HEPALIFE TECHNOLOGIES INC
Form 10-K
March 31, 2008

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, 2007

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 SUBSIDIARIES

(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 24, 2008: $12,783,027.

Number of shares of Common Stock, $0.001 par value, outstanding as of March 24, 2008: 78,606,999.

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, 2007, 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, inte 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, formed in 1997 under the name Zeta Corporation. We changed our name on April 17, 2003, to more accurately reflect our business. We are authorized to issue up to 300,000,000 shares of common stock (of which 78,606,999 were issued and outstanding on March 24, 2008) and 1,000,000 shares of preferred stock (none of which has been issued).

Our principal executive offices are located at 60 State Street, Suite 700, Boston, MA 02109. Our telephone number is 800-518-4879. The address of our website is www.hepalife.com. Information on our website is not part of this prospectus.

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.

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.

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 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 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 Michigan State University in June 2006. 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 (from outside the system) agents, fungi, bacteria, diseases, and potentially harmful viruses. In addition, PBS-1 cells 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;

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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.

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.

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 306 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. The need for such a device is increasing worldwide. 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 30 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 6,441 Americans who underwent liver transplantation procedures in 2005 at a cost of $280,000 per surgery, notwithstanding pre- and post-operative expenses (American Liver Foundation); this market segment alone amounts to $1.80 billion per year.

In addition, the United Network for Organ Sharing estimates that 16,903 persons were awaiting liver transplants as of May 2007. If this waiting list patient population were able to undergo liver transplantation, these patients would account for an additional $4.73 billion.

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 350 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 costs 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 approximately only 7,000 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 (Absorption-Distribution-Metabolism-Excretion)-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, 2007, HepaLife had 6 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.

RISKS RELATED TO OUR BUSINESS ACTIVITIES

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 $4,438,197, $4,654,499 and, $2,813,602, respectively, during the past three fiscal years of operation. As a result, at December 31, 2007, we had an accumulated deficit of $15,654,069. 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 Program.

From inception through December 31, 2007, expenditures for our advertising and investor relations aggregated $3,784,389 or approximately 28% of total expenditures as compared to total research and development expenses during the same period of $1,021,288 or approximately 7% of total expenditures. If we continue to expend funds in such a disproportionate manner we may not have sufficient capital for the completion of our obligations 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:

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

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

- 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;

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

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

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

- 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, 2007 and 2006, 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, 2007, we had a working capital deficit of $552,479. Although we believe that we have sufficient financial resources and commitments to sustain our current level of research and development activities through the

end of December 2008, any expansion, acceleration or continuation (beyond December 2008) 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.

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

As of March 24, 2008, we owed an aggregate of $877,800 to Harmel S. Rayat, our secretary, treasurer, chief financial officer, director and majority stockholder, pursuant to his $1,500,000 loan commitment to us. On January 18, 2006, we agreed, in consideration of Mr. Rayat s oral undertaking to increase his loan commitment to us from $1,500,000 to $1,600,000, to convert the loans to demand loans. 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 repay these loans, at any time, without penalty.

The Success Of Our Sponsored Research And Development Program 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 Program.

We expect to continue our current sponsored research and development programs through at least 2008. 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 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 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 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.

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 is based entirely on our CRADA with the USDA s Agricultural Research Service. The termination date of the CRADA is November 19, 2009. 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 sponsored 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 Program.

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 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.

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

Because mice carry genetic material of the species specific virus, our use of cells derived from mice carries a risk of transmitting viruses harmless to mice, 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 use of mouse feeder cells.

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 do not generally involve the handling of potentially harmful biological materials or hazardous materials, but they may occasionally do so. 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 A Highly Competitive Market; 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 Program, 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 our sponsored research and development activities with the USDA. Further, 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.

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 our president and chief executive officer, 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.

RISKS RELATED TO OUR COMMON STOCK

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

We have issued a total of 78,606,999 shares of common stock, of which 48,953,332 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 or if the selling stockholders whose shares are being registered pursuant to this prospectus sell or attempt to publicly sell such shares 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 GCA Strategic and Equinox pursuant to this prospectus and subsequent sale of common stock by the holders of 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 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.

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

As of March 24, 2008, Mr. Rayat beneficially owned 44,213,056 shares, constituting approximately 56% 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.

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 2007. 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 2008.

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 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

First Quarter 2007

$0.70

$0.41

Second Quarter 2007

$1.76

$0.55

Third Quarter 2007

$1.07

$0.57

Fourth Quarter 2007

$0.85

$0.36

January 1, 2008 March 24, 2008

$0.40

$0.31

As of March 24, 2008, there were approximately 53 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

Plan Category	(a)	(b)	(c)
			(excluding securities reflected in column (a))
Equity compensation plans approved by security holders	2,000,000	$0.52	35,771,250
Equity compensation plans not approved by security holders			
Total	2,000,000	$0.52	35,771,250

ITEM 6. SELECTED FINANCIAL DATA

FIVE-YEAR STATEMENT OF OPERATIONS

	Years Ended December 31				
	2003	2004	2005	2006	2007
Revenues	$-	$-	$-	$-	$-
General and administrative					
Management fees and consulting fees Related party	28,500	9,500	29,925	36,166	26,932
Investor Relations	960,003	1,016,916	696,282	451,373	540,315
Stock based compensation expense	-	-	-	2,607,302	935,044
Other operating expense	53,309	219,626	326,006	659,726	1,006,289
Research and Development	41,400	151,546	261,691	302,618	172,533
Stock offering costs	-	-	1,420,796	505,917	-
Total General and Administrative Expenses	1,083,212	1,397,588	2,734,700	4,563,102	2,681,113
Other Income					
Interest Expenses	20,458	39,946	83,365	104,436	88,992
Interest Income	(947)	(1,921)	(4,463)	(13,039)	(39,451)
Amortization of discount on issuance of convertible promissory notes	-	-	-	-	1,624,756
Amortization of deferred financing costs	-	-	-	-	82,787
	19,511	38,025	78,902	91,397	1,757,084
Provision for Income Taxes	-	-	-	-	-
Net Loss Available to Common Stockholders	($1,102,723)	($1,435,613)	($2,813,602)	($4,654,499)	($4,438,197)
Basic and Diluted Loss Per Common Share	($0.02)	($0.02)	($0.04)	($0.07)	($0.06)
	57,817,305	64,610,777	69,314,822	71,449,018	74,101,897

Weighted Average Common Shares
Outstanding

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 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.

Our sponsored research is being conducted pursuant to a Cooperative Research and Development Agreement with the United States Department of Agriculture s Agricultural Research Service and a sponsored research agreement with Michigan State University..

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.

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 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 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 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.

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 costs, stock based compensation costs, 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 $4,438,197, $4,654,499, and $2,813,602 respectively, during the past three fiscal years of operation. As a result, at December 31, 2007, we had an accumulated deficit of $15,654,069. 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, 2007 and 2006, 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, 2007 and 2006

We had no revenues in 2007 and 2006. Our general and administrative expenses decreased 41% to $2,508,580 in 2007, from $4,260,484 in the same period in 2006. This decrease was primarily attributable a reduction in the stock based compensation expense that incurred in 2006.

In 2007, we also incurred $172,533 in research and development expenses, a decrease of 43%, compared to $302,618 of research and development costs that we incurred in 2006.

Interest income increased 203% to $39,451 in 2007, from $13,039 during the same period in 2006. This was the result of higher average cash balances maintained during 2007.

Our net loss in 2007 decreased 5% to $4,438,197, from $4,654,499 in 2006.

Liquidity and Capital Resources for Years Ended December 31, 2007 and 2006

At December 31, 2007, the Company had a cash balance of $534,113, compared to a cash balance of $252,887 at December 31, 2006.

During 2007, the Company used $1,895,400 of net cash from operating activities, as compared to $1,422,509 of net cash in 2006.

Net cash provided by financing activities was $2,259,276 for 2007 compared to $1,592,246 for 2006. The Company has financed its operations primarily from cash on hand, through loans from shareholders, proceeds from stock option

and warrant exercises, through the common stock purchase agreement with Fusion Capital and through the securities purchase agreement with GCA Strategic Investment Limited.

At this time, we have no agreements or understandings with any third party regarding any financings.

During the year ended December 31, 2007, Fusion Capital has purchased 891,019 (2006: 2,154,661) shares of common stock of the Company for total proceeds of $495,001 (2006: $1,719,996).

During the year ended December 31, 2007, Notes in the amount of $1,745,000 were converted into 2,604,721 shares.

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 72% to $4,260,484 in 2006, from $2,473,009 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.

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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.

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.

On November 20, 2007, we entered into a new CRADA with USDA s Agricultural Research Service pertaining to the continued development and use of patented liver cell lines in artificial liver devices and in-vitro toxicological testing platforms.

As of December 31, 2007, total payments of $144,103 have been paid.

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

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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 ended July 14, 2007.

As of December 31, 2007, total payment of $73,352 has been paid in relation to the project, including the reimbursement of research expenses of $64,851 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 was 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.

License Agreement

USDA Agricultural Research Service

On November 2, 2007, HepaLife Technologies, Inc. entered into an exclusive license agreement with the USDA s, Agricultural Research Service for the use of patented liver cell lines in artificial liver devices and in-vitro toxicological testing platforms.

The terms of the agreement cover specific patents and the PICM-19 hepatocyte cell lines. Financial details were not disclosed.

As of December 31, 2007, total payments of $75,000 of the $150,000 for license fee have been paid.

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, 2007, the Company paid management fees of $4,900 (2006: $10,800) to the directors. There is no management or consulting agreement in effect nor is there an agreement in place to convert debt to equity.

Notes Payable and Accrued Interest: As of December 31, 2007, notes payable of $877,800 was made up from unsecured loans of $677,800 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, 2007, amounted to $208,330 (2006: $158,535).

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 $35,740 (2006: $38,656) for the year ended December 31, 2007.

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., MicroChannel Technologies Corporation 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

Index to Financial Statements

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 Subsidiaries (a development stage company) ("the Company") as of December 31, 2007 and 2006, and the related consolidated statements of operations, stockholders' equity (deficiency), and cash flows for the years then ended, and for the period from October 21, 1997 (date of inception) to December 31, 2007. 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.

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, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of HepaLife Technologies, Inc. and Subsidiaries (a development stage company) as of December 31, 2007 and 2006, and the results of their operations and their cash flows for the years then ended, and for the period from October 21, 1997 (date of inception) to December 31, 2007, in conformity with accounting principles generally accepted in the United States.

The accompanying consolidated 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 consolidated financial statements do not include any adjustments that might result from the outcome of this uncertainty.

/S/ PETERSON SULLIVAN PLLC

March 28, 2008

Seattle, Washington

HEPALIFE TECHNOLOGIES, INC.
(A Development Stage Company)

CONSOLIDATED BALANCE SHEETS
December 31, 2007 and 2006

(Expressed in U.S. Dollars)	**2007**	**2006**
ASSETS		
Current assets		
Cash	$534,113	$252,887
Prepaid expenses	4,338	3,775
Total current assets	538,451	256,662
Equipment, net (Note 6)	10,882	23,259
License fee (Note 4)	75,000	-
Deferred financing costs (Note 8)	210,728	-
Total assets	$835,061	$279,921
LIABILITIES		
Current		
Accounts payable and accrued liabilities	$4,800	$170,077
Accounts payable - related parties (Note 3)	208,330	158,535
Notes payable - related party (Note 3)	877,800	1,010,000
Total current liabilities	1,090,930	1,338,612
Convertible promissory note, at face value (Note 8)	755,000	-
Discount on convertible promissory notes (Note 8)	(468,343)	-
	286,657	-
Total liabilities	1,377,587	1,338,612
Commitments and Contingencies (Note 4, 5)		

STOCKHOLDERS' EQUITY (DEFICIENCY)

Stockholders' Equity (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: 76,264,584 (2006: 72,768,844)	76,265	72,769
Additional paid-in capital	15,039,050	10,084,412
Accumulated other comprehensive income (loss)	(3,772)	-
Loss accumulated during the development stage	(15,654,069)	(11,215,872)
Total stockholders' equity (deficiency)	(542,526)	(1,058,691)
Total liabilities and stockholders' equity	$835,061	$279,921

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

HEPALIFE TECHNOLOGIES, INC.
(A Development Stage Company)

CONSOLIDATED STATEMENTS OF OPERATIONS
For the years ended December 31, 2007 and 2006
and from inception (October 21, 1997) to December 31, 2007

(Expressed in U.S. Dollars)	2007	2006	From inception (October 21, 1997) to December 31, 2007
Revenue	$-	$-	$-
Expenses			
Administrative and general	219,576	132,486	641,348
Depreciation	16,255	6,528	27,589
Professional fees- accounting and legal	99,893	164,564	507,521
Management and consulting fees (Note 3)	26,932	36,166	1,002,337
Research and development (Notes 4 and 5)	172,533	302,618	1,021,288
Salary and benefits (Note 10)	1,513,522	2,906,911	4,476,970
Shareholder and investor relations	540,315	451,373	3,784,389
Stock offering costs	-	505,917	1,926,713
Transfer agent and filing	4,628	3,767	16,017
Travel	87,459	52,772	293,599
	2,681,113	4,563,102	13,697,771
Operating Loss	(2,681,113)	(4,563,102)	(13,697,771)
Other income and expenses			
Interest on promissory note	(80,431)	(93,833)	(313,497)
Interest, bank charges and foreign exchange loss	(8,561)	(10,603)	(24,546)
Interest income	39,451	13,039	89,288
	(1,624,756)	-	(1,624,756)

Amortization of discount on issuance of convertible promissory notes (Note 8)			
Amortization of deferred financing costs (Note 8)	(82,787)	-	(82,787)
	(1,757,084)	(91,397)	(1,956,298)
Net loss available to common shareholders	$(4,438,197)	$(4,654,499)	$(15,654,069)
Loss per share - basic and diluted	$(0.06)	$(0.07)	
Weighted average number of common shares			
outstanding - basic and diluted	74,101,897	71,449,018	

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

HEPALIFE TECHNOLOGIES, INC.

(A Development Stage Company)

CONSOLIDATED STATEMENT OF STOCKHOLDERS' EQUITY (DEFICIENCY)

from inception (October 31, 1997) to December 31, 2007

	Common Stock			Accumulated other	Loss accumulated		Total stockholders'
(Expressed in U.S. Dollars)	Shares	Amount	Additional paid-in capital	comprehensive income	during development stage	Comprehensive income (loss)	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	42
Total comprehensive income						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)	(471,988)
Total comprehensive income						(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)	(121,045)
Total comprehensive income						(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)	(80,608)
Total comprehensive income						(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)	(160,364)
Total comprehensive income						(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)	(375,472)
Total comprehensive income					(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)	(1,102,723)
Total comprehensive income						(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)	(1,435,613)
Total comprehensive income						(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)	(2,813,602)
Total comprehensive income						(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)	(4,654,499)
Total comprehensive income						(4,654,499)	
Balance, December 31, 2006	72,768,844	72,769	10,084,412	-	(11,215,872)		(1,058,691)
Common stock issued in the first quarter of 2007 to Fusion Capital for cash	382,000	382	204,619				205,001

Common stock issued in the second quarter of 2007 to Fusion Capital for cash	509,019	509	289,491			290,000
Common stock converted from convertible promissory notes	2,604,721	2,605	1,742,395			1,745,000
Proceeds allocated to the warrants issued with the convertible notes			497,689			497,689
Warrants issued for the payment of broker's fees			64,990			64,990
Intrinsic value of the beneficial conversion feature of the notes			1,220,410			1,220,410
Stock based compensation expenses			935,044			935,044
Comprehensive income (loss)						
Foreign currency translation adjustment				(3,772)		(3,772) (3,772)
Loss, year ended December 31, 2007					(4,438,197)	(4,438,197) (4,438,197)

Total comprehensive income						$(4,441,969)	
Balance, December 31, 2007	76,264,584	$76,265	$15,039,050	$(3,772)	(15,654,069)	$	$(542,526)

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

HEPALIFE TECHNOLOGIES, INC.
(A Development Stage Company)

CONSOLIDATED STATEMENTS OF CASH FLOWS
for the years ended December 31, 2007 and 2006
and from inception (October 21, 1997) to December 31, 2007

(Expressed in U.S. Dollars)	2007	2006	From inception (October 21, 1997) to December 31, 2007
Cash flows from operating activities			
Net Loss	$(4,438,197)	$(4,654,499)	$(15,654,069)
Adjustments to reconcile net loss to net cash from operating activities			
Depreciation	16,255	6,528	27,589
Common stock issued for services	-	-	861,100
Common stock issued as stock offering costs	-	505,917	1,926,713
Stock based compensation expenses	935,044	2,607,302	3,542,346
Amortization of discount on convertible promissory notes	1,624,756	-	1,624,756
Amortization of deferred financing costs	82,787	-	82,787
Change in assets and liabilities:			
Decrease (Increase) in prepaid expenses	(563)	(3,775)	(4,338)
Increase (decrease) in accounts payable	(165,277)	63,840	4,800
Increase in accounts payable - related party	49,795	52,178	208,330
Net cash used in operating activities	(1,895,400)	(1,422,509)	(7,379,986)
Cash flows from investing activities			
Purchase of property and equipment	(3,878)	(24,113)	(38,471)
Increase in license fees	(75,000)	-	(75,000)
Net cash used in investing activities	(78,878)	(24,113)	(113,471)
Cash flows from financing activities			

Proceeds from issuance of common stock, net	495,001	1,732,246	5,257,067
Proceeds from issuance of convertible notes	2,125,000	-	2,125,000
Repayment of promissory notes	(132,200)	(140,000)	877,800
Cash paid for finders fee	(228,525)	-	(228,525)
Net cash provided by financing activities	2,259,276	1,592,246	8,031,342
Increase in cash and cash equivalents	284,998	145,624	537,885
Effect of foreign exchange rate	(3,772)	-	(3,772)
Cash and cash equivalents, beginning of period	252,887	107,263	-
Cash and cash equivalents, end of period	$534,113	$252,887	$534,113
Supplemental disclosure of cash flow information:			
Interest paid in cash	$25,930	$19,736	$97,575
Income tax paid in cash	$-	$-	$-
Non-cash Investing and Financing Activities:			
Common stock issued for services	$-	$-	$861,000
Issuance of common stock as stock offering costs	$-	$505,917	$1,926,713
Issuance of warrants for deferred financing costs	$64,990	$-	$64,990
Conversion of debt to equity	$1,745,000	$-	$1,745,000

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

HEPALIFE TECHNOLOGIES, INC. AND SUBSIDIARIES

(A Development Stage Company)

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

DECEMBER 31, 2007

(Expressed in US Dollars)

NOTE 1 - BASIS OF PRESENTATION - GOING CONCERN UNCERTAINITIES

HepaLife Technologies, Inc. (the Company) was incorporated in 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 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 HepaLife include 1) the first-of-its-kind artificial liver device, 2) proprietary in-vitro toxicology and pre-clinical drug testing platforms, and 3) novel cell-culture based vaccine production methods for the manufacture of vaccines against H5N1 avian influenza and other viruses.

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 and may cause it to cease operations. 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 issued a Convertible Note and warrants for gross proceeds of $2,125,000 on May 11, 2007 (Note 8). Management believes that its current and future plans enable it to continue operations through December 31, 2008. 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 include the accounts of HepaLife Technologies, Inc. and its subsidiaries, Phoenix BioSystems, Inc., HepaLife Technologies Ltd. and HepaLife Biosystems Inc. Phoenix BioSystems, Inc. was incorporated under the laws of the State of Nevada on June 6, 2006. HepaLife Technologies Ltd. was incorporated on April 11, 2007 in British Columbia, Canada, for the purpose of streamlining business operations in Canada. HepaLife Biosystems Inc., was incorporated in State of Nevada on April 17, 2007 for the purpose of categorizing operations and accounting associated with the Company s ongoing research and development efforts associated with its patented PICM-19 cell line, artificial liver technologies, and in vitro toxicology testing systems. All significant inter-company 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) Reclassification

Certain prior period amounts have been reclassified to conform with current year presentation.

(e) 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, 2007 and 2006. The Company occasionally has cash deposits in excess of insured limits.

(f) 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 - 2 years

Repairs and maintenance expenses are charged to operations as incurred.

(g) Research and Development

Research and development costs are expensed as incurred.

(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.

(j) Stock-Based Compensation

The Company accounts for stock-based compensation under SFAS No. 123(R) Share-Based Payment , which requires measurement of compensation cost for all stock-based awards at fair value on the date of grant and recognition of compensation over the service period for awards expected to vest. The fair value of stock options is determined using the Black-Scholes valuation model.

(k) 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.

(l) 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.

(m) 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. No

impairment of intangible assets was recorded during the years ended December 31, 2007 and 2006.

(n) 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.

(o) 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.

(p) 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).

(q) New Accounting Pronouncements

In December 2007, the FASB issued SFAS No. 141(R), "Business Combinations" ("SFAS 141(R)"), which replaces SFAS No. 141. SFAS No. 141(R) establishes principles and requirements for how an acquirer recognizes and measures in its financial statements the identifiable assets acquired, the liabilities assumed, any non-controlling interest in the acquiree and the goodwill acquired. The Statement also establishes disclosure requirements which will enable users to evaluate the nature and financial effects of the business combination. SFAS 141(R) is effective for fiscal years beginning after December 15, 2008. The adoption of SFAS 141(R) will have an impact on accounting for business combinations once adopted, but the effect is dependent upon acquisitions at that time.

In December 2007, the FASB issued SFAS No. 160, "Noncontrolling Interests in Consolidated Financial Statements - an amendment of Accounting Research Bulletin No. 51" ("SFAS 160"), which establishes accounting and reporting standards for ownership interests in subsidiaries held by parties other than the parent, the amount of consolidated net income attributable to the parent and to the non-controlling interest, changes in a parent's ownership interest and the valuation of retained non-controlling equity investments when a subsidiary is deconsolidated. The Statement also establishes reporting requirements that provide sufficient disclosures that clearly identify and distinguish between the interests of the parent and the interests of the non-controlling owners. SFAS 160 is effective for fiscal years beginning after December 15, 2008. The Company has not determined the effect that the application of SFAS 160 will have on its consolidated financial statements.

NOTE 3 - RELATED PARTY TRANSACTIONS

Management Fees: During the year ended December 31, 2007, the Company paid management fees of $4,900 (2006: $10,800) to the directors. There is no management or consulting agreement in effect nor is there an agreement in place to convert debt to equity.

Notes Payable and Accrued Interest: As of December 31, 2007, notes payable of $877,800 was made up from unsecured loans of $677,800 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, 2007, amounted to $208,330 (2006: $158,535).

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 $35,740 (2006: $38,656) for the year ended December 31, 2007.

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., MicroChannel Technologies Corporation 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 4 - COOPERATIVE AGREEMENTS

(i) Cooperative Research and Development 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), and 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 later to December 1, 2007 and the required total payments to ARS were amended to $807,828; of which the entire amount was paid as of December 31, 2007.

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.

(ii) New Cooperative Research and Development Agreement

On November 20, 2007, HepaLife Technologies, Inc. entered into a new Cooperative Research and Development Agreement (the CRADA) with the U.S. Department of Agriculture, Agricultural Research Service pertaining to the continued development and use of patented liver cell lines in artificial liver devices and in-vitro toxicological testing platforms.

The Company has to pay a license execution fee for existing and future patents related to the PICM-19 hepatocyte cell lines in the amount of $150,000 and annual license maintenance fee of $10,000 per year from 2010 to 2012, $20,000 in 2013 and $50,000 each year thereafter until the expiration of the last to expire licensed patents.

The Company also has to pay in total $200,000 as milestone payments upon completion of three different milestone events.

The Company has to pay royalties of 3% to 6% on the net sales of any resulting licensed products.

As of December 31, 2007, total payments of $144,103 have been paid, including $75,000 (capitalized) of the $150,000 for license fee.

NOTE 5 - LICENSE AGREEMENT

On June 15, 2006, the Company, through its 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 until the expiration of the last to expire of the patents, or until fifteen (15) years after the effective date of June 15, 2006, whichever is longer.

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, 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 PBS had no assets or liabilities no value allocated to the minority interest. As PBS has no assets or liabilities, no value was allocated to the minority interest.

As of December 31, 2007, total payment of $73,352 has been paid in relation to the project, including the reimbursement of research expenses of $64,851 to MSU.

NOTE 6 - EQUIPMENT

	2007	2006
Computer equipment	$37,382	$33,504
furniture and fixtures	1,089	1,089
	38,471	34,593
Less: accumulated depreciation	(27,589)	(11,334)
	$10,882	$23,259

Depreciation expenses charged to operations for the year ended December 31, 2007 were $16,255 (2006: $6,528).

NOTE 7 - SHARE CAPITAL

Under the New Purchase Agreement with Fusion Capital Fund II (Fusion Capital) dated January 20, 2006, Fusion Capital had agreed to purchase from the Company up to $15,000,000 of the Company s share of common stock over a thirty month period. On May 11, 2007, the Company and Fusion Capital mutually terminated the Common Stock Purchase Agreement. The Company did not incur any termination costs as a result of mutually terminating this agreement.

During the year ended December 31, 2007, Fusion Capital has purchased 891,019 (2006: 2,154,661) shares of common stock of the Company for total proceeds of $495,001 (2006: $1,719,996).

NOTE 8 - CONVERTIBLE PROMISSORY NOTE

(i) The Agreement

On May 11, 2007, the Company entered into a Securities Purchase Agreement (the Agreement) with GCA Strategic Investment Limited (the Purchaser). The Agreement provided for the sale of $2,500,000 aggregate principal amount of Company's Convertible Note due May 11, 2009 (the Convertible Note). The Convertible Note was issued on May 11, 2007 and the purchase price of the Convertible Note was $2,125,000 (eighty-five per cent of the principal amount of the Convertible Note). The Convertible Note does not bear interest except upon an event of default, at which time interest shall accrue at the rate of 18% per annum. Under the terms of the Agreement, the Purchaser agreed not to effect, or cause any affiliate or associate to effect a short sale of Company's common stock.

In connection therewith, the Company also issued to the Purchaser warrants to purchase up to an aggregate of 670,000 shares of the Company s common stock at a price of $1.50 per share (the Warrants). The Warrants have a term of five years.

The Company also agreed to pay:

Global Capital Advisors, LLC (Adviser), the Purchaser's adviser, out of pocket fees of $15,000; and

Equinox Securities, Inc., an NASD registered broker/dealer, pursuant to an agreement dated April 19, 2007 10% of the amount funded ($212,500) plus a warrant to purchase a number of shares of the Company s common stock equal to 10% (in this case, 67,000 shares) of the number of shares subject to the Warrants at the same exercise price as set forth in the Warrants ($1.50 per share) in consideration of its efforts in securing, on behalf of the Company, the financing with the Purchaser.

(ii) Conversion of the Convertible Note

The Convertible Note (and any accrued and unpaid interest or liquidated damages amount) may be converted into shares of the Company's common stock at a conversion price will be 95% of the trading volume weighted average price, as reported by Bloomberg LP (the VWAP), for the five trading days immediately prior to the date of notice of conversion.

(iii) Prepayment of the Convertible Note

For so long as Company is not in default and Company is not in receipt of a notice of conversion from the holder of the Note, the Company may, at its option, prepay, in whole or in part, this Convertible Note for a pre-payment price (the Prepayment Price) equal to the greater of (A) the outstanding principal amount of the Note plus all accrued and unpaid interest if any, and any outstanding liquidated damages, if any, and (B)(x) the number of shares of Common Stock into which this Convertible Note is then convertible, times (y) the VWAP, as reported by Bloomberg L.P., of the Company s Common Stock for the five Trading Days immediately preceding the date that this Convertible Note is noticed for prepayment, plus accrued and unpaid interest.

(iv) Redemption of the Convertible Note

The Company may be required under certain circumstances to redeem any outstanding balance of the Convertible Note. In such an event, the redemption price will be equal to the then outstanding principal amount of the Notes plus all accrued and unpaid interest, including default interest, if any, and any outstanding liquidated damages (the Redemption Price).

(v) Bifurcation of the Warrants from the Convertible Note and the Intrinsic Value of the Beneficial Conversion Feature of the Note

The Note contains a conversion feature that allows the holder to convert the debt into equity shares at any time within a specified period at a price equal to 95% of the volume weighted average price of the Company s common shares for the five trading days prior to the conversion date. As the host contract itself does not embody a claim to the residual interest in the Company and thus the economic characteristics and risks of the host contract should be considered that of a debt instrument and classified under the liability section of the balance sheet.

The Company has determined that the embedded conversion option does not meet the definition of a derivative as described under Statement of Financial Accounting Standards No. 133: *Accounting for Derivative Instruments and Hedging Activities* (SFAS 133) paragraph 12(a) and 12(c) as the conversion option results in a fixed monetary benefit, known at the measurement date, to the holder if they chose to convert.

The Convertible Note is a complex hybrid instrument bearing an option, the alternative choices of which cannot exist independently of one another. Thus the beneficial conversion feature cannot be separated from the debt according to paragraph 7 and 12 of Accounting Principal Board Opinion 14: *Accounting for Convertible Debt and Debt Issued with Stock Purchase Warrants* (APB 14). The embedded beneficial conversion feature is recognized and measured in accordance with paragraph 5 of Emerging Issues Task Force 98-5: *Accounting for Convertible Securities with Beneficial Conversion Features or Contingently Adjustable Conversion Ratios* (EITF 98-5) and paragraph 5 of Emerging Issues Task Force 00-27: *Application of Issue No. 98-5 to Certain Convertible Instruments* (EITF 00-27), whereby the intrinsic value of the beneficial conversion feature is calculated at the commitment date as the difference between the effective conversion price of the Note and the fair value of the common stock which the Note is convertible, multiplied by the number of shares into which the Note is convertible. The intrinsic

value of the beneficial conversion feature, $1,220,410, is treated as a discount on issuance of the Convertible Note and is amortized over the life of the Note.

The warrants are detached from the Notes with no put option feature. There is no liquidated damage or cash penalty payable to the warrant holder if the Company cannot register the shares underlying the warrants. According to paragraph 16 of APB 14, the portion of the proceeds of the Notes issued with the detachable warrants which is allocable to the warrants is accounted for as paid-in capital. The allocation is based on the relative fair values of the two securities at the time of issuance. The portions of the proceeds allocated to the Notes and warrants were $1,627,311 and $497,689 (See Note 10) respectively. The resultant discount is amortized over the life of the Note.

During the year ended December 31, 2007, Notes in the amount of $1,745,000 were converted into 2,604,721 shares.

During the year ended December 31, 2007, $1,624,756 of the discount on issuance of Note was recorded in the statement of operations, leaving $468,343 unamortized as at December 31, 2007.

NOTE 9 - WARRANTS

As of December 31, 2007, there were 737,000 warrants outstanding (Note 8). Each warrant entitles the holder to purchase one share of the common stock of the Company at an exercise price of $1.50 per share until May 11, 2012. The fair value of the 737,000 warrants issued on May 11, 2007 was $714,890 and was estimated using the Black-Scholes option pricing model with assumptions as follows:

Risk free interest rate	4.58%
Expected life of the conversion feature in years	5.0 years
Expected volatility	96.2%
Dividend per share	$0.00

NOTE 10 - STOCK OPTIONS

As of December 31, 2007, 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, 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		
Granted	2,026,750	0.52		
Cancelled	(10,350,000)	0.67		
Outstanding at December 31, 2007	2,026,750	0.52	9.09	$-
Exercisable at December 31, 2007	-	$0.52		
Available for grant at December 31, 2007	35,771,250			

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 the year ended December 31, 2007 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, 2007. This amount change is based on

the fair market value of the Company s stock. Total intrinsic value of options exercised was $nil (2006: $nil) for the year ended December 31, 2007. Weighted average fair value of options granted during the year ended December 31, 2007 was $0.43 (2006: $nil) per share.

A summary of the Company s unvested stock options and changes during the periods is as follows:

	Number of options	Fair value per share
Outstanding, December 31, 2005	-	$-
Granted during 2006	8,250,000	0.49
Vested during 2006	(3,600,000)	0.47
Outstanding, December 31, 2006	4,650,000	0.51
Granted during 2007	2,026,750	0.43
Cancelled during 2007	(4,650,000)	0.51
Outstanding, December 31, 2007	2,026,750	0.43

On March 3, 2007, the Company cancelled 8,100,000 stock options previously granted to employees, comprising of 2,100,000 and 6,000,000 options at an exercise price of $0.07 and $0.85 each, respectively.

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 the Company 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 the Company 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 the Company 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 the Company 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).

The fair value of the 2,000,000 options granted was estimated at $0.38 each, for a total of amount of $760,000, by using the Black-Scholes Option Pricing Model with the following weighted average assumptions: dividend yield of 0%, expected volatility of 93.95%, risk-free interest rates of 4.85%, and expected lives of 4.7 years.

Additional stock-based compensation expense of $58,337 will be recognized over the remaining requisite service period as a result of the cancellation and re-issuance of stock options.

On December 1, 2007, the Company granted options to two employees to purchase up to 17,000 shares of the Company s common stock at an exercise price of $0.58. The options are vested in 4,250 options each upon achieving each of the four goals set by the Company. The four goals are expected to be achieved on or before March 31, 2008, June 30, 2008, September 30, 2008 and December 31, 2008 respectively.

On December 1, 2007, the Company granted options to an employee to purchase up to 9,750 shares of the Company s common stock at an exercise price of $0.58. Of the total options, 750 options vest upon achieving the first goal of the Company. The remaining options are vested in 2,250 options each upon achieving each of the four goals set by the Company. The four goals are expected to be achieved on or before March 31, 2008, June 30, 2008, September 30, 2008 and December 31, 2008 respectively.

The fair value of the 26,750 options granted was estimated at $0.25 each, for a total of amount of $6,688, by using the Black-Scholes Option Pricing Model with the following weighted average assumptions: dividend yield of 0%, expected volatility of 94.73%, risk-free interest rates of 3.41%, and expected lives of 5 years.

During the year ended December 31, 2007, compensation expense of $935,044 (2006: $2,607,302) was recognized for options previously granted and vesting over time and is recorded in Salaries and Benefits on the Consolidated Statements of Operations. As of December 31, 2007, the Company had $580,179 of total unrecognized

compensation cost related to unvested stock options, which is expected to be recognized over a weighted average period of years.

The options outstanding and exercisable as of December 31, 2007 can be summarized as follows:

	Outstanding			Exercisable	
Range of Exercise Prices	Number Outstanding at December 31, 2007	Weighted Average Remaining Contractual Life (Years)	Weighted Average Exercise Price	Number Exercisable at December 31, 2007	Weighted Average Exercise Price
$0.52	2,000,000	9.08	$0.52	-	$0.52
0.58	26,750	9.93	0.58	-	0.58
0.52	2,026,750	9.09	0.52	-	0.52

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, 2007 and 2006 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 deferred tax assets are summarized as follows:

	2007	2006

Net operating loss carryforwards	$2,262,000	$1,682,000
Stock compensation costs	1,204,000	886,000
Other	683,000	624,000
	4,149,000	3,192,000
Valuation allowance	(4,149,000)	(3,192,000)
Net deferred tax assets	$-	$-

The 2007 increase in the valuation allowance was $957,000 (2006: $1,386,000).

The Company has available net operating loss carryforwards of approximately $6,653,000 (2006 - $4,947,000) for tax purposes to offset future taxable income which expire commencing 2008 to 2027. Additionally, research and development, start-up costs of approximately $1,834,000 are available to reduce taxable income (2006 - $1,834,00), assuming normal operations have commenced. The tax years 2005 through 2007 remain open to examination by federal authorities and other jurisdictions of which the company operates.

A reconciliation between the statutory federal income tax rate (34%) and the effective rate of income tax expense for 2007, 2006 and 2005 is as follows:

	2007	2006	2005
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 EVENTS

In January 2008, the remaining convertible notes, $755,000, were converted into 2,342,415 common shares of the Company.

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

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

ITEM 9A(T): CONTROLS AND PROCEDURES.

Evaluation of Disclosure Controls and Procedures

We maintain disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) of the Securities Exchange Act of 1934, as amended (the Exchange Act)) that are designed to be effective in providing reasonable assurance that information required to be disclosed in our reports under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the rules and forms of the United States Securities and Exchange Commission, and that such information is accumulated and communicated to our management to allow timely decisions regarding required disclosure.

In designing and evaluating disclosure controls and procedures, management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable, not absolute assurance of achieving the desired objectives. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, have been detected. These inherent limitations include the realities that judgments in decision-making can be faulty and that breakdowns can occur because of simple error or mistake. The design of any system of controls is based, in part, upon certain assumptions about the likelihood of future events and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions.

As of the end of the period covered by this report, we carried out an evaluation, under the supervision and with the participation of management, including our chief executive officer and chief financial officer, of the effectiveness of the design and operation of our disclosure controls and procedures. Based upon that evaluation, management concluded that our disclosure controls and procedures are effective as of December 31, 2007 to cause the information required to be disclosed by us in reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods prescribed by United States Securities and Exchange Commission, and that such information is accumulated and communicated to management, including our chief executive officer and chief financial officer, as appropriate, to allow timely decisions regarding required disclosure.

Evaluation of and Report on Internal Control over Financial Reporting

Management is responsible for establishing and maintaining adequate internal control over financial reporting of the Company. Management, with the participation of our chief executive officer and chief financial officer, has evaluated the effectiveness of our internal control over financial reporting as of December 31, 2007 based on the criteria established in Internal Control - Integrated Framework issued by the Committee of Sponsoring Organizations (COSO). Based on this evaluation, management concluded that, as of December 31, 2007, our internal control over financial reporting is effective in providing reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with U.S. generally accepted accounting principles.

This annual report does not include an attestation report of the Company's independent registered public accounting firm regarding internal control over financial reporting. Management's report was not subject to attestation by the Company's independent registered public accounting firm pursuant to temporary rules of the SEC that permit the Company to provide only management's report in this annual report.

There have been no 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 39). 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 43). 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 46). 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), MicroChannel Technologies Corporation (currently secretary, treasurer, 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., MicroChannel Technologies Corporation, 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 2007 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, 2007, 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 2007 that exceeded $100,000.

Summary Compensation Table

Name and Principal Position	Year	Salary	Bonus	Other(1)	Securities Underlying Options Granted	All Other Compensation
Frank Menzler	2007	$225,000	$0			

$0

2,000,000

$0

President, CEO

2006

$56,250

$0

$0

0

$0

Director

2005

$0

$0

$0

0

$0

Harmel S. Rayat

2007

$0

$0

$0

0

$0

Secretary, Treasurer

2006

$0

$0

$0

0

$0

Chief Financial

2005

$0

$0

$2,300

0

$0

Officer, Chairman

and Director

Javier Jimenez

2007

$0

$0

$3,050

0

$0

Director

2006

$0

$0

$0

0

$0

2005

$0

$0

$0

0

$0

Arian Soheili (2)

2007

$0

$0

$1,050

0

$0

Former Secretary,

2006

$0

$0

$3,600

0

$0

Treasurer, Director

2005

$0

$0

$4,900

0

$0

Jasvir Kheleh (3)

2007

$0

$0

$1,050

0

$0

Former Director

2006

$0

$0

$3,600

0

$0

2005

$0

$0

$4,100

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 2007 to the named officers and directors:

Name	Number of Securities Underlying Options Granted to Employees in 2007	% of Total Options Granted	Exercise Price ($/sh)	Expiration Date
Frank Menzler	2,000,000	99%	$0.52	January 25, 2017
Harmel Rayat	0	0	n/a	n/a

Javier Jimenez

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, 2007

Options on December 31, 2007

Name

Exercisable

Unexercisable

Exercisable

Unexercisable

Frank Menzler

0

2,000,000

0

$730,000

Harmel Rayat

0

0

0

0

Javier Jimenez

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 24, 2008, 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

56%

216-1628 West First Avenue

Vancouver, B.C. V6J 1G1 Canada

Directors and Executive Officers

46,213,056

59%

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, 2007, the Company paid management fees of $4,900 (2006: $10,800) to the directors. There is no management or consulting agreement in effect nor is there an agreement in place to convert debt to equity.

Notes Payable and Accrued Interest: As of December 31, 2007, notes payable of $877,800 was made up from unsecured loans of $677,800 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, 2007, amounted to $208,330 (2006: $158,535).

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 $35,740 (2006: $38,656) for the year ended December 31, 2007.

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., MicroChannel Technologies Corporation 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, 2007 and December 31, 2006 were $25,770 and $30,830 respectively.

Tax fees: The aggregate fees billed to us for tax compliance, tax advice and tax planning by our principal accountant for fiscal 2007 and 2006 were $0.

All Other Fees: The aggregate fees, including expenses, billed for all other services rendered to us by our principal accountant during year 2007 and 2006 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

November 8, 2007: On November 2, 2007, HepaLife Technologies, Inc. entered into an exclusive license agreement with the U.S. Department of Agriculture, Agricultural Research Service (USDA, ARS) for the use of patented liver cell lines in artificial liver devices and in-vitro toxicological testing platforms.

November 16, 2007: On November 8, 2007, HepaLife Technologies, Inc. issued a news release to that the Company has entered into an exclusive license agreement with the U.S. Department of Agriculture, Agricultural Research Service (USDA, ARS) for the use of patented liver cell lines in artificial liver devices and in-vitro toxicological testing platforms.

November 28, 2007: On November 20, 2007, HepaLife Technologies, Inc. entered into a Cooperative Research and Development Agreement (the CRADA) with the U.S. Department of Agriculture, Agricultural Research Service (USDA-ARS) pertaining to the continued development and use of patented liver cell lines in artificial liver devices and in-vitro toxicological testing platforms.

December 19, 2007: On December 17, 2007, HepaLife Technologies, Inc. issued a news release to announce details of a series of significant achievements in the development of the first-of-its-kind bioartificial liver device, allowing the Company to move closer to initial in-vivo trials.

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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, 2007, to be signed on its behalf by the undersigned, thereunto duly authorized on this 28th day of March, 2008.

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 28, 2008

Frank Menzler

Chief Executive Officer

/s/ Harmel S. Rayat

Director, Chairman

March 28, 2008

Harmel S. Rayat

Secretary, Treasurer

Chief Financial Officer,

Principal Accounting Officer

/s/ Javier Jimenez

Director

March 28, 2008

Javier Jimenez

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