived From Our Research and Development Efforts.

Because pigs carry genetic material of the porcine endogenous retrovirus (PERV), our use of cells derived from pigs carries a risk of transmitting viruses harmless to pigs, but deadly to humans. This may result in the FDA or other health regulatory agencies not approving products, if any, derived from our sponsored research and development efforts or subsequently banning any further use of any such products should health concerns arise after any such product was approved. At this time, it is unclear whether we will be able to obtain clinical and product liability insurance that covers the PERV risk.

We May Be Liable For Contamination Or Other Harm Caused By Materials That We Handle, And Changes In Environmental Regulations Could Cause Us To Incur Additional Expense.

Our sponsored research and development programs involve the handling of potentially harmful biological materials, viruses, and hazardous materials. The USDA s Agricultural Research Service and MSU are subject to federal, state and local laws and regulations governing the use, handling, storage and disposal of hazardous and biological materials. If violations of environmental, health and safety laws occur, we could be held liable for damages, penalties and costs of remedial actions. These expenses or this liability could have a significant negative impact on our business, financial condition and results of operations. We may violate environmental, health and safety laws in the future as a result of human error, equipment failure or other causes. Environmental laws could become more stringent over time, imposing greater compliance costs and increasing risks and penalties associated with violations. We may be subject to potentially conflicting and changing regulatory agendas of political, business and environmental groups. Changes to or restrictions on permitting requirements or processes, hazardous or biological material storage or handling might require an unplanned capital investment or relocation. Failure to comply with new or existing laws or regulations could harm our business, financial condition and results of operations.

Even If We Were To Secure Regulatory Approval In The Future For Any Product Derived From Our Sponsored Ongoing Research Efforts, We Lack Sales and Marketing Experience and Will Likely Rely On Third Parties For Such Services.

Our ability to achieve profitability is dependent in part on ultimately obtaining regulatory approvals for products, if any, which are derived from our sponsored research and development efforts, and then entering into agreements for the commercialization of any such products. There can be no assurance that such regulatory approvals will be obtained or such agreements will be entered into. The failure to obtain any such necessary regulatory approvals or to enter into any such necessary agreements could delay or prevent us from achieving profitability and would have a material adverse effect on the business, financial position and results of our operations. Further, there can be no assurance that

our operations will become profitable even if products, if any, which are derived from our sponsored research and development efforts, are commercialized.

If FDA and other approvals are ultimately obtained with respect to any product submitted by us in the future for approval, we expect to market and sell any such product through distribution, co-marketing, co-promotion or sublicensing arrangements with third parties. We have no experience in sales, marketing or distribution of biotechnology products and our current management and staff is not trained in these areas. To date, we have no such agreements. To the extent that we enter into distribution, co-marketing, co-promotion or sublicensing arrangements for the marketing and sale of any such products, any revenues received by us will be dependent on the efforts of third parties. If any of such parties were to breach or terminate their agreement with us or otherwise fail to conduct marketing activities successfully, and in a timely manner, the commercialization of products, if any, derived from our research and development efforts would be delayed or terminated.

We May Not Be Able To Attract And Retain Qualified Personnel Either As Employees Or As Consultants; Without Such Personnel, We May Not Be Successful In Commercializing The Results Of Our Ongoing Research And Development Efforts.

Competition for qualified employees among companies in the biotechnology industry is intense. Our future success depends upon our ability to attract, retain and motivate highly skilled employees. Attracting desirable employees

will require us to offer competitive compensation packages, including possible stock options. In order to successfully commercialize the results of our ongoing research and development efforts or products, if any, derived from our research program we must substantially expand our personnel, particularly in the areas of clinical trial management, regulatory affairs, business development and marketing. There can be no assurance that we will be successful in hiring or retaining qualified personnel. Managing the integration of new personnel and our growth generally could pose significant risks to our development and progress. The addition of such personnel may result in significant changes in our utilization of cash resources and our development schedule.

We Expect To Operate In Highly Competitive Markets; We May Face Competition From Large, Well-Established Companies With Significant Resources; And, We May Not Be Able To Compete Effectively.

Our commercial success will depend on our ability and the ability of our sublicensees, if any, to compete effectively in product development areas such as, but not limited to, safety, efficacy, ease of use, patient or customer compliance, price, and marketing and distribution. There can be no assurance that competitors will not succeed in developing products that are more effective than any products derived from our research and development efforts or that would render such products obsolete and non-competitive.

The biotechnology industry is characterized by intense competition, rapid product development and technological change. Most of the competition that we encounter will come from companies, research institutions and universities who are researching and developing technologies and potential products similar to or competitive with our own.

These companies enjoy numerous competitive advantages over us, including:

- significantly greater name recognition;

- established relations with healthcare professionals, customers and third-party payors;

- established distribution networks;

- additional lines of products, and the ability to offer rebates, higher discounts or incentives to gain a competitive advantage;

- greater experience in conducting research and development, manufacturing, clinical trials, obtaining regulatory approval for products, and marketing approved products; and

- greater financial and human resources for product development, sales and marketing, and patent litigation.

As a result, we may not be able to compete effectively against these companies or their products.

We May Become Subject To Claims Of Infringement Or Misappropriation Of The Intellectual Property Rights Of Others, Which Could Prohibit Us From Commercializing Products Based On Our Sponsored Research And Development Programs, Require Us To Obtain Licenses From Third Parties Or To Develop Non-Infringing Alternatives, And Subject Us To Substantial Monetary Damages And Injunctive Relief.

We do not have any patents regarding any of our sponsored research and development activities. We may not be able to assert any rights, under our CRADA, to any patents held by the USDA s Agriculture Research Service. Third parties could, in the future, assert infringement or misappropriation claims against us with respect to our current sponsored research and development program or future products, if any, derived from our sponsored research and development program. Whether a product infringes a patent involves complex legal and factual issues, the determination of which is often uncertain. Therefore, we cannot be certain that we have not infringed the intellectual property rights of such third parties.

Any infringement or misappropriation claim could cause us to incur significant costs, could place significant strain on our financial resources, divert management s attention from our business and harm our reputation. If the relevant patents were upheld as valid and enforceable and we were found to infringe, we could be prohibited from continuing our research and development activities and from marketing or selling products, if any, derived from our sponsored research and development efforts unless we could obtain licenses to use the technology covered by the patent or are able to design around the patent. We may be unable to obtain a license on terms acceptable to us, if at all, and we may not be able to commercialize any products. A court could also order us to pay compensatory damages for such infringement, plus prejudgment interest and could, in addition, treble the compensatory damages and award attorney

fees. These damages could be substantial and could harm our reputation, business, financial condition and operating results. Depending on the nature of the relief ordered by the court, we could become liable for additional damages to third parties.

We May Be Exposed To Product Liability Claims For Which We Do Not Have Any Insurance Coverage.

Because our activities involve the researching, developing and testing of new technologies; and in the future we may be involved either directly or indirectly in the manufacturing and distribution of products, if any, derived from our sponsored research and development efforts, we may be exposed to the financial risk of liability claims in the event that the use of any such product results in personal injury, misdiagnosis or death. We may be subject to claims against us even if the apparent injury is due to the actions of others. There can be no assurance that we will not experience losses due to product liability claims in the future, or that adequate insurance will be available in sufficient amounts, at an acceptable cost, or at all. A product liability claim, product recall or other claim, or claims for uninsured liabilities or in excess of insured liabilities, may have a material adverse effect on our business, financial condition and results of operations. These liabilities could prevent or interfere with our product commercialization efforts. Defending a suit, regardless of merit, could be costly, could divert management attention and might result in adverse publicity, which could result in the withdrawal of, or inability to recruit, clinical trial volunteers, or result in reduced acceptance of products derived from our sponsored research and development activities in the market.

We do not currently carry any insurance. If a claim against us results in a large monetary judgment, which we cannot pay, we may have to cease operations.

Failure To Obtain Third Party Reimbursement For Products Derived From Our Sponsored Research and Development Efforts Could Limit Our Revenue.

In the United States, success in obtaining payment for a new product from third parties, such as insurers, depends greatly on the ability to present data which demonstrates positive outcomes and reduced utilization of other products or services, as well as cost data which shows that treatment costs using the new product are equal to or less than what is currently covered for other products. If we are unable to obtain favorable third party reimbursement and patients are unwilling or unable to pay for such products or services out-of-pocket, it could limit our revenue and harm our business.

Mr. Harmel S. Rayat, Our Secretary, Treasurer, Chief Financial Officer, Chairman, And Director, Is Able To Substantially Influence All Matters Requiring Approval By Our Stockholders, Including The Election Of Directors.

As of March 23, 2007, Mr. Rayat beneficially owned approximately 61% of our outstanding common stock. Accordingly, he is able to substantially influence virtually all matters requiring approval by our stockholders, including the election of directors. Our Articles of Incorporation do not provide for cumulative voting in the election of directors and, therefore, although they are able to vote, our other stockholders should not expect to be able to elect any directors to our board of directors.

We Rely On Our Management, The Loss Of Whose Services Could Have A Material Adverse Affect On Our Business.

We rely upon the services of our board of directors and management, in particular those of Mr. Frank Menzler, the loss of which could have a material adverse affect on our business and prospects. Competition for qualified personnel to serve in a senior management position is intense. If we are not able to retain our directors and management, or attract other qualified personnel, we may not be able to fully implement our business strategy; failure to do so would have a materially adverse impact on our future prospects.

Other than our employment agreement with our president, Mr. Frank Menzler, we currently have no employment agreements with any of our officers and directors imposing any specific condition on our officers and directors regarding their continued employment by us. Our officers and directors are also officers, directors and employees of other companies, and we may have to compete with such other companies for their time, attention and efforts.

Except for Mr. Menzler, none of our officers and directors is expected to spend more than approximately five (5%) of their time on our business affairs. We do not maintain key man insurance on any of our directors or officers.

Future Sales Of Our Common Stock May Decrease Our Stock Price.

We have previously issued a total of 73,062,920, shares of common stock, of which 51,453,332 are eligible for resale under Rule 144 of the Securities Act. In addition, we have also registered a substantial number of shares of common stock that are issuable upon the exercise of options. If holders of options choose to exercise their purchase rights and sell shares of common stock in the public market all at once or in a short time period, the prevailing market price for our common stock may decline. Future public sales of shares of common stock may adversely affect the market price of our common stock or our future ability to raise capital by offering equity securities.

Our Stock Price Historically Has Been Volatile And May Continue To Be Volatile.

The market price of our common stock has been and is expected to continue to be highly volatile. Factors, many of which are beyond our control, include, in addition to other risk factors described in this section, the announcements of technological innovations by us or other companies, regulatory matters, new or existing products or procedures, concerns about our financial position, operating results, litigation, government regulation, developments or disputes relating to agreements, patents or proprietary rights, and general economic, industry and market conditions may have a significant impact on the market price of our stock. In addition, potential dilutive effects of future sales of shares of common stock by our stockholders and by us, including Fusion Capital and subsequent sale of common stock by the holders options could have an adverse effect on the market price of our shares.

Volatility in the market price for particular companies has often been unrelated or disproportionate to the operating performance of those companies. Broad market factors may seriously harm the market price of our common stock, regardless of our operating performance. In addition, securities class action litigation has often been initiated following periods of volatility in the market price of a company's securities. A securities class action suit against us could result in substantial costs, potential liabilities, and the diversion of management's attention and resources. To the extent our stock price fluctuates and/or remains low, it could cause you to lose some or all of your investment and impair our ability to raise capital through the offering of additional equity securities.

Our Common Stock Is A "Penny Stock" And Because "Penny Stock" Rules Will Apply, You May Find It Difficult To Sell The Shares Of Our Common Stock You Acquired In This Offering.

Our common stock is a penny stock as that term is defined under Rule 3a51-1 of the Securities Exchange Act of 1934. Generally, a "penny stock" is a common stock that is not listed on a securities exchange and trades for less than $5.00 a share. Prices often are not available to buyers and sellers and the market may be very limited. Penny stocks in start-up companies are among the riskiest equity investments. Broker-dealers who sell penny stocks must provide purchasers of these stocks with a standardized risk-disclosure document prepared by the U.S. Securities & Exchange Commission. The document provides information about penny stocks and the nature and level of risks involved in investing in the penny stock market. A broker must also give a purchaser, orally or in writing, bid and offer quotations and information regarding broker and salesperson compensation, make a written determination that the penny stock is a suitable investment for the purchaser, and obtain the purchaser's written agreement to the purchase. Many brokers choose not to participate in penny stock transactions. Because of the penny stock rules, there is less trading activity in penny stock and you are likely to have difficulty selling your shares.

Our Common Shares Are Thinly Traded, So You May Be Unable To Sell At Or Near Ask Prices Or At All If You Need To Sell Your Shares To Raise Money Or Otherwise Desire To Liquidate Your Shares.

Our common shares have historically been sporadically or "thinly-traded" on the OTCBB, meaning that the number of persons interested in purchasing our common shares at or near ask prices at any given time may be relatively small or non-existent. As of March 23, 2007, our average trading volume per day for the past three months was approximately 45,628 shares a day with a high of 161,600 shares traded and a low of 3,800 shares traded. This situation is attributable to a number of factors, including the fact that we are a small company which is relatively unknown to stock analysts, stock brokers, institutional investors and others in the investment community that generate or influence sales volume, and that even if we came to the attention of such persons, they tend to be risk-

averse and would be reluctant to follow an unproven company such as ours or purchase or recommend the purchase of our shares until such time as we became more seasoned and viable. As a consequence, there may be periods of several days or more when trading activity in our shares is minimal or non-existent, as compared to a seasoned issuer which has a large and steady volume of trading activity that will generally support continuous sales without an adverse effect on share price. We cannot give you any assurance that a broader or more active public trading market for our common shares will develop or be sustained, or that current trading levels will be sustained.

Compliance With Changing Regulation Of Corporate Governance And Public Disclosure May Result In Additional Expenses.

Keeping abreast of, and in compliance with, changing laws, regulations and standards relating to corporate governance and public disclosure, including the Sarbanes-Oxley Act of 2002, new SEC regulations and, in the event we are ever approved for listing on either NASDAQ or a registered exchange, NASDAQ and stock exchange rules, will require an increased amount of management attention and external resources. We intend to continue to invest all reasonably necessary resources to comply with evolving standards, which may result in increased general and administrative expenses and a diversion of management time and attention from revenue-generating activities to compliance activities.

We Do Not Intend To Pay Dividends For The Foreseeable Future.

We currently intend to retain future earnings, if any, to support the development and expansion of our business and do not anticipate paying cash dividends in the foreseeable future. Our payment of any future dividends will be at the discretion of our board of directors after taking into account various factors, including but not limited to our financial condition, operating results, cash needs, growth plans and the terms of any credit agreements that we may be a party to at the time. Accordingly, investors must rely on sales of their common stock after price appreciation, which may never occur, as the only way to realize their investment. Investors seeking cash dividends should not purchase the units offered by us pursuant to this prospectus.

ITEM 2. PROPERTIES.

The Company's corporate office is located at 60 State Street, Suite 700, Boston, MA 02109. Our administrative office is located at 1628 West First Avenue, Suite 216, Vancouver, BC, Canada, V6J 1G1. A private corporation controlled by Mr. Harmel S. Rayat, our secretary, treasurer, chief financial officer, chairman, director and majority stockholder, owns the Vancouver, BC premises. We share these facilities with several other companies with which

Mr. Rayat is affiliated.

Our sponsored research and development activities are conducted in facilities located at the Center for Animal Functional Genomics, Department of Animal Science, Michigan State University, East Lansing, MI 48824, the Growth Biology Laboratory BARC-East, Bldg. 200, Room 202, Beltsville, Maryland 20705 and at the Biotechnology and Germplasm Laboratory BARC-East, Bldg. 200, Room 13, Beltsville, Maryland 20705. These facilities, which also include space for any support personnel that we may assign to the project, are provided to us under the terms of the CRADA with the USDA and our sponsored research agreement with MSU.

ITEM 3. LEGAL PROCEEDINGS.

The Company is not party to any current legal proceedings.

ITEM 4. SUBMISSION OF MATTERS TO A VOTE OF SECURITY HOLDERS.

There were no matters submitted to a vote of the security holders in the fourth quarter of 2006. It is our intention to schedule a shareholder s meeting to elect directors and transact any additional business in the second or third quarter of 2007.

PART II

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

Market Information

The Company's Common Stock is listed on the OTC Bulletin Board under the symbol "HPLF". The following table sets forth the high and low sale prices for the periods indicated:

	High	Low
First Quarter 2004	$3.62	$2.55
Second Quarter 2004	$2.99	$1.47
Third Quarter 2004	$2.91	$1.95
Fourth Quarter 2004	$5.80	$2.06

First Quarter 2005

$4.97

$2.38

Second Quarter 2005

$3.12

$1.80

Third Quarter 2005

$2.10

$1.40

Fourth Quarter 2005

$2.20

$1.35

First Quarter 2006

$1.62

$0.98

Second Quarter 2006

$1.03

$0.62

Third Quarter 2006

$1.28

$0.61

Fourth Quarter 2006

$0.81

$0.54

January 1, 2007 March 22, 2007

$0.69

$0.45

As of March 22, 2007, there were approximately 60 stockholders of record of the Company's Common Stock. We are engaged in a highly dynamic industry, which often results in significant volatility of our common stock price.

Dividend Policy

We have never paid cash dividends on our capital stock and do not anticipate paying any cash dividends in the foreseeable future, but intend to retain our capital resources for reinvestment in our business. Any future determination to pay cash dividends will be at the discretion of the board of directors and will be dependent upon our financial condition, results of operations, capital requirements and other factors as the board of directors deems relevant. Our board of directors has the right to authorize the issuance of preferred stock, without further shareholder approval, the holders of which may have preferences over the holders of the Common Stock as to payment of dividends.

Securities Authorized for Issuance Under Equity Compensation Plans

Number of securities

remaining available for

Number of Securities to

Weighted-average exercise

future issuance under

be issued upon exercise of

price of outstanding

equity compensation plans

outstanding options,

options, warrants and

(excluding securities

warrants and rights

rights

reflected in column (a))

Plan Category

(a)

(b)

(c)

Equity compensation plans

approved by security holders

2,000,000

$0.52

35,598,000

Equity compensation plans not

approved by security holders

Total

2,000,000

$0.52

35,598,000

ITEM 6. SELECTED FINANCIAL DATA

FIVE-YEAR STATEMENT OF OPERATIONS

	Years Ended December 31				
	2002	2003	2004	2005	2006
Revenues	$-	$-	$-	$-	$-
General and administrative					
Management fees and consulting fees Related party	144,600	28,500	9,500	29,925	36,166
Investor Relations	119,500	960,003	1,016,916	696,282	451,373
Stock based compensation expense	-	-	-	-	2,607,302
Other operating expense	21,823	73,767	259,572	409,371	764,162
Research and Development	91,500	41,400	151,546	261,691	302,618
Stock offering costs	-	-	-	1,420,796	505,917
Total General and Administrative Expenses	377,423	1,103,670	1,437,534	2,818,065	4,667,538
Other Income					
Interest Income	(1,951)	(947)	(1,921)	(4,463)	(13,039)
Provision for Income Taxes	-	-	-	-	-
Net Loss Available to Common Stockholders	($375,472)	($1,102,723)	($1,435,613)	($2,813,602)	($4,654,499)
Basic and Diluted Loss Per Common Share	($0.01)	($0.02)	($0.02)	($0.04)	($0.07)
Weighted Average Common Shares Outstanding	52,723,277	57,817,305	64,610,777	69,314,822	71,449,018

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

Discussion and Analysis

The following discussion and analysis is based upon our financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States, and should be read in conjunction with our financial statements and related notes. The preparation of these financial statements requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenue and expenses, and related disclosure of contingent assets and liabilities. Management bases its estimates on historical experience and on various other assumptions that are believed to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions. In addition, the following discussion and analysis contains forward-looking statements that involve risks and uncertainties, including, but not limited to, those discussed in Risk Factors, Forward Looking Statements, and elsewhere in this prospectus.

Overview

We are a development stage, biotechnology company focused on the identification and development of technologies and products for liver toxicity detection, products for the treatment of various forms of liver dysfunction and disease and cell based technologies vaccine production. We currently do not directly conduct any of our own research and

development activities. Rather, once a technology has been identified, we fund the research and development activities relating to the technology with the intention of ultimately, if warranted, licensing, commercializing and marketing the subject technology.

Currently, our sponsored research programs are the result of two agreements: One pursuant to our CRADA with the USDA's Agricultural Research Service and our sponsored research agreement with Michigan State University.

Current cell-based technologies under development by HepaLife include 1) the first-of-its-kind artificial liver device, 2) in-vitro toxicology and pre-clinical drug testing platforms, and 3) novel cell-culture based vaccine production technologies.

Artificial Liver Device

We are working towards optimizing the hepatic functionality of a porcine cell line, and subclones thereof, which we refer to as the PICM-19 Cell Line. The PICM-19 Cell Line was developed and patented by USDA Agricultural Research Service scientists. The hepatic characteristics of the PICM-19 Cell Line have been demonstrated to have potential application in the production of an artificial liver device for potential use by human patients with liver failure.

In-Vitro Toxicology Testing

The PICM-19 Cell Line, grown in-vitro, can synthesize liver specific proteins such as albumin and transferrin and display enhanced liver-specific functions, such as ureagenesis (conversion to ammonia to urea) and cytochrome P450 activity. Consequently, we believe the PICM-19 Cell Line could be an important element in developing in-vitro toxicological and pre-clinical drug testing platforms that could more accurately determine the potential toxicity and metabolism of new pharmacological compounds in the liver.

Cell-Based Vaccine Production

We are working towards optimizing the functionality of a chicken cell line, and subclones thereof, which we refer to as the PBS-1 Cell Line. The PBS-1 Cell Line was developed for use in cell-based vaccine production and was exclusively licensed from the Michigan State University in June 2006. The license agreement gives HepaLife exclusive rights to five issued patents. Successful cell-culture based vaccine production has the potential to reduce manufacturing time compared to traditional influenza vaccine manufacturing methods and could allow for rapid expansion of vaccine production in the face of an influenza pandemic.

Critical Accounting Policies

Our discussion and analysis of our financial condition and results of operations are based on our financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States. The preparation of these financial statements requires us to make estimates and judgments that affect the reported amounts of assets, liabilities and expenses and related disclosures. We review our estimates on an ongoing basis.

We consider an accounting estimate to be critical if it requires assumptions to be made that were uncertain at the time the estimate was made; and changes in the estimate or different estimates that could have been made could have a material impact on our results of operations or financial condition. While our significant accounting policies are described in more detail in the notes to our financial statements included in this prospectus, we believe the following accounting policies to be critical to the judgments and estimates used in the preparation of our financial statements.

General and Administrative Expenses

Our general and administrative expenses consist primarily of personnel related costs, legal costs, including intellectual property, investor relations, accounting costs, and other professional and administrative costs.

Research and Development Costs

Research and development costs represent costs incurred to develop our technology incurred pursuant to our CRADA with the USDA s Agricultural Research Service and pursuant to our sponsored research agreement with MSU. The agreements include salaries and benefits for research and development personnel, allocated overhead and facility occupancy costs, contract services and other costs. We charge all research and development expenses to operations as they are incurred. We do not track research and development expenses by project. In addition costs for third party laboratory work might occur.

Results of Operations

We have yet to establish any history of profitable operations. We have not generated any revenues from operations during the past 5 years and do not expect to generate any revenues for the foreseeable future. We have incurred annual operating losses of $4,654,499, $2,813,602, and $1,435,613 respectively, during the past three fiscal years of operation. As a result, at December 31, 2006, we had an accumulated deficit of $11,215,872. Our profitability will require the successful completion of our research and development programs, and the subsequent commercialization of the results or of products derived from such research and development efforts. No assurances can be given when this will occur or that we will ever be profitable.

Our independent auditors have added an explanatory paragraph to their audit opinion issued in connection with the financial statements for the years ended December 31, 2006 and 2005, relative to our ability to continue as a going concern. Our ability to obtain additional funding will determine our ability to continue as a going concern. Our financial statements do not include any adjustments that might result from the outcome of this uncertainty.

Results of Operations for Years Ended December 31, 2006 and 2005

We had no revenues in 2006 and 2005. Our general and administrative expenses increased 71% to $4,364,920 in 2006, from $2,556,374 in the same period in 2005. This increase was primarily attributable to the stock based compensation expense that incurred in 2006.

In 2006, we also incurred $302,618 in research and development expenses, an increase of 16%, compared to $261,691 of research and development costs that we incurred in 2005.

Interest income increased 192% to $13,039 in 2006, from $4,463 during the same period in 2005. This was the result of higher average cash balances maintained during 2006.

Our net loss in 2006 increased 65% to $4,654,499, from $2,813,602 in 2005. This increase was primarily attributable to the stock based compensation expense that incurred in 2006.

Liquidity and Capital Resources for Years Ended December 31, 2006 and 2005

At December 31, 2006, the Company had a cash balance of $252,887, compared to a cash balance of $107,263 at December 31, 2005.

During 2006, the Company used $1,422,509 of net cash from operating activities, as compared to $1,332,440 of net cash in 2005.

Net cash provided by financing activities was $1,592,246 for 2006 compared to $832,100 for 2005. The Company has financed its operations primarily from cash on hand, through loans from shareholders, proceeds from stock option and warrant exercises and through the common stock purchase agreement with Fusion Capital.

At this time, except for our agreement with Fusion Capital, we have no agreements or understandings with any third party regarding any financings.

During the year ended December 31, 2006, Fusion Capital has purchased 2,154,661 shares of common stock of the Company for total proceeds of $1,719,996.

Results of Operations for Years Ended December 31, 2005 and 2004

We had no revenues in 2005 and 2004. Our general and administrative expenses increased 99% to $2,556,374 in 2005, from $1,285,988 in the same period in 2004. This increase was primarily attributable to the stock offering expense that incurred in the Fusion Capital transaction with the issuance of signing shares and commitment shares.

During the years ended December 31, 2005 and 2004, our investor relations costs represented approximately 25% and 71%, respectively, of our total expenses.

In 2005, we also incurred $261,691 in research and development expenses, an increase of 73%, compared to $151,546 of research and development costs that we incurred in 2004. The increase in research and development costs was the result of our making a total of four payments of $65,422.80 ($261,691 in the aggregate) under our CRADA.

Interest income increased 132% to $4,463 in 2005, from $1,921 during the same period in 2004. This was the result of higher average cash balances maintained during 2005.

Our net loss in 2005 increased 96% to $2,813,602, from $1,435,513 in 2004. This increase was primarily attributable to the stock offering expense that incurred in the Fusion Capital transaction with the issuance of signing shares and commitment shares.

Our operations in 2005 were funded from net loan proceeds in the amount of $150,000 from Mr. Harmel S. Rayat, and $682,100 from the proceeds from the sale of our common stock upon exercise of outstanding options and warrants. In addition, at December 31, 2005, we had a net operating loss carry forward for federal income tax purposes of approximately $2,300,000, which expires at various dates through 2025. The extent of any potential tax benefits to us from the operating loss carry forward is not presently ascertainable.

Liquidity and Capital Resources for Years Ended December 31, 2005 and 2004

At December 31, 2005, the Company had a cash balance of $107,263, compared to a cash balance of $613,523 at December 31, 2004.

During 2005, the Company used $1,332,440 of net cash from operating activities, as compared to $1,364,209 of net cash in 2004.

Net cash provided by financing activities was $832,100 for 2005 compared to $1,666,620 for 2004. The Company has financed its operations primarily from cash on hand, through loans from shareholders and proceeds from stock option and warrant exercises.

At his time, except for our agreement with Fusion Capital, we have no agreements or understandings with any third party regarding any financings.

Sponsored Research Agreements

USDA Agricultural Research Service

On November 1, 2002, we entered into a CRADA with the USDA s Agricultural Research Service and committed to pay a total of $292,727 to USDA s Agricultural Research Service over a two-year period ending February 19, 2005.

Effective on November 28, 2002, we amended our CRADA, in writing, to provide for the addition of Dr. Thomas Caperna as a co-authorized departmental officer s designated representative.

Effective on July 12, 2003, we amended our CRADA, in writing, to reflect the change of our name from Zeta Corporation to HepaLife Technologies, Inc.

In February 2004, we orally amended our CRADA to modify the payment schedule so as to delay payment of installments due in August and November of 2004 and thereafter until and unless funds are actually required.

On May 24, 2004, we amended the CRADA, and agreed to pay a total of $807,828 through September 30, 2007, of which $153,600 had already been paid under the original agreement.

Ownership of Developed Technologies Under the CRADA

Under the terms of the CRADA all rights, title and interest in any subject invention made solely by USDA s Agricultural Research Service employees are owned by USDA s Agricultural Research Service, solely by us are owned by us, and any such inventions are owned jointly by us and USDA s Agricultural Research Service if made jointly by USDA s Agricultural Research Service and us. Under the CRADA, we have an option to negotiate an exclusive license in each subject invention owned or co-owned by USDA s Agricultural Research Service for one or more field (s) of use encompassed by the CRADA. The option terminates when and if we fail to:

- submit a complete application for an exclusive license within sixty days of being notified by USDA s Agricultural Research Service of an invention being available for licensing; or

- submit a good faith written response to a written proposal of licensing terms within forty five days of such proposal.

The Company has the first option to prepare and prosecute patent or Plant Variety Protection Certificate applications, foreign and domestic, on subject inventions owned or co-owned by the U.S. Government, subject to certain conditions.

Although the termination date of the CRADA is September 30, 2007, the CRADA is subject to earlier termination at any time by mutual consent. Moreover, either party may unilaterally terminate the entire agreement at any time by giving the other party written notice not less than sixty calendar days prior to the desired termination date. To date, we have neither given nor received any such written notice.

Michigan State University

On July 15, 2006, we entered into a sponsored research agreement with the Michigan State University and committed to pay up to a total of $70,000 to MSU over a one-year period ending July 14, 2007.

As of December 31, 2006, total payment of $40,927 has been paid in relation to the project, including the reimbursement of research expenses of $32,426 to MSU.

Ownership of Developed Technologies under the Sponsored Research Agreement

In consideration for research support and patent expenses received hereunder, the MSU grants HepaLife a right of first refusal applicable to any exclusive option or exclusive license that MSU elects to offer with respect to any University or joint invention, including any patent application and patents resulting from. In addition, any commercial non-exclusive option or license that the MSU elects to offer with respect to such University invention shall be offered to us simultaneously and under identical terms with the offer to any third party.

Although the termination date of the sponsored research agreement is July 14, 2007, either party may unilaterally terminate the entire agreement at any time by giving the other party written notice not less than ninety calendar days prior to the desired termination date. To date, we have neither given nor received any such written notice.

Plan of Operation

The essential elements of our business plan are centered upon the utilization of the PICM-19 Cell Line in two separate biomedical applications, namely the development of an artificial liver device and in vitro toxicological testing platforms as well as the utilization of the PBS-1 Cell in Vaccine production.

Artificial Liver Device

To help liver failure patients survive long enough to receive a liver transplant or recover without a transplant by exploiting the well known regenerative powers of the liver, a number of artificial liver devices are currently being developed and tested using living pig or human liver cells and various filtering or dialysis mechanisms. Since the liver is the only organ in the human body that can regenerate itself, artificial liver devices are intended to temporarily perform the function of a human liver, such as removing toxins from the body, thus giving the patient s own liver valuable time to recover and regenerate. Unfortunately, artificial liver technologies have not lived up to their initial promise as a consequence of problems relating to their inability to grow liver cells quickly and safely and with inconsistent results from filtering devices. Culturing and maintaining such cells have proven difficult; once removed from the body, they soon lose their normal functioning attributes.

To date, the cellular components of artificial liver devices that are being tested have been based on freshly isolated porcine hepatocytes (liver cells), human immortal tumor cells, or poorly defined stem-like cells prepared from fresh human adult liver tissue. It is widely recognized that the greatest hindrance to the development of a completely functional artificial liver device is the lack of an appropriately defined cell line that will provide the functions of an intact liver.

We are working towards optimizing the hepatic (liver) functionality of a porcine cell line and subclones thereof, which we refer to as the PICM-19 Cell Line. The PICM-19 Cell Line was developed and patented by USDA Agricultural Research Service scientists. Thus far, we have demonstrated that cells from the PICM-19 Cell Line are highly metabolic and are capable of clearing toxic levels of ammonia from the culture environment in a static culture system (ammonia is a highly toxic molecule and a major causative agent of hepatic coma in patients with acute liver failure). A unique metabolic feature of PICM-19 cells is also the production of urea, which is the product of an enzymatic pathway only present in hepatocytes and which is not found in any hepatic tumor cell lines.

In Vitro Toxicology and Drug Testing

Hepatocytes, the major cell type comprising the liver, perform the important task of metabolizing or detoxifying drug compounds that enter the body. This is accomplished primarily through cytochrome P450 enzymes that are abundantly expressed in hepatocytes. Therefore, hepatocytes grown in-vitro have application for the rapid screening of multiple drug candidates to predict their potential liver toxicity and liver-specific pharmacological characteristics prior to clinical testing.

We believe the ability of the PICM-19 Cell Line, which is also concurrently being tested by us for use in an artificial liver device, to differentiate into either hepatocytes or bile duct cells (two key cell types of the liver) and to synthesize liver specific proteins, such as albumin and transferrin, as well as display enhanced liver-specific functions, such as ureagenesis and cytochrome P450 activity, could be important to the development of in-vitro toxicological and pre-clinical drug testing platforms that could more accurately determine the potential toxicity and metabolism of new pharmacological compounds in the liver.

According to FDA recommendations, all drugs and newly developed chemicals require rigorous toxicity testing before approval can be granted. Since the liver is the primary site of chemical detoxification as well as the tissue where many compounds are activated into highly toxic substances, much attention has been placed upon development of an in-vitro model liver system for drug testing. Currently available test systems utilize either cells isolated from rat, pig or human livers or use available tumor cell lines or proprietary modified tumor cell lines. Ultimately, these systems lack either stability, reproducibility (primary cell isolates) or the ability to fully represent the complete set of hepatic functions (tumor cell lines). These drawbacks do not appear to exist with the PICM-19 cell line as these cells were naturally derived from porcine embryonic stem cells and have demonstrated functional stability in long term culture.

Cell-based Vaccine Production

A successful cell-culture based avian flu vaccine has the potential to reduce production time compared to traditional vaccine production methods and should allow rapid expansion of vaccine production in the face of a pandemic. Traditional production methods use embryonated hens' eggs, which requires extensive planning for the

millions of eggs necessary in the case of exponentially increasing demand. Additionally, risks associated with impurities in eggs (antibiotics and other viruses), which may cause sterility problems, and allergies against egg albumin, could be avoided.

Current vaccine production, which is based on decades old technology, involves injecting a small amount of a targeted virus into fertilized chicken eggs, where the virus multiplies. After the virus is harvested from the eggs, chemicals inactivate and purify the virus, which is then blended into a vaccine and bottled in vials. This production method takes at least six months.

In the event of a flu pandemic, it is unlikely that current egg-based vaccines will be produced fast enough to meet expected demand due to the lengthy production time. Additionally, vaccines go stale quickly, and small changes in a virus's makeup can render them useless. Transferring production to a cell-culture based system may avoid these problems and reduce lot to lot variation in vaccine efficacy and potency.

We are working towards optimizing the functionality of an embryonic chicken cell line and subclones thereof, which we refer to as the PBS-1 Cell Line. The PBS-1 Cell Line was licensed from the Michigan State University. Thus far, we have demonstrated that cells from the PBS-1 Cell Line are is capable of growing a variety of virus strain and is free of pathogens, diseases, bacteria, and potentially harmful viruses.

Based upon our assessment of the information and data obtained in connection with our ongoing sponsored research efforts, we believe the PBS-1 Cell Line has the required attributes to address the need for an appropriately defined cell line for use in vaccine production. Key among these attributes is the PBS-1 Cell Line s ability to grow a variety of avian virus including, but not limited to Mareks disease virus and Newcastle disease virus. In addition independent third-party analysis confirmed that the PBS-1 cells are free from exogenous agents, bacteria and fungi**.** Pathogen-free cells are critical for the rapid development of novel, cell-culture based vaccine production and address released recommendations in the US Food and Drug Administration s (FDA) Draft Guidance for Industry for the safe and effective development of a new generation of cell-based vaccines.

There is no assurance that we will achieve all or any of our goals.

Due to the "start up" nature of our business, we expect to incur losses as we continue conducting our ongoing sponsored research and product development programs. We will require additional funding to continue our research and product development programs, to conduct preclinical studies and clinical trials, for operating expenses, to pursue regulatory approvals for our product candidates, for the costs involved in filing and prosecuting patent applications and enforcing or defending patent claims, if any, for any possible acquisitions or new technologies, and we may

require additional funding to establish manufacturing and marketing capabilities in the future. We may seek to access the public or private equity markets whenever conditions are favorable. We may also seek additional funding through strategic alliances and other financing mechanisms. We cannot assure you that adequate funding will be available on terms acceptable to us, if at all. If adequate funds are not available, we may be required to curtail significantly one or more of our research or development programs or obtain funds through arrangements with collaborators or others. This may require us to relinquish rights to certain of our technologies or product candidates. To the extent that we are unable to obtain third-party funding for such expenses, we expect that increased expenses will result in increased losses from operations. We cannot assure you that we will successfully develop our products under development or that our products, if successfully developed, will generate revenues sufficient to enable us to earn a profit.

Related Party Transactions

Management Fees: During the year ended December 31, 2006, the Company paid management fees of $10,800 (2005: $11,300, 2004: $9,500) to the directors. There is no management or consulting agreement in effect nor is there an agreement in place to convert debt to equity. Included in accounts payable related parties at December 31, 2006 are management fees of $nil (2005: $27,000).

Notes Payable and Accrued Interest: During the year ended December 31, 2006, the Company made a partial repayment of $140,000 to the outstanding notes payable. As of December 31, 2006, notes payable of $1,010,000 was made up from unsecured loans of $110,000, $700,000 and $200,000, all bearing interest at the rate of 8.50%,

due to a director and major shareholder of the Company. The entire amounts of principal and interest accrued are due and payable on demand. Accrued and unpaid interest on these notes at December 31, 2006, amounted to $153,829 (2005: $78,301).

Rent: The Company s administrative office is located at 1628 West 1st Avenue, Suite 216, Vancouver, British Columbia, Canada, V6J 1G1. These premises are owned by a private corporation controlled by a director and majority shareholder. The Company pays a monthly rent of C$3,200 effective from April 1, 2006. The Company paid rent of $29,680 (2005: $nil, 2004: $nil) for the year ended December 31, 2006.

Mr. Harmel S. Rayat is an officer, director and majority stockholder of the Company. He is also an officer, director and stockholder of each of PhytoMedical Technologies, Inc., Entheos Technologies, Inc., Octillion Corp. and International Energy, Inc.

All related party transactions are recorded at the exchange amount established and agreed to between related parties and are in the normal course of business.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Our exposure to market risk is confined to our cash equivalents and short-term investments. We invest in high-quality financial instruments; primarily money market funds, federal agency notes, and US Treasury obligations, with the effective duration of the portfolio within one year which we believe are subject to limited credit risk. We currently do not hedge interest rate exposure. Due to the short-term nature of our investments, we do not believe that we have any material exposure to interest rate risk arising from our investments.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA.

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Notes to the Financial Statements

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors

HepaLife Technologies, Inc.

Boston, Massachusetts

We have audited the accompanying consolidated balance sheets of HepaLife Technologies, Inc. and Subsidiary (a development stage company) as of December 31, 2006 and 2005, and the related consolidated statements of operations, stockholders' deficiency, and cash flows for the years ended December 31, 2006, 2005, and 2004, and for the period from October 21, 1997 (date of inception) to December 31, 2006. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits. The financial statements for the period from October 21, 1997 (date of inception) through December 31, 2003, were audited by other auditors whose report, dated March 15, 2004, expressed an unqualified opinion (modified for going concern uncertainties). Those financial statements showed an accumulated deficit for the period of $2,312,158. The other auditors' report has been furnished to us, and our opinion, insofar as it relates to the amounts included for such prior periods, is based solely on the report of such other auditors.

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

In our opinion, based on our audits and the report of other auditors, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of HepaLife Technologies, Inc. and Subsidiary (a development stage company) as of December 31, 2006 and 2005, and the results of their operations and their cash flows for the years ended December 31, 2006, 2005, and 2004, and for the period from October 21, 1997 (date of

inception) to December 31, 2006, in conformity with accounting principles generally accepted in the United States.

The accompanying financial statements have been prepared assuming the Company will continue as a going concern. As discussed in Note 1 to the financial statements, the Company has experienced recurring losses from operations since inception, has a working capital deficit, and has a deficit accumulated during the development stage. These conditions raise substantial doubt about the Company's ability to continue as a going concern. Management's plans regarding these matters are also described in Note 1. The financial statements do not include any adjustments that might result from the outcome of this uncertainty.

/S/ PETERSON SULLIVAN PLLC

March 30, 2007

Seattle, Washington

HEPALIFE TECHNOLOGIES, INC. AND SUBSIDIARY

(A Development Stage Company)

CONSOLIDATED BALANCE SHEETS

December 31, 2006 and 2005

(Expressed in U.S. Dollars)	**2006**	**2005**
ASSETS		
Current assets		
Cash	$252,887	$107,263
Prepaid expenses	3,775	-
Total current assets	256,662	107,263
Equipment, net (Note 7)	23,259	5,674
Total assets	$279,921	$112,937
LIABILITIES		
Current		
Accounts payable and accrued liabilities	$170,077	$106,237
Accounts payable - related parties (Note 4)	158,535	106,357
Notes payable - related party (Note 4)	1,010,000	1,150,000
Total liabilities	1,338,612	1,362,594
STOCKHOLDERS' EQUITY		
Stockholders' Deficiency		
Preferred stock: $0.10 par value; Authorized: 1,000,000		
Issued and outstanding: none	-	-
Common stock: $0.001 par value; Authorized: 300,000,000		

Issued and outstanding: 72,768,844 (2005: 70,064,430)	72,769	70,065
Additional paid-in capital	10,084,412	5,241,651
Loss accumulated during the development stage	(11,215,872)	(6,561,373)
Total stockholders' deficiency	(1,058,691)	(1,249,657)
Total liabilities and stockholders' deficiency	$279,921	$112,937

(The accompanying notes are an integral part of these consolidated financial statements)

HEPALIFE TECHNOLOGIES, INC. AND SUBSIDIARY
(A Development Stage Company)

CONSOLIDATED STATEMENTS OF OPERATIONS
For the years ended December 31, 2006, 2005 and 2004
and from inception (October 21, 1997) to December 31, 2006

(Expressed in U.S. Dollars)	2006	2005	2004	From inception (October 21, 1997) to December 31, 2006
Revenue	$-	$-	$-	$-
Expenses				
Administrative and general	$132,486	$66,887	$92,269	$421,772
Depreciation	6,528	1,074	261	11,334
Interest on promissory note - related party	93,833	80,546	39,021	233,066
Interest, bank charges and foreign exchange loss	10,603	2,819	925	15,985
Professional fees- accounting and legal	164,564	161,554	12,139	407,628
Management and consulting fees (Note 4)	36,166	29,925	9,500	975,405
Research and development (Notes 5 and 6)	302,618	261,691	151,546	848,755
Salary and benefits	299,609	30,185	26,352	356,146
Shareholder and investor relations	451,373	696,282	1,016,916	3,244,074
Stock offering costs	505,917	1,420,796	-	1,926,713
Transfer agent and filing	3,767	906	637	11,389
Travel	52,772	65,400	87,968	206,140
Stock based compensation expenses (Note 10)	2,607,302	-	-	2,607,302
	4,667,538	2,818,065	1,437,534	11,265,709

Operating Loss	(4,667,538)	(2,818,065)	(1,437,534)	(11,265,709)
Other income and expenses				
Interest income	13,039	4,463	1,921	49,837
	13,039	4,463	1,921	49,837
Net loss available to common shareholders	$(4,654,499)	$(2,813,602)	$(1,435,613)	$(11,215,872)
Loss per share - basic and diluted	$(0.07)	$(0.04)	$(0.02)	
Weighted average number of common shares				
outstanding - basic and diluted	71,449,018	69,314,822	64,610,777	

(The accompanying notes are an integral part of these consolidated financial statements)

HEPALIFE TECHNOLOGIES, INC. AND SUBSIDIARY

(A Development Stage Company)

CONSOLIDATED STATEMENT OF STOCKHOLDERS' DEFICIENCY

from inception (October 31, 1997) to December 31, 2006

	Common Stock		Additional	Loss accumulated during development	Total stockholders'
(Expressed in U.S. Dollars)	Shares	Amount	paid-in capital	stage	equity (deficiency)
Common stock issued for service rendered at $0.00025 per share, October 21, 1997	12,000,000	$12,000	$(9,000)	$-	$3,000
Common stock issued for cash at $0.0625 per share during 1997	1,200,000	1,200	73,800	-	75,000
Comprehensive income					
Income from inception (October 21, 1997) to December 31, 1997	-	-	-	42	42
Balance, December 31, 1997	13,200,000	13,200	64,800	42	78,042
Common stock issued for service rendered at $0.025 per share, December 15, 1998	16,000,000	16,000	384,000	-	400,000
Comprehensive income (loss)					
Loss, year ended December 31, 1998	-	-	-	(471,988)	(471,988)

Balance, December 31, 1998	29,200,000	29,200	448,800	(471,946)	6,054
Common stock issued for cash at $0.025 per share, March 1999	12,000,000	12,000	288,000	-	300,000
Comprehensive income (loss)					
Loss, year ended December 31, 1999	-	-	-	(121,045)	(121,045)
Balance, December 31, 1999	41,200,000	41,200	736,800	(592,991)	185,009
Comprehensive income (loss)					
Loss, year ended December 31, 2000	-	-	-	(80,608)	(80,608)
Balance, December 31, 2000	41,200,000	41,200	736,800	(673,599)	104,401
Conversion of debt to equity at $0.015 per share, July 31, 2001	8,933,332	8,933	125,067	-	134,000
Comprehensive income (loss)					
Loss, year ended December 31, 2001	-	-	-	(160,364)	(160,364)
Balance, December 31, 2001	50,133,332	50,133	861,867	(833,963)	78,037
Common stock issued for services at $0.06 per share, April 23, 2002	10,000	10	590	-	600
Conversion of debt to equity at $0.05 per share, April 26, 2002	2,160,000	2,160	105,840	-	108,000
Common stock issued for investor relations services at $0.05 per share, July 25, 2002	2,390,000	2,390	117,110	-	119,500

Conversion of debt to equity at $0.05 per share, December 18, 2002	1,920,000	1,920	94,080	-	96,000

Comprehensive income (loss)					
Loss, year ended December 31, 2002	-	-	-	(375,472)	(375,472)
Balance, December 31, 2002	56,613,332	56,613	1,179,487	(1,209,435)	26,665
Common stock issued pursuant to exercise of stock options during the year at between $0.07 to $2.11 per share	282,500	283	398,317	-	398,600
Common stock issued pursuant to exercise of share purchase warrants in November 2003 at $0.025 per share	7,300,000	7,300	175,200	-	182,500
Comprehensive income (loss)					
Loss, year ended December 31, 2003	-	-	-	(1,102,723)	(1,102,723)
Balance, December 31, 2003	64,195,832	64,196	1,753,004	(2,312,158)	(494,958)
Common stock issued pursuant to exercise of stock options during the year between $0.07 to $2.11 per share	1,622,000	1,622	1,339,998	-	1,341,620
Common stock issued pursuant to exercise of share purchase warrants in December 2004 at $0.025 per share	2,000,000	2,000	48,000	-	50,000

Comprehensive income (loss)					
Loss, year ended December 31, 2004	-	-	-	(1,435,613)	(1,435,613)
Balance, December 31, 2004	67,817,832	67,818	3,141,002	(3,747,771)	(538,951)
Common stock issued pursuant to exercise of stock options in March 2005 at $3.10 per share	50,000	50	154,950	-	155,000
Common stock issued pursuant to exercise of stock options in May 2005 at $2.11 per share	45,000	45	94,905	-	94,950
Common stock issued pursuant to exercise of stock options in June 2005 at $2.11 per share	100,000	100	210,900	-	211,000
Common stock issued pursuant to exercise of stock options in October 2005 at $2.11 per share	40,000	40	84,360	-	84,400
Common stock issued pursuant to exercise of stock options in March 2005 at $2.11 per share	50,000	50	105,450	-	105,500
Common stock issued pursuant to exercise of share purchase warrants in March 2005 at $0.025 per share	1,250,000	1,250	30,000	-	31,250
Restricted common stock issued in June 2005 pursuant to share purchase agreement	20,000	20	37,580	-	37,600

Restricted common stock issued in July 2005 pursuant to share purchase agreement	691,598	692	1,382,504	-	1,383,196
Comprehensive income (loss)					
Loss, year ended December 31, 2005				(2,813,602)	(2,813,602)
Balance, December 31, 2005	70,064,430	70,065	5,241,651	(6,561,373)	(1,249,657)

Restricted common stock issued in January 2006 pursuant to share purchase agreement	374,753	375	505,542	-	505,917
Common stock issued in the first quarter of 2006 to Fusion Capital for cash	431,381	431	449,569		450,000
Common stock issued in the second quarter of 2006 to Fusion Capital for cash	416,303	416	329,584		330,000
Common stock issued in the third quarter of 2006 to Fusion Capital for cash	758,606	759	584,234		584,993
Common stock issued in the fourth quarter of 2006 to Fusion Capital for cash	548,371	548	354,455		355,003
Exercise of stock options	175,000	175	12,075		12,250
Stock based compensation expenses	-	-	2,607,302	-	2,607,302
Comprehensive income (loss)					
Loss, year ended December 31, 2006				(4,654,499)	(4,654,499)
Balance, December 31, 2006	72,768,844	$72,769	$10,084,412	$(11,215,872)	$(1,058,691)

(The accompanying notes are an integral part of these consolidated financial statements)

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HEPALIFE TECHNOLOGIES, INC. AND SUBSIDIARY
(A Development Stage Company)

CONSOLIDATED STATEMENTS OF CASH FLOWS
for the years ended December 31, 2006, 2005 and 2004
and from inception (October 21, 1997) to December 31, 2006

(Expressed in U.S. Dollars)	2006	2005	2004	From inception (October 21, 1997) to December 31, 2006
Cash flows from operating activities				
Reconciliation of net loss to net cash used in operating activities	$(4,654,499)	$(2,813,602)	$(1,435,613)	$(11,215,872)
Adjustments for items not involving cash:				
Depreciation	6,528	1,074	261	11,334
Common stock issued for services	-	-	-	861,100
Common stock issued as stock offering costs	505,917	1,420,796	-	1,926,713
Stock compensation expenses	2,607,302	-	-	2,607,302
Change in assets and liabilities				
Increase in prepaid expenses	(3,775)	-	-	(3,775)
Increase in accounts payable	63,840	5,994	18,084	170,077
Increase in accounts payable - related party	52,178	53,298	53,059	158,535
Net cash used in operating activities	(1,422,509)	(1,332,440)	(1,364,209)	(5,484,586)
Cash flows from investing activities				
Purchase of equipment	(24,113)	(5,920)	(1,089)	(34,593)

Net cash used in investing activities	(24,113)	(5,920)	(1,089)	(34,593)
Cash flows from financing activities				
Proceed from issuance of common stock, net	1,732,246	682,100	1,391,620	4,762,066
Net proceeds from (Repayment of) promissory notes	(140,000)	150,000	275,000	1,010,000
Net cash used in financing activities	1,592,246	832,100	1,666,620	5,772,066
Increase (decrease) in cash and cash equivalents	145,624	(506,260)	301,322	252,887
Cash and cash equivalents, beginning of period	107,263	613,523	312,201	-
Cash and cash equivalents, end of period	$252,887	$107,263	$613,523	$252,887
Supplemental disclosure of cash flow information:				
Interest paid in cash	$19,736	$-	$51,909	$71,645
Income tax paid in cash	$-	$-	$-	$-
Non-cash Investing and Financing Activities:				
Common stock issued for services	$-	$-	$-	$861,100
Issuance of common stock as stock offering costs	$505,917	$1,420,796	$-	$1,926,713

(The accompanying notes are an integral part of these consolidated financial statements)

HEPALIFE TECHNOLOGIES, INC.

(A Development Stage Company)

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2006 AND 2005

(Expressed in US Dollars)

NOTE 1 BASIS OF PRESENTATION GOING CONCERN UNCERTAINITIES

HepaLife Technologies, Inc. (formerly Zeta Corporation) (the Company) was incorporated under the laws of the State of Florida on October 21, 1997, with an authorized capital of 100,000,000 shares of common stock, par value of $0.001 per share, and 1,000,000 shares of $0.10 par value preferred stock, which may be divided into series with the rights and preferences of the preferred stock to be determined by the Board of Directors. On August 10, 2001, Articles of Amendment to the Articles of Incorporation were filed in the State of Florida to increase the authorized capital stock of the Company to 300,000,000 shares of $0.001 par value common stock.

The Company is a development stage biotechnology company focused on the identification, development and eventual commercialization of cell-based technologies and products. Current cell-based technologies under development by the Company include 1) the first-of-its-kind artificial liver device, 2) proprietary in-vitro toxicology and pre-clinical drug testing platforms, and 3) cell-culture based vaccines to protect against the spread of influenza viruses among humans, including potentially the high pathogenicity H5N1 virus.

The Company has incurred net operating losses since inception. The Company faces all the risks common to companies in their early stages of development, including under capitalization and uncertainty of funding sources, high initial expenditure levels, uncertain revenue streams, and difficulties in managing growth. The Company s recurring losses raise substantial doubt about its ability to continue as a going concern. The Company s financial statements do not reflect any adjustments that might result from the outcome of this uncertainty. The Company expects to incur losses from its business operations and will require additional funding during 2007. The future of the Company hereafter will depend in large part on the Company s ability to successfully raise capital from external sources to pay for planned expenditures and to fund operations.

To meet these objectives, the Company has arranged a Common Stock Purchase Agreement with Fusion Capital Fund II, LLC to purchase from the Company up to $15,000,000 of the Company s common stock over a thirty month period (Note 8). Management believes that its current and future plans enable it to continue as a going concern. The Company's ability to achieve these objectives cannot be determined at this time. These financial statements do not give effect to any adjustments which would be necessary should the Company be unable to continue as a going concern and therefore be required to realize its assets and discharge its liabilities in other than the normal course of business and at amounts different from those reflected in the accompanying financial statements.

NOTE 2 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

(a) Principles of Accounting

These financial statements are stated in U.S. Dollars and have been prepared in accordance with accounting principles generally accepted in the United States of America.

(b) Principles of Consolidation

The accompanying consolidated financial statements have been prepared on the accrual basis in accordance with accounting principles generally accepted in the United States, and include the accounts of HepaLife Technologies, Inc. and its 85% owned subsidiary, Phoenix BioSystems, Inc. (PBS), which was incorporated under the laws of the State of Nevada on June 6, 2006. All significant intercompany transactions and accounts have been eliminated in consolidation.

(c) Use of Estimates

The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Management makes its best estimate of the ultimate outcome for these items based on historical trends and other information available when the financial statements are prepared. Changes in estimates are recognized in accordance with the accounting rules for the estimate, which is typically in the period when new information becomes available to management. Actual results could differ from those estimates.

(d) Cash and Cash Equivalents

The Company considers all highly liquid instruments purchased with an original maturity of three months or less to be cash equivalents. The Company did not have any cash equivalents for the year ended December 31, 2006 and 2005. The Company occasionally has cash deposits in excess of insured limits.

(e) Equipment and Depreciation

Equipment is initially recorded at cost and is depreciated under the straight-line method over their estimated useful life as follows:

Computer equipment - 2 years

Furniture and fixture - 8 years

Repairs and maintenance expenses are charged to operations as incurred.

(f) Research and Development Costs

Research and development costs are expensed as incurred.

(g) Start-up Costs

The Company accounts for start-up costs in accordance with Statement of Position (SOP) 98-5, *Reporting on the Costs of Start-up Activities* , where they are expensed as incurred. For income tax purposes, the Company has elected to treat its organizational costs as deferred expenses and amortize them over a period of sixty months, beginning in the first month the Company is actively in business.

(h) Income Taxes

The Company accounts for income taxes under the provisions of Statement of Financial Accounting Standard (or "SFAS") No. 109, *Accounting for Income Taxes.* Under SFAS No. 109, deferred income tax assets and liabilities are computed for differences between the financial statements and tax bases of assets and liabilities that will result in taxable or deductible amounts in the future, based on enacted tax laws and rates applicable to the periods in which the differences are expected to affect taxable income. Valuation allowances are established when necessary, to reduce deferred income tax assets to the amount expected to be realized.

(i) Earnings (Loss) Per Share

Basic earnings (loss) per share is based on the weighted average number of common shares outstanding. Diluted earnings (loss) per share is based on the weighted average number of common shares outstanding and dilutive common stock equivalents. Basic earnings (loss) per share is computed by dividing income/loss (numerator) applicable to common stockholders by the weighted average number of common shares outstanding (denominator) for the period. All earnings (loss) per share amounts in the financial statements are basic earnings or loss per share, as defined by SFAS No. 128, *Earnings Per Share.* Diluted earnings (loss) per share does not differ materially from basic earnings (loss) per share for all periods presented. Convertible securities that could potentially dilute basic earnings per share in the future, such as options and warrants, are not included in the computation of diluted earnings or loss per share because to do so would be antidilutive. All per share information is adjusted retroactively to reflect stock splits and changes in par value.

(j) Advertising Expenses

The Company expenses advertising costs as incurred. The Company did not incur any advertising costs during the years ended December 31, 2006, 2005 and 2004.

(k) Stock-Based Compensation

On January 1, 2006, the Company adopted the fair value recognition provisions of FAS No. 123(R), Share-Based Payment, (FAS 123R). Prior to January 1, 2006, the Company accounted for stock-based payments under the recognition and measurement provisions of APB Opinion No. 25, Accounting for Stock Issued to Employees (APB 25), and related Interpretations, as permitted by FAS No. 123, Accounting for Stock-Based Compensation (FAS 123 . In accordance with APB 25, no compensation cost was required to be recognized for options granted that had an exercise price equal to the market value of the underlying common stock on the date of grant.

The Company adopted FAS 123R using the modified-prospective transition method. Under that transition method, compensation cost recognized for the year ended December 31, 2006 and thereafter will include: (a) compensation costs for all share-based payments granted prior to, but not yet vested as of January 1, 2006, based on the grant-date fair value estimated in accordance with the original provisions of FAS 123, and (b) compensation cost for all share-based payments granted subsequent to January 1, 2006, based on the grant-date fair value estimated in accordance with the provisions of FAS 123R. The financial results for the prior periods have not been restated. The Company will amortize stock compensation cost ratable over the requisite service period.

Had compensation expense for the Company s stock-based compensation plans been determined under SFAS No. 123, based on the fair market value at the grant dates, the Company s pro-forma net loss and pro-forma net loss per share would have been reflected as follows:

	2005	2004
Net loss as reported:	$(2,813,602)	$(1,435,613)
Stock-based employee compensation expense as determined under the fair value based method	(10,531,993)	(901,242)
Pro-forma, net loss	$(13,345,595)	$ (2,336,855)

Net loss per share - basic and diluted:		
As reported	$ (0.04)	$ (0.02)
Pro-forma	$ (0.19)	$ (0.04)

The weighted average fair value of options granted in 2005 was estimated at $1.72 by using the Black-Scholes Option Pricing Model with the following weighted average assumptions: dividend yield of 0%, expected volatility of 95.6%, risk-free interest rate of 3.5%, and expected lives of three years.

The Black-Scholes option valuation model was developed for use in estimating the fair value of traded options which have no vesting restrictions and are fully transferable. In addition, option valuation models require the input of highly subjective assumptions, including the expected stock price volatility. Because the Company's employee stock options have characteristics significantly different from those of traded options, and because changes in the subjective input assumptions can materially affect the fair value estimate, the existing model may not necessarily provide a reliable measure of the fair value of its stock options.

(l) Comprehensive Income

The Company adopted SFAS No. 130, *"Reporting Comprehensive Income*", which establishes standards for reporting and display of comprehensive income, its components and accumulated balances. The Company is disclosing this information on its Statements of Stockholders' Equity (Deficiency). Comprehensive income comprises equity changes except those resulting from investments by owners and distributions to owners.

(m) Foreign Currency Translation

The Company maintains both U.S. Dollar and Canadian Dollar bank accounts at a financial institution in Canada. Foreign currency transactions are translated into their functional currency, which is U.S. Dollar, in the following manner:

At the transaction date, each asset, liability, revenue and expense is translated into the functional currency by the use of the exchange rate in effect at that date. At the period end, monetary assets and liabilities are translated into U.S. Dollars by using the exchange rate in effect at that date. Transaction gains and losses that arise from exchange rate fluctuations are included in the results of operations.

(n) Intangible Assets

The Company adopted SFAS No. 142, *Goodwill and Other Intangible Assets* as of January 1, 2002, which presumes that goodwill and certain intangible assets have indefinite useful lives. Accordingly, goodwill and certain intangibles will not be amortized but rather will be tested at least annually for impairment. SFAS No. 142 also addresses accounting and reporting for goodwill and other intangible assets subsequent to their acquisition.

The Company has not had any goodwill or intangible assets with indefinite or definite lives since its inception.

(o) Impairment of Long-Lived Assets

Long-lived assets of the Company are reviewed for impairment when changes in circumstances indicate their carrying value has become impaired, pursuant to guidance established in the SFAS No 144, *Accounting for the Impairment or Disposal of Long-Lived Assets*. Management considers assets to be impaired if the carrying amount of an asset exceeds the future projected cash flows from related operations (undiscounted and without interest charges). If impairment is deemed to exist, the asset will be written down to fair value, and a loss is recorded as the difference between the carrying value and the fair value. Fair values are determined based on quoted market values, discounted cash flows or internal and external appraisals, as applicable. Assets to be disposed of are carried at the lower of carrying value or estimated net realizable value.

(p) Fair Value of Financial Instruments

The determination of fair value of financial instruments is made at a specific point in time, based on relevant information about financial markets and specific financial instruments. As these estimates are subjective in nature, involving uncertainties and matters of significant judgement, they cannot be determined with precision. Changes in assumptions can significantly affect estimated fair values. The carrying value of cash and accounts payable, accrued liabilities and notes payable approximates their fair value because of the short-term nature of these instruments. The Company places its cash with high credit quality financial institutions.

(q) Accounting for Derivative Instruments and Hedging Activities

The Company adopted SFAS No. 133, *Accounting for Derivative Instruments and Hedging Activities,* which requires companies to recognize all derivatives contracts as either assets or liabilities in the balance sheet and to measure them at fair value. If certain conditions are met, a derivative may be specifically designated as a hedge, the objective of which is to match the timing of gain or loss recognition on the hedging derivative with the recognition of (i) the changes in the fair value of the hedged asset or liability that are attributable to the hedged risk or (ii) the earnings effect of the hedged forecasted transaction. For a derivative not designated as a hedging instrument, the gain or loss is recognized in income in the period of change.

The Company has not entered into derivative contracts either to hedge existing risks or for speculative purposes.

(r) Related Party Transactions

A related party is generally defined as (i) any person that holds 10% or more of the Company s securities and their immediate families, (ii) the Company s management, (iii) someone that directly or indirectly controls, is controlled by or is under common control with the Company, or (iv) anyone who can significantly influence the financial and operating decisions of the Company. A transaction is considered to be a related party transaction when there is a transfer of resources or obligations between related parties. (See Note 4).

(s) Stock Offering Costs

As discussed in Note 8, the fair value of stock issued to Fusion Capital under the stock purchase agreement has been expensed in the year the stock was issued because the agreement can be terminated without requiring the stock to be returned.

(t) New Accounting Pronouncements

In June 2006, the Financial Accounting Standards Board (FASB) issued FASB Interpretation No. 48, *Accounting for Uncertainties in Income Taxes*, (FIN 48). FIN 48 clarifies the accounting for uncertainty in income taxes and prescribes a recognition threshold and measurement attribute for the financial statement recognition and measurement of a tax position taken or expected to be taken in a tax return. FIN 48 is effective for financial statements as of December 15, 2006. The adoption of FIN 48 is expected to have no impact on the Company's financial statements.

In September 2006, the FASB issued Statement of Financial Accounting Standards No. 157, *Fair Value Measurements* (FAS 157). FAS 157 defines fair value, establishes a framework for measuring fair value and expands disclosures about fair value measurements but does not require any new fair value measurements. FAS 157 is effective for financial statements issued for fiscal years beginning after November 15, 2007, and interim periods within those fiscal years. The Company has not yet determined the impact of applying FAS 157.

In September 2006, the FASB issued Statement of Financial Accounting Standards No. 158, *Employers Accounting for Defined Benefit Pension and Other Postretirement Plans*, (FAS 158). FAS 158 requires an employer to recognize the overfunded or underfunded status of a defined benefit postretirement plan (other than a multiemployer plan) as an asset or liability in its statement of financial position and to recognize changes in that funded status in the year in which the changes occur through comprehensive income. FAS 158 is effective for financial statements as of December 31, 2006. The adoption of FAS No. 158 is expected to have no impact on the Company's financial statements.

NOTE 3 - LOSS PER SHARE

Basic earnings or loss per share is based on the weighted average number of common shares outstanding. Diluted earnings or loss per share is based on the weighted average number of common shares outstanding and dilutive common stock equivalents. The computation of earnings (loss) per share is net loss available to common stockholders

(numerator) divided by the weighted average number of common shares outstanding (denominator) during the periods presented. All earnings or loss per share amounts in the financial statements are basic earnings or loss per share, as defined by SFAS No. 128, Earnings Per Share. Diluted loss per share does not differ materially from basic loss per share for all periods presented. Convertible securities that could potentially dilute basic loss per share in the future are not included in the computation of diluted loss per share because to do so would be antidilutive. All per share and per share information are adjusted retroactively to reflect stock splits and changes in par value, when applicable.

NOTE 4 RELATED PARTY TRANSACTIONS

Management Fees: During the year ended December 31, 2006, the Company paid management fees of $10,800 (2005: $11,300, 2004: $9,500) to the directors. There is no management or consulting agreement in effect nor is there an agreement in place to convert debt to equity. Included in accounts payable related parties at December 31, 2006 are management fees of $nil (2005: $27,000).

Notes Payable and Accrued Interest: During the year ended December 31, 2006, the Company made a partial repayment of $140,000 to the outstanding notes payable. As of December 31, 2006, notes payable of $1,010,000 was made up from unsecured loans of $110,000, $700,000 and $200,000, all bearing interest at the rate of 8.50%, due to a director and major shareholder of the Company. The entire amounts of principal and interest accrued are due and payable on demand. Accrued and unpaid interest on these notes at December 31, 2006, amounted to $153,829 (2005: $78,301).

Rent: The Company s administrative office is located at 1628 West 1st Avenue, Suite 216, Vancouver, British Columbia, Canada, V6J 1G1. These premises are owned by a private corporation controlled by a director and

majority shareholder. The Company pays a monthly rent of C$3,200 effective from April 1, 2006. The Company paid rent of $29,680 (2005: $nil, 2004: $nil) for the year ended December 31, 2006.

Mr. Harmel S. Rayat is an officer, director and majority stockholder of the Company. He is also an officer, director and stockholder of each of PhytoMedical Technologies, Inc., Entheos Technologies, Inc., Octillion Corp. and International Energy, Inc.

All related party transactions are recorded at the exchange amount established and agreed to between related parties and are in the normal course of business.

NOTE 5 COOPERATIVE AGREEMENT

On November 1, 2002, the Company entered into a Cooperative Research and Development Agreement (the Agreement) with the United States Department of Agriculture s (USDA) Agricultural Research Service (ARS), a committed a total payment of $292,727 to ARS over the two year period, ending February 19, 2005.

On May 24, 2004, the Agreement was extended to September 30, 2007, and the required total payments to ARS were amended to $807,828, of which $153,600 had already been paid under the original agreement. The revised schedule of payments is as follows:

- $65,422.80 on or before 8/1/04 (paid in 2004);
- $65,422.80 on or before 11/1/04 (paid in June 2005);
- $65,422.80 on or before 2/1/05 (paid in October 2005);
- $65,422.80 on or before 5/1/05 (paid in October 2005);
- $65,422.80 on or before 8/1/05 (paid in December 2005);
- $65,422.80 on or before 11/1/05 (paid in March 24, 2006);
- $65,422.80 on or before 2/1/06 (paid in June 6, 2006);
- $65,422.80 on or before 5/1/06 (paid in November 16, 2006);

- $65,422.80 on or before 8/1/06 (included in accounts payable); and

- $65,422.80 on or before 11/1/06 (included in accounts payable).

As of December 31, 2006, total payments of $807,828 have been paid/accrued.

As amended, the Company, instead of ARS as in the original agreement, has the first option to prepare and prosecute patent or Plant Variety Protection Certificate applications, foreign and domestic, on subject invention owned or co-owned by the U.S Government, subject to certain conditions.

The agreement is for the purpose of funding salaries, equipment, travel and other indirect costs of one post-doctoral researcher, one support scientist, and one technician. The terms of the agreement require the interaction of the Company with ARS personnel on the technical details involved with pig liver cell culture development, providing the necessary funds for the purpose above, preparing and filing any patent applications, and reviewing reports and implementing procedures for the development of an artificial liver device utilizing the pig liver cell line. ARS s responsibilities include hiring the post-doctoral research associate for a two-year period, providing laboratory and office space for the research associate, providing experimental animals (pigs) and slaughter facilities, conducting the research, preparing progress reports on project objectives, and preparing and submitting technical reports for publication.

All rights, title, and interest in any subject invention made solely by ARS employees are owned by ARS, solely by the Company are owned by the Company, and owned jointly between the Company and ARS if made jointly by ARS and the Company. The Company is granted an option to negotiate an exclusive license in each subject invention owned or co-owned by ARS for one or more field (s) of use encompassed by the Agreement. The option terminates when the Company fails to (1) submit a complete application for an exclusive license within sixty days of being notified by ARS of an invention availability for licensing or (2) submit a good faith written response to a written proposal of licensing terms within forty five days of such proposal.

The Agreement, or parts thereof, is subject to termination at any time by mutual consent. Either party may unilaterally terminate the entire Agreement at any time by giving the other party written notice not less than sixty calendar days prior to the desired termination date.

NOTE 6 LICENSE AGREEMENT

On June 15, 2006, the Company, through its wholly-owned subsidiary, Phoenix BioSystems, Inc. (PBS), entered into an exclusive worldwide license agreement with Michigan State University (MSU) for the development of new cell-culture based flu vaccines to protect against the spread of influenza viruses among humans, including potentially the high pathogenicity H5N1 virus.

The license agreement gives the Company exclusive rights to five issued patents. Under the terms of the license agreement, the Company agreed to pay MSU an initial fee of $1,000 (paid) upon execution of the license agreement. A 2.5% annual royalty based on future sales is payable, with an annual minimum payment of $10,000 from 2010 to 2014 and $20,000 from 2015 onwards.

The Company also has to make milestone payments of $1,000, $2,000, $2,000 and $10,000 to MSU when MSU achieves each of the 4 different developmental steps, respectively.

As part of the license agreement, the Company issued 17,650 common shares or 15% of the total issued and outstanding shares of PBS, a subsidiary of the Company, to Dr. Paul Coussens at par value on October 2, 2006. After issuance of the shares, the Company holds 85% of the total issued and outstanding shares of PBS. The Company recorded the fair value of the shares of PBS issued to Dr. Paul Coussens at a nominal value.

As of December 31, 2006, total payment of $40,927 has been paid in relation to the project, including the reimbursement of research expenses of $32,426 to MSU.

NOTE 7 EQUIPMENT

	2006	2005
Computer equipment	$33,504	$9,392
furniture and fixtures	1,089	1,089
	34,593	10,481
Less: accumulated depreciation	(11,334)	(4,807)

$23,259	$5,674

Depreciation expenses charged to operations for the year ended December 31, 2006 were $6,528 (2005: $1,074, 2004: $261).

NOTE 8 SHARE CAPITAL

On July 8, 2005, the Company entered into a Common Stock Purchase Agreement (Purchase Agreement) and a Registration Rights Agreement (Registration Agreement) with Fusion Capital Fund II, LLC (Fusion Capital). Fusion Capital has agreed to purchase from the Company up to $15,000,000 of the Company s shares of common stock over a thirty month period. Pursuant to the terms of the Registration Agreement, the Company has filed a registration statement (the Registration Statement) with the Securities and Exchange Commission covering shares which may be purchased by Fusion Capital under the Purchase Agreement. Pursuant to the terms of the Purchase Agreement, the Company issued to Fusion 711,598 shares of its common stock, which Fusion Capital has agreed to hold for thirty months. The agreement was mutually cancelled on January 18, 2006, and replaced by a new Common Stock Purchase Agreement (New Purchase Agreement). The Company has issued an additional 374,753 shares in January 2006, for an aggregate number of 1,066,351 shares to Fusion Capital as the commitment fee and another 20,000 shares were issued to Fusion Capital upon signing of a term sheet on June 28, 2005. The fair value of the stock issued has been expensed in 2005 and 2006.

Under the New Purchase Agreement with Fusion Capital dated January 20, 2006, Fusion Capital has agreed to purchase from the Company up to $15,000,000 of the Company s share of common stock over a thirty month period after the related registration statement is declared effective by the U.S. Securities and Exchange Commission, subject to earlier termination at the discretion of the Company.

After the registration statement had been declared effective on February 14, 2006, on each trading day during the term of the New Purchase Agreement the Company had the right to sell to Fusion Capital $25,000 of the Company s common stock at a purchase price equal to the lower of (a) the lowest sale price of the common stock on such

trading day and (b) the arithmetic average of the three lowest closing sale prices for the common stock during the twelve consecutive trading days immediately preceding the date of purchase, provided that the purchase price will not be less than $0.50 per share. At the Company s option, Fusion Capital can be required to purchase fewer or greater amounts of common stock each month. The Company has the right to control the timing and the number of shares sold to Fusion Capital.

The Company shall always have the right at any time to decrease the amount of the daily purchase amount by delivering written notice to the buyer which notice shall specify the new daily purchase amount. The decrease in the daily purchase amount shall become effective one trading day after receipt by the buyer of the daily purchase amount decrease notice. The Company shall have the right (but not the obligation) to increase the amount of the daily purchase amount in accordance with the terms and conditions set forth in the Common Stock Purchase Agreement by delivering written notice to the buyer stating the new amount of the daily purchase amount. With respect to increases in the daily purchase amount above the original daily purchase amount, as the market price for the Common Stock increases the Company shall have the right from time to time to increase the daily purchase amount as follows. For every $0.10 increase in threshold price above $1.00 (subject to equitable adjustment for any reorganization, recapitalization, non-cash dividend, stock split or other similar transaction), the Company shall have the right to increase the daily purchase amount by up to an additional $2,500 in excess of the original daily purchase amount. Threshold price for purposes hereof means the lowest sale price of the Common Stock during the five (5) consecutive trading days immediately prior to the submission to the buyer of a daily purchase amount increase notice (subject to equitable adjustment for any reorganization, recapitalization, non-cash dividend, stock split or other similar transaction). For example, if the threshold price is $1.50, the Company shall have the right to increase the daily purchase amount to up to $37,500 in the aggregate. If the threshold price is $2.50, the Company shall have the right to increase the daily purchase amount to up to $62,500 in the aggregate.

Fusion Capital does not have the right or the obligation to purchase shares of our common stock in the event that the price of our common stock is less than $0.50.

During the year ended December 31, 2006, Fusion Capital has purchased 2,154,661 (2005: nil) shares of common stock of the Company for total proceeds of $1,719,996 (2005: $nil).

As of March 23, 2007, Fusion Capital has purchased 2,536,661 shares of common stock of the Company for total proceeds of $1,924,998.

NOTE 9 WARRANTS

The movement of share purchase warrants can be summarized as follows:-

	Number of warrants	Weighted average exercise price
Balance, December 31, 2004	2,700,000	$0.025
Exercised	(1,250,000)	0.025
Expired	(1,450,000)	0.025
Balance, December 31, 2006 and 2005	-	

As of December 31, 2006, there are no outstanding share purchase warrants.

NOTE 10 - STOCK OPTIONS

As of December 31, 2006, the Company had an active stock option plan that provides shares available for options granted to employees, directors and others. Options granted to employees under the Company s option plans generally vest over two to five years or as otherwise determined by the plan administrator. Options to purchase shares expire no later than ten years after the date of grant.

The movement of stock options can be summarized as follows:

	Number of options	Weighted average exercise price	Remaining contractual term	Aggregate intrinsic value
Outstanding at December 31, 2004	11,133,000	$0.48		
Granted	6,000,000	2.86		
Exercised	(285,000)	2.28		
Outstanding at December 31, 2005	16,848,000	1.29		
Granted	8,250,000	0.82		
Exercised	(175,000)	0.07		
Cancelled	(14,573,000)	1.49		
Outstanding at December 31, 2006	10,350,000	0.67	8.76 years	$1,029,000
Exercisable at December 31, 2006	5,700,000	$0.56	8.14 years	$1,029,000
Available for grant at December 31, 2006	27,448,000			

The aggregate intrinsic value in the table above represents the total pretax intrinsic value for all in-the-money options (i.e. the difference between the Company s closing stock price on the last trading day of 2006 and the exercise price, multiplied by the number of shares) that would have been received by the option holders had all option holders exercised their options on December 31, 2006. This amount changes based on the fair market value of the Company s stock. Total intrinsic value of options exercised was $172,700 (2005: $57,050) for the year ended December 31, 2006. Weighted average fair value of options granted during the year ended December 31, 2006 was $0.49 (2005: $1.75) per share.

A summary of the Company s unvested stock options and changes during the years ended December 31 is as follows:

	Shares	Fair value per share
Outstanding at December 31, 2004	-	$-

Granted during 2005	6,000,000	1.75
Vested during 2005	(6,000,000)	(1.75)
Outstanding at December 31, 2005	-	-
Granted during 2006	8,250,000	$0.49
Vested during 2006	(3,600,000)	0.47
Outstanding at December 31, 2006	4,650,000	0.51

On April 24, 2006, the Company cancelled 13,118,000 stock options previously granted to officers, directors, employees and consultants, comprising of 5,500,000, 1,668,000, 2,000,000 and 3,950,000 options at an exercise price of $0.07, $2.11, $2.38 and $3.10 each, respectively. On the same day, the Company granted 6,000,000 stock options at an exercise price of $0.85 to two employees. The vesting periods for the options are as follows: 30% of the stock options are exercisable on or after July 24, 2006, another 30% of the stock options are exercisable on or after October 24, 2006 and the remaining 40% of the stock options are exercisable on or after April 24, 2007. The fair value of the options granted was estimated at $0.47 each, for a total amount of $2,820,000, by using the Black-Scholes Option Pricing Model with the following weighted average assumptions: dividend yield of 0%, expected volatility of 81.9%, risk-free interest rates of 4.23%, and expected lives of three years.

The 6,000,000 employee stock options issued on April 24, 2006 were cancelled effective March 5, 2007.

On September 9, 2006, the Company cancelled 1,140,000 and 315,000 stock options previously granted to an employee at an exercise price of $0.07 and $2.11 respectively.

On October 2, 2006, the Company granted options to purchase up to 2,250,000 shares of the Company s common stock at an exercise price of $0.73. The options vest as follows: (a) 1,750,000 options shall vest if and when the Company or a wholly owned subsidiary, or any one current or future medical technology, approved by the Board of Directors is acquired, in whole or in part, or when either the Company or a subsidiary, enters into a strategic collaborative agreement for any one current or future medical technology, approved by the Board of Directors, provided that the Company s Board of Directors has approved, by written resolution, any such acquisition, sale or agreement; (b) 250,000 stock options shall vest upon the filing of human safety trials for the Company s artificial liver device (or such other Board approved medical technology) in Europe or the equivalent filing in the US; and (c) 250,000 stock options shall vest upon the successful completion of human safety trials for the Company s artificial liver device (or such other Board approved medical technology) in Europe or the equivalent safety trial approval in the US (completion of phase 1).

As the 2,250,000 stock options will vest based on certain performance conditions, the Company expects that the first 1,750,000 stock options will vest at around 24 months from the date of grant, the second 250,000 stock options will vest at around 36 months from the date of grant and the remaining 250,000 stock options will vest at around 60 months from the date of grant. The fair value of each batch of stock options will be amortized over their expected service periods. The Company will periodically reassess the probability of the performance conditions being met and the estimated service period of each batch of stock options.

The fair value of the options granted was estimated at $0.55 each, for a total amount of $1,237,500, by using the Black-Scholes Option Pricing Model with the following weighted average assumptions: dividend yield of 0%, expected volatility of 96.0%, risk-free interest rates of 4.59%, and expected lives of five years.

The 2,250,000 employee stock options issued on October 1, 2006 were cancelled effective January 25, 2007 and simultaneously, the Company granted options to purchase up to 2,000,000 shares of the Company s common stock at an exercise price of $0.52. The options vest as follows: (a) 1,500,000 options shall vest if and when HepaLife or a wholly owned subsidiary, or any one current or future medical device or other technology, approved by the Board of Directors is acquired, in whole or in part, or when either HepaLife or a subsidiary, enters into a strategic collaborative agreement for any one current or future medical device or other technology, approved by the Board of Directors, provided that the Company s Board of Directors has approved, by written resolution, any such acquisition, sale or agreement; (b) 250,000 stock options shall vest upon the filing of human safety trials for HepaLife s artificial liver device (or such other Board approved medical device or other technology) in Europe or the equivalent filing in the US; and (c) 250,000 stock options shall vest upon the successful completion of human safety trials for HepaLife s artificial liver device (or such other Board approved medical device or other technology) in Europe or the equivalent safety trial approval in the US (completion of phase 1).

During the year ended December 31, 2006, compensation expense of $2,607,302 (2005: $nil) was recognized for options previously granted and vesting over time. As of December 31, 2006, the Company had $1,450,199 of total unrecognized compensation cost related to unvested stock options, which is expected to be recognized over a period of 5 years.

The options outstanding and exercisable as of December 31, 2006 can be summarized as follows:

	Outstanding			Exercisable	
Range of Exercise Prices	Number Outstanding at December 31, 2006	Weighted Average Remaining Contractual Life (Years)	Weighted Average Exercise Price	Number Exercisable at December 31, 2006	Weighted Average Exercise Price
$0.07	2,100,000	6.11	$0.07	2,100,000	$0.07
0.73	2,250,000	9.76	0.73	-	-
0.85	6,000,000	9.32	0.85	3,600,000	0.85
$0.07 - $0.85	10,350,000	8.76	$0.67	5,700,000	$0.56

The Company does not repurchase shares to fulfill the requirements of options that are exercised. Further, the Company issues new shares when options are exercised.

NOTE 11 INCOME TAXES

There is no current or deferred tax expense for the years ended December 31, 2006, 2005 and 2004 due to the Company s loss position. The benefits of temporary differences have not been previously recorded. The deferred tax consequences of temporary differences in reporting items for financial statement and income tax purposes are recognized, as appropriate. Realization of the future tax benefits related to the deferred tax assets is dependent on many factors, including the Company s ability to generate taxable income. Management has considered these factors in reaching its conclusion as to the valuation allowance for financial reporting purposes and has recorded a full valuation allowance against the deferred tax asset.

The income tax effect of temporary differences comprising the deferred tax assets on the accompanying balance sheets is primarily a result of stock compensation costs, research and development costs, and of start-up expenses, which are capitalized for income tax purposes. Net operating tax loss carryforwards are summarized as follows:

	2006	2005	2004
Net operating loss carryforwards	$1,682,000	$782,000	$194,000
Stock Compensation costs	$886,000		
Research/Development/Start-up costs	624,000	1,024,000	1,138,000
Organization costs	-	-	1,020
	3,192,000	1,806,000	1,333,020
Valuation allowance	(3,192,000)	(1,806,000)	(1,333,020)
Net deferred tax assets	$-	$-	$-

The 2006 increase in the valuation allowance was $1,386,000 (2005: $473,000, 2004: $487,000).

The Company has available net operating loss carryforwards of approximately $4,947,000 (2005 - $3,185,000, 2004: $570,000) for tax purposes to offset future taxable income which expire commencing 2008 to 2026. Additionally, research and development, start-up costs of approximately $1,834,000 are available to reduce taxable income (2005 - $1,024,000, 2004: $3,347,000), assuming normal operations have commenced.

A reconciliation between the statutory federal income tax rate (34%) and the effective rate of income tax expense for

2006, 2005 and 2004 is as follows:

	2006	2005	2004
Statutory federal income tax	-34.00%	-34.00%	-34.00%
Valuation allowance	34.00%	17.00%	34.00%
Stock offering costs	-	17.00%	-
Effective income tax rate	0.00%	0.00%	0.00%

NOTE 12 SUBSEQUENT EVENT

On January 25, 2007, the Company terminated the 2,250,000 stock options previously granted to the President and Chief Executive Officer, Mr. Frank Menzler and simultaneously issued 2,000,000 new stock options to Mr. Menzler. The stock options were issued pursuant to the Company s 2001 Incentive Stock Option Plan.

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

We have had no disagreements with our certified public accountants with respect to accounting practices, procedures or financial disclosure.

ITEM 9A: CONTROLS AND PROCEDURES.

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Rules 13a-15(f) and 15d-15(f) under the Securities Exchange Act of 1934, as amended. 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 (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and disposition of the assets of the company; (ii) 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 (iii) 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.

An evaluation was performed under the supervision of our management, including our Chief Executive Officer and Chief Financial Officer, of the effectiveness of the design and operation of the Company s disclosure controls and procedures (as defined in Securities Exchange Act of 1934 (the Exchange Act) Rules 13a-15(e) and 15d-15(e)) as of the end of the period covered by this report. Based on that evaluation, our management, including our Chief Executive Officer and Chief Financial Officer, concluded that our disclosure controls and procedures were effective to provide reasonable assurance that information we are required to disclose in reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in SEC rules and forms.

Notwithstanding the foregoing, there can be no assurance that our disclosure controls and procedures will detect or uncover all failures of persons associated with us to disclose material information otherwise required to be set forth in our periodic reports. There are inherent limitations to the effectiveness of any system of disclosure controls and procedures, including the possibility of human error and the circumvention or overriding of the controls and procedures. 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. Accordingly, even effective disclosure controls and procedures can only provide reasonable, not absolute, assurance of achieving their control objectives.

There have been no significant changes in internal controls, or in factors that could significantly affect internal controls, subsequent to the date that management, including the Chief Executive Officer and the Chief Financial Officer, completed their evaluation.

ITEM 9B. OTHER INFORMATION.

None.

PART III

ITEM 10: DIRECTORS AND EXECUTIVE OFFICERS, PROMOTERS AND CONTROL PERSONS; COMPLIANCE WITH SECTION 16(a) OF THE EXCHANGE ACT

Set forth below is certain information regarding each of the directors and officers of the Company:

FRANK MENZLER, (Age 38). President, Chief Executive Officer, Director. In 1998, Mr. Menzler co-founded Impella Cardiotechnik AG (Germany), helping to raise more than $30 million in grants and venture capital for the nation's first-ever academically-sponsored research effort to receive private venture capital funding. In 2002, Mr. Menzler served as Marketing Manager for Europe, Middle East, Africa and Canada (EMEAC) at Guidant Corporation's, Cardiac Surgery Business Unit in Brussels, Belgium. In 2004, Mr. Menzler joined Abiomed as

General Manager, Europe, and then in 2006 was named Director, International Distributors, and was responsible sales, training and operations. Mr. Menzler was appointed President, Chief Executive Officer and joined the Board of Directors on October 1, 2006.

JAVIER JIMENEZ (Age 42). Director. In 2000, Mr. Jimenez joined GE Healthcare, a $15 billion unit of General Electric Company. Mr. Jimenez held several key finance and management positions in the United States and Latin America. In 2004, Mr. Jimenez joined ABIOMED, Inc., developer of the world s first self-contained artificial heart. Mr. Jimenez served in numerous positions, most recently as Vice President, General Manager Europe, where he was responsible for key facets of the company s operations in Europe, Middle East, and Africa. Mr. Jimenez joined the Board of Directors on March 14, 2007.

HARMEL S. RAYAT (Age 45). Secretary, Treasurer, Chief Financial Officer, Chairman, Director. Mr. Rayat has served as one of our directors since December 4, 2000. Since January 2002, Mr. Rayat has been president of Montgomery Asset Management Corporation, a privately held firm providing financial consulting services to emerging growth corporations, From April 2001 through January 2002, Mr. Rayat acted as an independent consultant advising small corporations. Prior thereto, Mr. Rayat served as the president of Hartford Capital Corporation, a company that provided financial consulting services to a wide range of emerging growth corporations. During the past five years, Mr. Rayat has served, at various times, as a director, executive officer and majority shareholder of a number of publicly traded and privately held corporations, including, PhytoMedical Technologies, Inc. (currently secretary, treasurer, chief financial officer, director, and majority stockholder), Entheos Technologies, Inc. (currently president, chief executive officer, chief financial officer, director, and majority stockholder), Octillion Corp. (currently president, chief executive officer, chief financial officer, director and majority stockholder), and International Energy, Inc. (currently secretary, treasurer, chief financial officer and director and majority stockholder).

Except as set forth below, none of the corporations or organizations with whom our directors are affiliated with is a parent, subsidiary or other affiliate of ours. Mr. Rayat is an officer, director and majority stockholder of each of PhytoMedical Technologies, Inc., Entheos Technologies, Inc., Octillion Corp. and International Energy, Inc.

There are no family relationships among or between any of our officers and directors.

Except as set forth below, during the past five years none of our directors, executive officers, promoters or control persons have been:

(a)

the subject of any bankruptcy petition filed by or against any business of which such person was a general partner or executive officer either at the time of the bankruptcy or within two years prior to that time;

(b)

convicted in a criminal proceeding or is subject to a pending criminal proceeding (excluding traffic violations and other minor offenses);

(c)

subject to any order, judgment, or decree, not subsequently reversed, suspended or vacated, of any court of competent jurisdiction, permanently or temporarily enjoining, barring, suspending or otherwise limiting his involvement in any type of business, securities or banking activities; or

(d)

found by a court of competent jurisdiction (in a civil action), the Commission or the Commodity Futures Trading Commission to have violated a federal or state securities or commodities law.

Mr. Harmel S. Rayat, EquityAlert.com, Inc., Innotech Corporation and Mr. Bhupinder S. Mann, a former part-time employee of ours (collectively the respondents), consented to a cease-and-desist order pursuant to Section 8A of the Securities Act of 1933. The matter related to the public resale by EquityAlert of securities received as compensation from or on behalf of issuers for whom EquityAlert and Innotech provided public relation and stock advertising services; Mr. Rayat was the president of Innotech and Equity Alert was the wholly-owned subsidiary of Innotech at the time.

The U.S. Securities & Exchange Commission contended and alleged that Equity Alert had received the securities from persons controlling or controlled by the issuer of the securities, or under direct or indirect common control with such issuer with a view toward further distribution to the public; as a result, the U.S. Securities & Exchange Commission further alleged that the securities that Equity Alert had received were restricted securities, not exempt from registration, and hence could not be resold to the public within a year of their receipt absent registration; and,

accordingly, the U.S. Securities & Exchange Commission further alleged, since Equity Alert effected the resale within a year of its acquisition of the securities, without registration, such resale violated Sections 5(a) and 5(c) of the Securities Act.

Without admitting or denying any of the findings and/or allegations of the U.S. Securities & Exchange Commission the respondents agreed, on October 23, 2003 to cease and desist, among other things, from committing or causing any violations and any future violations of Section 5(a) and 5(c) of the Securities Act of 1933. EquityAlert.com, Inc. and Innotech Corporation agreed to pay disgorgement and prejudgment interest of $31,555.14.

Compliance With Section 16(a) of the Exchange Act

Section 16(a) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), requires our directors, officers and persons who own more than 10 percent of a registered class of the Company's equity securities, to file reports of ownership and changes in ownership with the Securities and Exchange Commission ("the Commission"). Directors, officers and greater than 10 percent beneficial owners are required by applicable regulations to furnish us with copies of all forms they file with the Commission pursuant to Section 16(a). Based solely upon a review of the copies of the forms furnished to us, we believe that during fiscal 2006 the Section 16(a) filing requirements applicable to its directors and executive officers were satisfied.

ITEM 11: EXECUTIVE COMPENSATION.

Remuneration and Executive Compensation

The following table shows, for the three-year period ended December 31, 2006, the cash compensation paid by the Company, as well as certain other compensation paid for such year, to the Company's Chief Executive Officer and the Company's other most highly compensated executive officers. Except as set forth on the following table, no executive officer of the Company had a total annual salary and bonus for 2006 that exceeded $100,000.

Summary Compensation Table

Securities

Principal Position	Year	Salary	Bonus	Other(1)	Underlying Options Granted	All Other Compensation
Frank Menzler	2006	$56,250	$0	$0	2,250,000	$0
President, CEO	2005	$0	$0	$0	0	

$0

Director

2004

$0

$0

$0

0

$0

Harmel S. Rayat

2006

$0

$0

$0

0

$0

Secretary, Treasurer

2005

$0

$0

$2,300

0

$0

Chief Financial

2004

$0

$0

$3,500

0

$0

Officer, Chairman

and Director

Arian Soheili (2)

2006

$0

$0

$3,600

0

$0

Secretary, Treasurer

2005

$0

$0

$4,900

0

$0

Director

2004

$0

$0

$2,500

0

$0

Jasvir Kheleh (3)

2006

$0

$0

$3,600

0

$0

Director

2005

$0

$0

$4,100

0

$0

2004

$0

$0

$3,500

0

$0

(1) Includes standard Board of Directors fees and meeting attendance fees.

(2) Resigned as Secretary, Treasurer and Director on March 14, 2007

(3) Resigned as Director on March 14, 2007

Stock Option Grants in Last Fiscal Year

Shown below is further information regarding employee stock options awarded during 2006 to the named officers and directors:

Name	Number of Securities Underlying Options in 2006	% of Total Options Granted to Employees	Exercise Price ($/sh)	Expiration Date
Frank Menzler	2,250,000	27%	$0.73	October 1, 2016
Harmel Rayat				

0

0

n/a

n/a

Arian Soheili (1)

0

0

n/a

n/a

Jasvir Kheleh (2)

0

0

n/a

n/a

(1) Resigned as Secretary, Treasurer and Director on March 14, 2007

(2) Resigned as Director on March 14, 2007

Aggregated Option Exercises During Last Fiscal Year and Year End Option Values

The following table shows certain information about unexercised options at year-end with respect to the named officers and directors:

Common Shares Underlying Unexercised

Value of Unexercised In-the-money

Options on December 31, 2006

Options on December 31, 2006

Name

Exercisable

Unexercisable

Exercisable

Unexercisable

Frank Menzler

0

2,250,000

0

$1,260,000

Harmel Rayat

0

0

0

0

Arian Soheili (1)

0

0

0

0

Jasvir Kheleh (2)

0

0

0

0

(1) Resigned as Secretary, Treasurer and Director on March 14, 2007

(2) Resigned as Director on March 14, 2007

Changes in Control

There are no understandings or agreements, aside from the transaction completed and described under Certain Relationships and Related Transactions, known by management at this time which would result in a change in control of the Company. If such transactions are consummated, of which there can be no assurance, the Company may issue a significant number of shares of capital stock which could result in a change in control and/or a change in the Company s current management.

ITEM 12: SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED TRANSACTIONS.

The following table sets forth, as of March 23, 2007, the beneficial ownership of the Company's Common Stock by each director and executive officer of the Company and each person known by the Company to beneficially own more than 5% of the Company's Common Stock outstanding as of such date and the executive officers and directors of the Company as a group.

Number of Shares

Person or Group

of Common Stock

Percent

Frank Menzler (1)

2,000,000

3%

60 State Street, Suite 700

Boston, MA 02109

Javier Jimenez

0

0%

60 State Street, Suite 700

Boston, MA 02109

Harmel S. Rayat (2)

44,213,056

61%

216-1628 West First Avenue

Vancouver, B.C. V6J 1G1 Canada

Directors and Executive Officers

46,213,056

64%

as a group (3 persons)

(1) 2,000,000 stock options were granted on January 25, 2007, which may be acquired pursuant to options granted and exercisable under the Company's stock option plans.

(2) Also includes 3,203,194 shares held by Tajinder Chohan, Mr. Harmel S. Rayat's wife. Additionally, other members of Mr. Rayat's family hold shares. Mr. Rayat disclaims beneficial ownership of the shares beneficially owned by his other family members.

ITEM 13: CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS.

Management Fees: During the year ended December 31, 2006, the Company paid management fees of $10,800 (2005: $11,300, 2004: $9,500) to the directors. There is no management or consulting agreement in effect nor is there an agreement in place to convert debt to equity. Included in accounts payable related parties at December 31, 2006 are management fees of $nil (2005: $27,000).

Notes Payable and Accrued Interest: During the year ended December 31, 2006, the Company made a partial repayment of $140,000 to the outstanding notes payable. As of December 31, 2006, notes payable of $1,010,000 was made up from unsecured loans of $110,000, $700,000 and $200,000, all bearing interest at the rate of 8.50%, due to a director and major shareholder of the Company. The entire amounts of principal and interest accrued are due and payable on demand. Accrued and unpaid interest on these notes at December 31, 2006, amounted to $153,829 (2005: $78,301).

Rent: The Company s administrative office is located at 1628 West 1st Avenue, Suite 216, Vancouver, British Columbia, Canada, V6J 1G1. These premises are owned by a private corporation controlled by a director and majority shareholder. The Company pays a monthly rent of C$3,200 effective from April 1, 2006. The Company paid rent of $29,680 (2005: $nil, 2004: $nil) for the year ended December 31, 2006.

Mr. Harmel S. Rayat is an officer, director and majority stockholder of the Company. He is also an officer, director and stockholder of each of PhytoMedical Technologies, Inc., Entheos Technologies, Inc., Octillion Corp. and International Energy, Inc.

All related party transactions are recorded at the exchange amount established and agreed to between related parties and are in the normal course of business.

ITEM 14: PRINCIPAL ACCOUNTANT FEES AND SERVICES.

The firm of Ernst & Young, LLP served as the Company's independent accountants from May 5, 2005 until their dismissal in March 2006. The firm of Peterson Sullivan, PLLC currently serves as the Company s independent accountants. The Board of Directors of the Company, in its discretion, may direct the appointment of different public accountants at any time during the year, if the Board believes that a change would be in the best interests of the stockholders. The Board of Directors has considered the audit fees, audit-related fees, tax fees and other fees paid to the Company's accountants, as disclosed below, and had determined that the payment of such fees is compatible with maintaining the independence of the accountants.

Audit Fees: The aggregate fees, including expenses, billed by our principal accountant in connection with the audit of our consolidated financial statements for the most recent fiscal year and for the review of our financial information included in our Annual Report on Form 10-K; and our quarterly reports on Form 10-Q during the fiscal years ending December 31, 2006 and December 31, 2005 were $30,830 and $32,057 respectively.

Tax fees: The aggregate fees billed to us for tax compliance, tax advice and tax planning by our principal accountant for fiscal 2006 and 2005 were $0.

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All Other Fees: The aggregate fees, including expenses, billed for all other services rendered to us by our principal accountant during year 2006 and 2005 were $0.

We do not currently have an audit committee.

ITEM 15: EXHIBITS, FINANCIAL STATEMENT SCHEDULE

(a) The following exhibits are filed as part of this Annual Report:

31.1

Certification of the Chief Executive Officer pursuant to Rule 13a-14(a)

31.2

Certification of the Chief Financial Officer pursuant to Rule 13a-14(a)

32.1

Certification by the Chief Executive Officer pursuant to 18 U.S.C. 1350 as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

32.2

Certification by the Chief Financial Officer pursuant to 18 U.S.C. 1350 as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

(b) During the Company s fourth quarter, the following reports were filed on Form 8-K

October 6, 2006: On October 2, 2006, the Company appointed Mr. Frank Menzler to the positions of President and Chief Executive Officer, effective immediately. The Company established and Mr. Menzler agreed to a compensation package consisting of a salary, stock options, moving allowance, and health benefits, as agreed to in a General Offer of Employment Agreement dated June 1, 2006, and amended on August 1, 2006.

December 7, 2006: HepaLife Technologies, Inc. issued a news release to announce the confirmation that the Company's patented 'PBS-1' cells, under development for avian influenza vaccines, are free of pathogens, diseases, bacteria, and potentially harmful viruses.

December 22, 2006: HepaLife Technologies, Inc. issued a news release to announce plans to expand its influenza vaccine development initiative following favorable research outcomes related to the Company's 'PBS-1' cell line.

SIGNATURES

Pursuant to the requirements of Sections 13 or 15 (d) of the Securities and Exchange Act of 1934, the Registrant has duly caused this amendment to its report on Form 10-K for the fiscal year ended December 31, 2006, to be signed on its behalf by the undersigned, thereunto duly authorized on this 30th day of March, 2007.

HepaLife Technologies, Inc.

/s/ Frank Menzler

Frank Menzler

President and CEO

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 and in capacities and on the dates indicated.

Signature

Title

Date

/s/ Frank Menzler

Director , President,

March 30, 2007

Frank Menzler

Chief Executive Officer

/s/ Harmel S. Rayat

Director, Chairman

March 30, 2007

Harmel S. Rayat

Secretary, Treasurer

Chief Financial Officer,

Principal Accounting Officer

/s/ Javier Jimenez

Director

March 30, 2007

Javier Jimenez

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