HEPALIFE TECHNOLOGIES INC
Form 424B3
July 21, 2009

Pursuant to Rule 424(b)(3)
Registration number - 333-160472

PROSPECTUS

HEPALIFE TECHNOLOGIES, INC.

12,989,830 SHARES OF COMMON STOCK

This prospectus relates to the resale by certain of our stockholders named in the section of this prospectus titled Selling Stockholders (the Selling Stockholders) of up to 12,989,830 shares of our common stock (the Shares). The shares being offered under this prospectus are comprised of shares of our common stock which may be issued to certain of the Selling Stockholders upon the exercise of outstanding Series C Warrants.

Although we will pay substantially all the expenses incident to the registration of the shares, we will not receive any proceeds from the sales by the Selling Stockholders. We will, however, receive proceeds if the Series C Warrants are exercised; to the extent we receive such proceeds, they will be used for working capital purposes. There is no assurance that any of the Series C Warrants will be exercised.

The Selling Stockholders and any underwriter, broker-dealer or agent that participates in the sale of the shares or interests therein may be deemed "underwriters" within the meaning of Section 2(11) of the Securities Act. Any discounts, commissions, concessions, profit or other compensation any of them earns on any sale or resale of the shares, directly or indirectly, may be underwriting discounts and commissions under the Securities Act. The Selling Stockholders who are "underwriters" within the meaning of Section 2(11) of the Securities Act will be subject to the prospectus delivery requirements of the Securities Act.

Our common stock is quoted on the NASD s Over-The-Counter Bulletin Board (the **OTCBB**) under the symbol **HPLF.** The closing sale price for our common stock as reported on the OTCBB on June 29, 2009, was $0.20. The Selling Stockholders may sell their shares at fixed prices, prevailing market prices at the time of sale, varying prices determined at the time of sale or at negotiated prices.

Investing in our common stock is highly speculative and involves a high degree of risk. You should carefully consider the risks and uncertainties described under the heading "Risk Factors" beginning on page 6 of this prospectus before making a decision to purchase our common stock. You should read this prospectus and any prospectus supplement carefully before you decide to invest. You should not assume that the information in this prospectus is accurate as of any date other than the date on the front of this document.

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

THE DATE OF THIS PROSPECTUS IS JULY 17, 2009

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ABOUT THIS PROSPECTUS

You should rely only on the information contained in this prospectus. We have not authorized anyone to provide you with information different from that contained in this prospectus. The Selling Stockholders are offering to sell and seeking offers to buy shares of our common stock, including shares they acquire upon exercise of their warrants, only in jurisdictions where offers and sales are permitted. The information contained in this prospectus is accurate only as of the date of this prospectus, regardless of the time of delivery of this prospectus or of any sale of our common stock. The prospectus will be updated and updated prospectuses made available for delivery to the extent required by the federal securities laws.

No person is authorized in connection with this prospectus to give any information or to make any representations about us, the Selling Stockholders, the securities or any matter discussed in this prospectus, other than the information and representations contained in this prospectus. If any other information or representation is given or made, such information or representation may not be relied upon as having been authorized by us or any Selling Stockholder. This prospectus does not constitute an offer to sell, or a solicitation of an offer to buy the securities in any circumstances under which the offer or solicitation is unlawful. Neither the delivery of this prospectus nor any distribution of securities in accordance with this prospectus shall, under any circumstances, imply that there has been no change in our affairs since the date of this prospectus. The prospectus will be updated and updated prospectuses made available for delivery to the extent required by the federal securities laws.

PROSPECTUS SUMMARY

*This summary highlights information set forth in greater detail elsewhere in this prospectus. It may not contain all the information that may be important to you. You should read this entire prospectus carefully, including the sections entitled "**Risk Factors**" beginning on page 6, "**Management's Discussion and Analysis of Financial Condition and Results of Operations,** beginning on page 18 and our historical financial statements and related notes included elsewhere in this prospectus.*

*Unless the context otherwise requires, the terms **we**, **our**, **us**, the **Company**, and **HepaLife** refer to HepaLife Technologies, Inc., a Florida corporation and not to the Selling Stockholders individually or collectively.*

About Us and Our Business

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.

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.

We are a development stage biotechnology company. We do not have, and may never develop, any commercialized products. We have not generated any revenue from our current operations and do not expect to do so for the foreseeable future. On December 31, 2008, we had an accumulated deficit of $19.3 million.

We are currently focused on the development of HepaMate , a cell-based bioartificial liver system, as a potential treatment for liver failure patients. HepaMate is designed to provide whole liver function in patients with the most severe forms of liver failure by combining the process of removing toxins from the patient s blood (detoxification) with concurrent liver cell therapy. HepaMate has been successfully tested in a clinical Phase I study and was previously known as **HepatAssist**.

We acquired the HepatAssist technology and related assets from Arbios Systems, Inc. (or **Arbios**) in October 2008, as part of our ongoing efforts to enhance and strengthen our bioartificial liver development program. The assets we acquired (collectively, the **HepatAssist Related Assets**) from Arbios, include: over 12 patents and patent licenses; miscellaneous scientific equipment; United States Food and Drug Administration (**FDA**) Investigative New Drug application, including orphan drug and fast track designation; phase I and phase II/III clinical protocols and clinical data; and standard operating procedures for manufacturing and quality control. The HepatAssist Related Assets relate to the bioartificial liver device formerly known as HepatAssist, now referred to as HepaMate .

We are currently working towards optimizing our HepaMate bioartificial liver device for utilization in a new clinical phase III study followed, if warranted, by commercialization upon final regulatory approval. Our efforts are subject to governmental review and oversight. Please refer to Description of Business and Properties-Government Regulation.

Prior to our acquisition of the HepatAssist Related Assets from Arbios, we focused our efforts on the research and development of: a porcine stem cell line, and subclones thereof, which we refer to as the PICM-19 cell line for use in a bioartificial liver and in-vitro toxicology testing; and on the development and potential commercialization of a chicken cell line, and subclones thereof, which we refer to as the PBS-1 cell line.

The PICM-19 cell line has been developed for potential use in a bioartificial liver device and in-vitro toxicology platforms, and was exclusively licensed from the U.S. Department of Agriculture, Agricultural Research Service (**USDA-ARS**) in November 2007. In September 2008, the license was amended in order to expand the field-of-use to allow for use of the PICM-19 cell line as in-vitro infection host systems for viral and protozoan agents such as malaria. We are continuing to evaluate the further optimization of our PICM-19 liver stem cell line.

The PBS-1 cell line was developed for potential use in cell-based vaccine production and was exclusively licensed from Michigan State University (**MSU**) in June 2006. In January 2009, we provided written notice to MSU terminating the license agreement effective April 24, 2009.

Private Placement

On May 23, 2008, we completed a private placement (the **Private Placement**) of 10,660,705 units (the "**Units**") at a price of $0.425 per Unit or $4,530,800 in the aggregate. Each Unit consisted of one share (collectively, the **Unit Shares**) of the Company s common stock and one Series C Stock Purchase Warrant to purchase a share of common stock at $0.55 per share for a period of two years from the date of issuance (the **Series C Warrants**). Please refer to **Recent Financing.** The exercise price of the Series C Warrants was reduced to $0.34 just prior to our completion of the acquisition of the HepatAssist Related Assets and our issuance to Arbios of a stock purchase warrant (the **Series D Warrant**) entitling Arbios to purchase up to 750,000 shares of our common stock at a price of $0.35 per share. On April 22, 2009 we repurchased the Series D Warrant from Arbios. **Please refer to May 2008 Financing and Asset Acquisition.**

Loan Conversion

Simultaneously with the completion of the Private Placement, we and Mr. Harmel S. Rayat, our former Chief Financial Officer, Director and Controlling Shareholder, entered into an agreement pursuant to which Mr. Rayat (i) converted the entire outstanding principal amount ($877,800) of his loan (the **Loan**) to us into an aggregate of 2,065,412 Units, each Unit consisting of one share of our common stock and one Series C Warrant, at a conversion price of $0.425 per Unit and (ii) agreed to accept $150,000 in full payment and satisfaction of the accrued and unpaid interest on the Loan in the amount of $249,945. The securities issued to Mr. Rayat are restricted securities as that term is defined in Regulation D, as promulgated pursuant to the Securities Act of 1933, as amended; these securities are included in the registration statement.

Warrants

As of the date of this Prospectus, the following warrants were outstanding: 12,989,830 Series C warrants with an exercise price of $0.34 per share exercisable into common stock until May 23, 2010; and 737,000 warrants with an exercise price of $1.50 per share exercisable into common stock until May 11, 2012.

Registration

Under the terms of the registration rights agreement between us and the Selling Stockholders we were required to file, within 90 days (the **Filing Date**) of May 23, 2008 (the **Closing Date**), a registration statement (the **Registration Statement**) to register the resale of the Unit Shares and the shares issuable upon the exercise of the Series C Warrants. As the Unit Shares may now be sold by the Selling Stockholders in accordance with the provisions of Rule 144 as promulgated by the Securities and Exchange Commission (the **SEC**) pursuant to the Securities Act of 1933, as amended (the **Securities Act**), they are not included in the Registration Statement in which this Prospectus is included. **Please refer to May 2008 Financing.**

Summary Financial Information

The following tables set forth a summary of certain selected financial data. You should read this information together with the financial statements and the notes to the financial statements appearing elsewhere in this prospectus.

Statement of Operations Data:	**For the three Months Ended March 31, 2009**	**For the three Months Ended March 31, 2008**	**Year Ended December 31, 2008**	**Year Ended December 31, 2007**
Revenues	$0	$0	$0	$0
Loss from operations	$(453,331)	$(536,997)	$(2,961,820)	$(2,681,113)
Net loss available to stockholders	$(445,730)	$(1,245,278)	$(3,667,547)	$(4,438,197)
Basic and diluted net loss per share	$(0.00)	$(0.02)	$(0.04)	$(0.06)
Weighted average shares outstanding used in basic and diluted net loss per share calculation	91,996,829	78,370,004	85,952,917	74,101,897

Balance Sheet Data:	**March 31, 2009**	**March 31, 2008**	**December 31, 2008**	**December 31, 2007**
Cash	$2,777,661	$154,149	$3,084,155	$534,113
Total Assets	$2,845,059	$240,490	$3,182,871	$835,061
Total Liabilities	$259,283	$1,116,531	$292,377	$1,377,587
Total stockholders equity(deficit)	$2,585,776	$(876,041)	$2,890,494	$(542,526)
Working Capital (deficiency)	$2,580,776	$(959,316)	$3,077,621	$(552,479)

About This Offering

Securities Being Offered	Up to 12,989,830 shares of our common stock are being offered by the Selling Stockholders named in this Prospectus. Please refer to **Selling Stockholders.**
Initial Offering Price	The Selling Stockholders will sell our shares at prices established on the Over-the-Counter Bulletin Board during the term of this offering, at prevailing market prices, prices different than prevailing market prices or at privately negotiated prices. Please refer to **Plan of Distribution**.
Terms of the Offering	The Selling Stockholders will determine the terms relative to the sale of the common stock offered in this Prospectus.
Termination of the Offering	The offering will conclude when all of the 12,989,830 shares of common stock have been sold or at a time when the Company, in its sole discretion, decides to terminate the registration of the shares. The Company may decide to terminate the registration if it is no longer necessary due to the operation of the resale provisions of Rule 144 promulgated under the Securities Act of 1933. We may also terminate the offering for no given reason whatsoever.
Risk Factors	The securities offered hereby involve a high degree of risk and should not be purchased by investors who cannot afford the loss of their entire investment. Please refer to **Risk Factors.**

Common Stock Issued and OutstandingBefore Offering	91,996,829 shares of our common stock are issued and outstanding as of the date of this prospectus.
Maximum number of shares of Common Stock To Be Issued and Outstanding After Offering	104,722,946 shares of common stock. Assuming that all of the Series C Warrants are exercised

The Percentage of Outstanding Stock that this Offering Represents	12%, assuming the Selling Stockholders exercise all their warrants, and no exercise of any other outstanding warrants and options.
Compared to the Total Shares Outstanding	
Use of Proceeds	We will not receive any proceeds from the sale of the common stock by the Selling Stockholders. However, we will receive proceeds from any exercise of the Series C Warrants. We intend to use any proceeds received from the exercise of the Series C Warrants for working capital and other general corporate purposes. We, however, cannot assure you that any of the Series C Warrants will be exercised.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus contains forward-looking statements within the meaning of Section 27A of the Securities Act. 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**, **intend**, or **project** or the negative of these words or other variations on these words or comparable terminology. These statements are expressed in good faith and based upon a reasonable basis when made, but there can be no assurance that these expectations will be achieved or accomplished.

Such forward-looking statements include statements regarding, among other things, (a) the potential markets for our technologies, our potential profitability, and cash flows (b) our growth strategies, (c) expectations from our ongoing research and development activities (d) anticipated trends in the technology industry, (e) our future financing plans and (f) our anticipated needs for working capital. 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** and **Description of Our Business and Properties**, as well as in this prospectus 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 prospectus 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. In addition to the information expressly required to be included in this filing, we will provide such further material information, if any, as may be necessary to make the required statements, in light of the circumstances under which they are made, not misleading.

Although forward-looking statements in this report reflect the good faith judgment of our management, forward-looking statements are inherently subject to known and unknown risks, business, economic and other risks and uncertainties that may cause actual results to be materially different from those discussed in these forward-looking statements. Readers are urged not to place undue reliance on these forward-looking statements, which speak only as of the date of this report. We assume no obligation to update any forward-looking statements in order to reflect any event or circumstance that may arise after the date of this report, other than as may be required by applicable law or regulation. Readers are urged to carefully review and consider the various disclosures made by us in our reports filed with the Securities and Exchange Commission which attempt to advise interested parties of the risks and factors that may affect our business, financial condition, results of operation and cash flows. If one or more of these risks or uncertainties materialize, or if the underlying assumptions prove incorrect, our actual results may vary materially from those expected or projected. **We will have little likelihood of long-term success unless we are able to continue to raise capital from the sale of our securities until, if ever, we generate positive cash flow from operations.**

Risk Factors

Investing in our common stock involves a high degree of risk. Before investing in our common stock you should carefully consider the following risks, together with the financial and other information contained in this prospectus. If any of the following risks actually occurs, our business, prospects, financial condition and results of operations could be adversely affected. In that case, the trading price of our common stock would likely decline and you may lose all or a part of your investment.

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 $2,961,820 and $2,681,113, respectively, during the fiscal year ended December 31, 2008 and 2007. We incurred an operating loss of $453,331 and $536,997 for the three months ended March 31, 2009 and 2008, respectively. As a result, at December 31, 2008, and March 31, 2009 we had an accumulated deficit of, $19,321,616 and $19,767,346, respectively.

We have never generated revenue and we do not expect to generate significant revenues from our operations for at least the next three fiscal years. Our profitability will require the successful completion of our development efforts and the subsequent commercialization of our products. 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 Investor Relations And Branding Program Rather Than To Our Research And Development Program.

From inception through March 31, 2009, expenses for our shareholder, investor relations and name branding programs aggregated $ 4,156,994 or approximately 24% of total expenses as compared to total research, development and acquisition expenses during the same period of $1,964,749 or approximately 11% of total expenses. If we continue to expend funds in such a disproportionate manner we may not have sufficient capital 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.

Our Lack Of Diversification May Increase Our Risk.

We expect our prime source of revenue, if any, will be derived from the sale of proprietary bioartficial liver devices. If we are unsuccessful in our efforts, our lack of diversification may increase the risk of our business failing; in which event the value of your investment may diminish significantly, if not entirely.

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

We are a development stage company and have been engaged primarily in research and development activities and have not generated any revenues to date. There can be no assurance that we will be able to successfully manage the transition to a commercial enterprise. Potential investors should be aware of the problems, delays, expenses and difficulties frequently encountered by an enterprise in the early stage of development, which include unanticipated problems relating to development of proposed products, testing, regulatory compliance, manufacturing, competition, marketing problems and additional costs and expenses that may exceed current estimates. Our proposed products will require significant additional research and testing, and we will need to overcome significant regulatory burdens prior to commercialization.

At March 31, 2009, we had working capital of $2,580,776; although we believe that we have sufficient financial resources to sustain our current level of development activities through at least the end of December 31, 2010, any expansion, acceleration or continuation (beyond December 31, 2010) of such activities may require additional capital which may not be available to us, if at all, on terms and conditions that we find acceptable.

We cannot currently estimate with accuracy the amount of these funds because it may vary significantly depending on the results of our current development activities, product testing, the cost of filing, prosecuting, defending and enforcing patent claims, the regulatory process, clinical outcomes of trials, 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.

The Success Of Our Development Program Is Uncertain And We Expect To Be Engaged In 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 Development Program.

We expect to continue our current development program through at least 2010. 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 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 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 development efforts or that we will be able to generate any revenues from operations.

Our Bioartificial Liver Program Is In The Clinical Development Stage And The Results We Attain May Not Prove To Be Adequate For Purposes of Commercializing Any Products Or Otherwise To Support A Profitable Business Venture.

Our bioartificial liver program is in the clinical development stage. The technology had previously successfully passed clinical phase I/II trials and was tested in clinical phase II/III trials. The related Investigational New Drug (IND) Application with the U.S. Food and Drug Administration (**FDA**) was inactivated by the previous sponsor in 2007. We have not yet submitted for reactivation of the IND with the FDA

FDA approvals or clearances can take significant time, are expensive and full of uncertainties. There can be no assurances that our program will be successful. The ultimate results of our ongoing development program 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.

Additionally, approved products are subject to continuing FDA requirements relating to quality control and

quality assurance, maintenance of records, reporting of adverse events and product recalls, documentation, labeling and promotion of medical products. Compliance with such continued regulatory oversight may prove to be costly and may limit our ability to attain profitable operations.

We will require significant further clinical testing, regulatory approvals and significant additional investment before we will be in a position to attempt to commercialize products derived from our development program. We cannot currently estimate with accuracy the amount of these funds because it may vary significantly depending on the results of our current development activities, product testing, the cost of filing, prosecuting, defending and enforcing patent claims, the regulatory process, clinical outcomes of trials, manufacturing, marketing and other costs associated with the commercialization of products following receipt of approval from regulatory bodies and other factors.

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

We have yet to submit new clinical protocols, manufacturing procedures and products for regulatory approval. If any such products are submitted for approval, they must undergo rigorous clinical testing and an extensive regulatory approval process before they can be marketed. We cannot guarantee that regulatory approval will be granted. Many products clinically tested and submitted to 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 approvals 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 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 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. **Please refer to Description of Our Business and Properties-Government Regulation**.

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 development and manufacturing program does not generally involve the handling of potentially harmful biological materials or hazardous materials, but it may occasionally do so. 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 Ongoing Development Efforts, We May Rely On Third Parties For Certain Services.

Our ability to achieve profitability is dependent in part on ultimately obtaining regulatory approvals for products, if any, which are derived from our 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 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 may rely 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 ongoing 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. 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. Attracting desirable employees will require us to offer competitive compensation packages. The addition of such personnel may result in significant changes in our utilization of cash resources and our anticipated technology 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 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 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 brand 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 Be Exposed To Product Liability Claims For Which We Currently Do Not Have Any Insurance Coverage.

Because our activities involve the developing and clinical 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 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 research and development activities in the market.

Currently we do not carry any insurance but we may be required to obtain adequate insurance in order to pursue development and clinical trials of our technology. 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 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 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. Our officers and directors may also be officers, directors and employees of other companies, and we may have to compete with such other companies for their time, attention and efforts.

RISKS RELATED TO THE OFFERING AND OWNERSHIP OF OUR 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, the future sales of shares of common stock by our stockholders, including, but not limited to the Selling Stockholders pursuant to this Prospectus, the holders of our other outstanding warrants and options and us, could have an adverse dilutive effect on our outstanding shares and the market price of such shares.

The trading price of our common stock has, from time to time, fluctuated widely and in the future may be subject to similar fluctuations. The trading price may be affected by a number of factors including the risk factors set forth herein, as well as our operating results, financial condition, general economic conditions, market demand for our common stock, and various other events or factors both in and out of our control. In addition, the sale of our common stock into the public market upon the effectiveness of this registration statement could put downward pressure on the trading price of our common stock. In recent years, broad stock market indices, in general, and smaller capitalization companies, in particular, have experienced substantial price fluctuations. In a volatile market, we may experience wide fluctuations in the market price of our common stock. These fluctuations may have a negative effect on the market price of our common stock. To the extent our stock price fluctuates and/or remains low, it could cause you to lose some or all of your investment and impair our ability to raise capital through the offering of additional equity securities.

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

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

The Value And Transferability Of Your Shares May Be Adversely Impacted By The Limited Trading Market For Our Stock On The OTCBB, Which Is A Quotation System, Not An Issuer Listing Service, Market Or Exchange. Because Buying And Selling Stock On The OTCBB Is Not As Efficient As Buying And Selling Stock Through An Exchange, It May Be Difficult For You To Sell Your Shares Or You May Not Be Able To Sell Your Shares For An Optimum Trading Price.

The OTCBB is a regulated quotation service that displays real-time quotes, last sale prices and volume limitations in over-the-counter securities. Because trades and quotations on the OTCBB involve a manual process, the market information for such securities cannot be guaranteed. In addition, quote information, or even firm quotes, may not be available. The manual execution process may delay order processing and intervening price fluctuations may result in the failure of a limit order to execute or the execution of a market order at a significantly different price. Execution of trades, execution reporting and the delivery of legal trade confirmations may be delayed significantly. Consequently, one may not be able to sell shares of our common stock at the optimum trading prices.

When fewer shares of a security are being traded on the OTCBB, volatility of prices may increase and price movement may outpace the ability to deliver accurate quote information. Lower trading volumes in a security may result in a lower likelihood of an individual s orders being executed, and current prices may differ significantly from the price one was quoted by the OTCBB at the time of the order entry.

Orders for OTCBB securities may not be canceled or edited like orders for other securities. All requests to change or cancel an order must be submitted to, received and processed by the OTCBB. Due to the manual order processing involved in handling OTC Bulletin Board trades, order processing and reporting may be delayed, and an individual may not be able to cancel or edit his order. Consequently, one may not be able to sell shares of common stock at the optimum trading prices.

The dealer s spread (the difference between the bid and ask prices) may be large and may result in substantial losses to the seller of securities on the OTCBB if the common stock or other security must be sold immediately. Further, purchasers of securities on the OTCBB may not have a bid price for securities bought and sold through the OTCBB. Due to the foregoing, demand for securities that are traded through the OTCBB may be decreased or eliminated.

We have a large number of restricted shares outstanding, a portion of which may be sold under rule 144 which may reduce the market price of our shares.

As of the date of this Prospectus, we have outstanding 91,996,829 shares of our common stock. Of these shares, 61,203,911 shares are "restricted" securities, within the meaning of Rule 144 under the Securities Act, and may not be sold in the absence of registration under the Securities Act, unless an exemption from registration is available, including the exemption provided by Rule 144. Of these approximately 33,250,000 shares are held by persons who may be deemed affiliates.

In general, subject to the satisfaction of certain conditions, Rule 144 permits a person who presently is not and who has not been an affiliate of ours for at least three months immediately preceding the sale and who has beneficially owned the shares of common stock for at least six months to sell such shares without regard to any of the volume limitations described above. Assuming that all of the relevant criteria of Rule 144 is satisfied by both the shareholders owning the restricted shares and ourselves this provision applies to the to the 12,989,830 Unit Shares issued in connection with the Private Placement. After one year non-affiliates may sell without any restrictions under Rule 144.

Under Rule 144, subject to the satisfaction of certain other conditions, a person deemed to be one of our affiliates, who has beneficially owned restricted shares of our common stock for at least one year is permitted to sell in a brokerage transaction, within any three-month period, a number of shares that does not exceed the greater of 1% of the total number of outstanding shares of the same class, or, if our common stock is quoted on a stock exchange, the average weekly trading volume during the four calendar weeks preceding the sale, if greater. The possibility that substantial amounts of our common stock may be sold under Rule 144 into the public market may adversely affect prevailing market prices for the common stock and could impair our ability to raise capital in the future through the sale of equity securities. Please refer to **Description of Securities- Shares Eligible For Resale.**

Cost Of Compliance With Changing Regulation Of Corporate Governance And Public Disclosure Has And Will Continue To Result In Additional Expense.

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, has required 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.

FINRA Sales Practice Requirements May Also Limit A Stockholder s Ability To Buy And Sell Our Stock.

In addition to the penny stock rules described below, the FINRA has adopted rules that require that in recommending an investment to a customer, a broker-dealer must have reasonable grounds for believing that the investment is suitable for that customer. Prior to recommending speculative low priced securities to their non-institutional customers, broker-dealers must make reasonable efforts to obtain information about the customer s financial status, tax status, investment objectives and other information. Under interpretations of these rules, the FINRA believes that there is a high probability that speculative low priced securities will not be suitable for at least some customers. The FINRA requirements make it more difficult for broker-dealers to recommend that their customers buy our common stock, which may limit your ability to buy and sell our stock and have an adverse effect on the market for our shares.

MAY 2008 FINANCING

On May 23, 2008, we consummated the sale of an aggregate of 10,660,705 shares of our common stock and Series C Warrants to purchase up to an additional 10,660,705 shares of our common stock at a per share purchase price of $0.55 for an aggregate purchase price of $4,530,800 pursuant to the terms of a Subscription Agreement effective as of May 23, 2008 with certain Investors who are signatories to the Subscription Agreement. The Units were offered and sold to 12 accredited investors (the **Investors**) as defined in Regulation D as promulgated under the Securities Act of 1933, as amended (the **Securities Act**).

The securities that were issued to the Investors in the Private Placement were not registered under the Securities Act, and may not be offered or sold in the United States absent registration or an applicable exemption from the registration requirements of the Securities Act. In connection with the Subscriptions Agreement we entered into a Registration Rights Agreement dated May 23, 2008 with the Investors. Pursuant to the terms of the Registration Rights Agreement, we have agreed to register the resale of the Private Placement Shares and the Warrant Shares on a registration statement to be filed by us with the United States Securities and Exchange Commission (the **SEC**) under the Securities Act of 1933, as amended.

We agreed to use our commercially reasonable efforts to file the registration statement with the SEC within 90 days after May 23, 2008, to cause such registration statement to be declared effective by the SEC within the earlier of 90 days after May 23, 2008 (or, in the event, of a full review by the SEC, 180 days after May 23, 2008) or the 5th business day following the date on which we are notified by the SEC that the SEC will not review the registration statement or that the SEC has no further comments on the registration statement and to cause such registration statement to remain effective for the required registration period. The Registration Rights Agreement does not provide for any penalties in the event we do not meet the aforesaid target dates.

We were required to file, within 90 days (the **Filing Date**) of the May 23, 2008 (the **Closing Date**), a Registration Statement (the **Registration Statement**) to register the resale of the Unit Shares and the shares issuable upon the exercise of the Series C Warrants. The Registration Rights Agreement does not contain any provision for damages or penalties in the event we did not file within the prescribed period.

Pursuant to the terms of the Registration Rights Agreement, we were obligated to use commercially reasonable best efforts to keep the Registration Statement continuously effective under the Securities Act until all of the Unit Shares and the Series C Warrant Shares have been sold, or may be sold without volume restrictions pursuant to Rule 144 or any successor rule. Since the Unit Shares may now be sold by the Selling Stockholders pursuant to Rule 144 without volume restrictions, we have included only the shares issuable upon exercise of the Series C Warrant Shares in the Registration Statement.

On September 30, 2008, we voluntarily agreed to reduce the exercise price of the Series C Warrants to $0.34 per share in contemplation of the acquisition of the HepatAssist Related Assets from Arbios.

The Series C Warrants are exercisable for a period of two years at an exercise price of $0.34 per share beginning on May 23, 2008 and expiring on May 23, 2010. The number of shares issuable upon exercise of the Warrants and the exercise price of the Series C Warrants are adjustable in the event of stock splits, combinations and reclassifications, but not in the event of the issuance by us of additional securities, unless such issuance is at a price per share which is less than the then applicable exercise price of the warrants, in which event then the exercise price shall be reduced and only reduced to equal lower issuance price and the number of shares issuable upon exercise thereof shall be increased such that the aggregate exercise price payable thereunder, after taking into account the decrease in the exercise price, shall be equal to the aggregate exercise price prior to such adjustment.

Pursuant to the Subscription Agreement and the Registration Rights Agreement, the Company and the investor parties have made other covenants and representations and warranties regarding matters that are customarily included in financings of this nature.

In connection with the private placement, the agent was due a sales commission equal to $90,828 or two (2%) percent of the gross proceeds, which it elected to receive in the form of 213,713 Units. In addition, the Company issued an aggregate of 50,000 Units, in payment of legal fees in the amount of $21,250. These Units were otherwise issued on the same terms and conditions as the Units sold in the Private Placement.

Loan Conversion

Simultaneously with the completion of the Private Placement, we and Mr. Harmel S. Rayat, our former Chief Financial Officer, Director and Controlling Shareholder, entered into an agreement pursuant to which Mr. Rayat (i) converted the entire outstanding principal amount ($877,800) of his Loan to the Company into an aggregate of 2,065,412 Units, each Unit consisting of one share of our common stock and one Series C Warrant, at a conversion price of $0.425 per Unit and (ii) agreed to accept $150,000 in full payment and satisfaction of the accrued and unpaid interest on the Loan in the amount of $249,945. The securities issued to Mr. Rayat are restricted securities as that term is defined in Regulation D, as promulgated pursuant to the Securities Act of 1933, as amended.

ASSET ACQUISITION

On October 3, 2008, the Company entered into and consummated the transactions contemplated by the Asset Purchase Agreement (the **Purchase Agreement**) between us and Arbios Systems, Inc. The purchase price of the acquired assets consisted of: $450,000 in cash, of which $250,000 was paid at the closing and the payment of $200,000 was deferred for up to 18 months (the **Deferred Cash Purchase Price**); and a Series D Stock Purchase Warrant to purchase up to 750,000 shares of the Company s common stock at an exercise price of $0.35 per share for a period of 5 years. The Deferred Cash Purchase Price of $200,000 was due and payable on the earlier of (i) the date on which we consummate one or more debt or equity financings in which the gross proceeds received in the aggregate equal or exceed $4,000,000, or (ii) the eighteen month anniversary of the closing date.

We acquired the HepatAssist Related Assets (relating to the pig cell based liver device technology that was being developed by Arbios), in order to enhance and strengthen our current PICM-19 porcine liver cell line based bioartifical liver technology. The acquired assets relate to the bioartificial liver device formerly known as HepatAssist. HepatAssist was evaluated in the largest-ever phase II/III clinical study (prospective randomized trial involving over 170 patients) to test safety and efficacy of a bioartificial liver assist device. The clinical data was published in 2004.

The Acquired Assets (as defined in the Purchase Agreement) include: over 12 patents and patent licenses; miscellaneous scientific equipment; FDA Investigative New Drug (IND) application, including orphan drug and fast track designation; phase I and phase II/III clinical protocols and clinical data; and standard operating procedures for manufacturing and quality control.

The issuance of the Series D Warrant was deemed to be exempt from registration under the Securities Act of 1933, as amended (the **Securities Act**) in reliance on Section 4(2) of the Securities Act in that the issuance did not involve a public offering. We granted Arbios certain registration rights, as more fully set forth in the Registration Rights Agreement dated October 3, 2008 between us and Arbios, with respect to the shares of our common stock issuable upon exercise of the Series D warrant. Pursuant to the Registration Rights Agreement, if we have not filed with, and have declared effective by, the Securities and Exchange Commission, a registration statement within nine months of October 3, 2008, Arbios, to the extent applicable, will be entitled to utilize the cashless exercise provisions of the Series D Warrant. Because of our subsequent repurchase of the Series D Warrant, our obligation to register the underlying shares has terminated. **Please refer to Warrant Repurchase Agreement below**.

Warrant Repurchase Agreement

On April 22, 2009, we consummated the transactions contemplated by a Warrant Repurchase Agreement between us and Arbios. Pursuant to the Repurchase Agreement, we repurchased the Series D stock purchase warrant previously issued to Arbios as partial consideration pursuant to the Asset Purchase Agreement. In consideration thereof we accelerated payment of the Deferred Cash Purchase Price to April 22, 2009.

USE OF PROCEEDS

This prospectus relates to the resale of certain shares of our common stock that may be offered and sold from time to time by the Selling Stockholders. We will not receive any proceeds from the sale of shares of common stock in this offering. However, we will receive proceeds from the exercise, if any, of any Series C Warrants and we will use any such proceeds for working capital purposes. We cannot assure that any of the Series C Warrants will ever be exercised.

MARKET PRICE OF AND DIVIDENDS ON OUR COMMON STOCK AND RELATED STOCKHOLDER MATTERS

Market Information

Our common stock trades on the Over-the-Counter Bulletin Board under the trading symbol **HPLF**. The OTCBB is a regulated quotation service that displays real-time quotes, last-sale prices, and volume information in over-the-counter (OTC) equity securities. The OTCBB is a quotation medium for subscribing members, not an issuer listing service, and should not be confused with The NASDAQ Stock MarketSM.

Currently, there is only a limited public market for our stock on the OTCBB. You should also note that the OTCBB is not a listing service or exchange, but is instead a dealer quotation service for subscribing members. If our common stock is not quoted on the OTCBB or if a public market for our common stock does not develop, then investors may not be able to resell the shares of our common stock that they have purchased and may lose all of their investment. If we do establish a trading market for our common stock, the market price of our common stock may be significantly affected by factors such as actual or anticipated fluctuations in our operation results, general market conditions and other factors. In addition, the stock market has from time to time experienced significant price and volume fluctuations that have particularly affected the market prices for the shares of developmental stage companies, which may materially adversely affect the market price of our common stock. Accordingly, investors may find that the price for our securities may be highly volatile and may bear no relationship to our actual financial condition or results of operation.

The following table sets forth the range of high and low closing bid quotations for our common stock from January 1, 2007 through March 31, 2009. The quotations represent inter-dealer prices without retail markup, markdown or commission, and may not necessarily represent actual transactions.

	High	Low
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
First Quarter 2008	$0.47	$0.31
Second Quarter 2008	$0.73	$0.45
Third Quarter 2008	$0.48	$0.18
Fourth Quarter 2008	$0.31	$0.14
First Quarter 2009	$0.27	$0.15

On June 29, 2009, the closing price of a share of our common stock as reported on the OTCBB was $0.20.

Shareholder Information

Reports

Our stockholders have direct electronic access to all of our U.S. Securities & Exchange Commission filings via our website at www.hepalife.com, or via the U.S. Securities & Exchange Commission website at www.sec.gov. We send proxy filings to our stockholders as matters are voted on by all of our stockholders. When we do send information to our stockholders that relate to our annual meeting, our annual financial information contains audited information on which an opinion has been issued.

Common Stock

As of March 31, 2009, there were 91,996,829 shares of our common stock outstanding and held by approximately 69 stockholders of record (approximately 6,000 beneficial stockholders) of our Common Stock. We have no shares of preferred stock issued and outstanding.

Warrants

As of, March 31, 2009, we had 14,476,830 shares of common stock reserved for issuance upon exercise of outstanding warrants.

Securities Authorized for Issuance Under Equity Compensation Plans

Plan Category	Number of Securities to be issued upon exercise of outstanding options, warrants and rights (a)	Weighted-average exercise price of outstanding options, warrants and rights (b)	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a)) (c)
Equity compensation plans approved by security holders	2,700,000	$0.53	35,098,000
Equity compensation plans not approved by security holders			
Total	2,700,000	$0.53	35,098,800

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.

Registrar and Transfer Agent

The registrar and transfer agent for our securities is Holladay Stock Transfer, Inc., located at 2939 North 67th Place, Suite C, Scottsdale, AZ 85251.

MANAGEMENT DISCUSSION AND ANALYSIS OF

FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion and analysis is based upon our consolidated 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****,* ***Special Note Regarding Forward-Looking Statements****, and elsewhere in this Prospectus.*

Overview

We are a development stage biotechnology company focusing on the development of a cell-based bioartificial liver system, HepaMate , as a potentially lifesaving treatment for liver failure patients. The technology has previously been successfully tested in a clinical phase I study. As an extracorporeal cell-based bioartificial liver system, HepaMate is designed to combine blood detoxification with liver cell therapy to provide whole liver function in patients with the most severe forms of liver failure.

On October 3, 2008, in order to enhance and strengthen our pre-existing bioartificial liver development program, we acquired HepatAssist Related Assets from Arbios, which assets included over 12 patents and patent licenses; miscellaneous scientific equipment; FDA Investigative New Drug (IND) application, including orphan drug and fast track designation; phase I and phase II/III clinical protocols and clinical data; and standard operating procedures for manufacturing and quality control. The acquired assets relate to a bioartificial liver device formerly known as **HepatAssist.** HepatAssist passed clinical phase I studies was evaluated in the largest-ever phase II/III clinical study (prospective, randomized, multicenter, controlled trial involving over 170 patients) to test the safety and efficacy of a bioartificial liver assist device. The clinical data was published in 2004 and showed for bioartificial liver device treated patients in fulminant and sub-fulminant hepatic failure a significant survival advantage compared with the patient control group receiving standard-of-care treatment.

We are working towards optimizing the former HepatAssist bioartificial liver device for utilization in a new clinical phase II/III study followed, if warranted, by commercialization upon final regulatory approval.

Previously we focused our research, development and commercialization efforts on the development of a porcine stem cell line, and subclones thereof, which we refer to as the **PICM-19 cell line** for use in a bioartificial liver and in-vitro toxicology testing, and on the commercialization 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 potential use in cell-based vaccine production and was exclusively licensed from Michigan State University (**MSU**) in June 2006. In January 2009, we provided written notice to MSU terminating the license agreement effective April 24, 2009.

The PICM-19 cell line was developed for potential use in a bioartificial liver device and in-vitro toxicology platforms and was exclusively licensed from USDA Agricultural Research Service on November 2007. In September 2008 the license was amended for the expanded field-of-use as in-vitro infection host systems for viral and protozoan agents such as malaria.

On May 23, 2008, we completed a private placement of securities for an aggregate purchase price of $4,530,800. Simultaneously with the completion of the private placement, we converted our outstanding note payable of $877,800 into shares of common stock and warrants and the note holder agreed to accept $150,000 in full payment and satisfaction of the accrued and unpaid interest on the note payable in the amount of $249,945.

Asset Purchase Agreement

On October 3, 2008, we entered into and consummated the transactions contemplated by a purchase agreement with Arbios. In order to enhance and strengthen our current PICM-19 porcine liver cell line based bioartifical liver technology, we purchased certain specified assets of Arbios relating to the pig cell based liver device technology that was being developed by Arbios.

The purchase price of the acquired assets consisted of: $450,000 in cash, of which $250,000 was paid at the closing and $200,000 has been deferred for up to 18 months; a Series D Stock Purchase Warrant to purchase up to 750,000 shares of the Company s common stock at an exercise price of $0.35 per share for a period of 5 years. The Deferred Cash Purchase Price of $200,000 was due and payable on the earlier of (i) the date on which we consummate one or more debt or equity financings in which the gross proceeds received in the aggregate equal or exceed $4,000,000, or (ii) the eighteen month anniversary of the closing date.

The issuance of the Series D Warrant was deemed to be exempt from registration under the Securities Act in reliance on Section 4(2) of the Securities Act in that the issuance did not involve a public offering. We granted Arbios certain registration rights, as more fully set forth in the Registration Rights Agreement dated October 3, 2008 between the Company and Arbios, with respect to the shares of the Company s common stock issuable upon exercise of the Series D warrant. Pursuant to the Registration Rights Agreement, if we have not filed with, and have declared effective by, the Securities and Exchange Commission, a registration statement within nine months of October 3, 2008, Arbios, to the extent applicable, will be entitled to utilize the cashless exercise provisions of the Series D Warrant.

On April 22, 2009, we consummated the transactions contemplated by a Warrant Repurchase Agreement between us and Arbios. Pursuant to the Repurchase Agreement, we repurchased the Series D stock purchase warrant previously issued to Arbios as partial consideration pursuant to the Asset Purchase Agreement. In consideration thereof we accelerated payment of the Deferred Cash Purchase Price to April 22, 2009. The Series D Warrant entitled the holder to purchase up to 750,000 shares of our common stock at a price of $0.35 per share for a period of 5 years.

May 2008 Private Placement

On May 23, 2008, we completed a private placement (May 2008 Private Placement) pursuant to which we sold 10,660,705 units (Units) at a price of $0.425 per Unit or $4,530,800 in the aggregate. Each Unit consists of one share of our common stock (the Unit Shares) and one Series C stock purchase warrant (Series C warrant) to purchase a share of common stock at the initial exercise price of $0.55 per share for a period of two years from the date of issuance. In conjunction with our completion of the acquisition of the HepatAssist Related Assets in October 2008, we reduced the initial exercise price of the Series C warrants to $0.34 per share. We also issued an additional 263,713 Units in payment of placement and legal fees relating to this transaction. We have agreed to register for resale the Unit Shares and the shares of our common stock issuable upon exercise of our common stock.

Loan Conversion

Simultaneously with the completion of the May 2008 Private Placement, we entered into an agreement with Mr. Harmel S. Rayat, our former Chief Financial Officer, Director and Controlling Shareholder, pursuant to which Mr. Rayat (i) converted the entire outstanding principal amount ($877,800) of his loan to us into an aggregate of 2,065,412 Units, each Unit consisting of one share of our common stock and one Series C warrant, at a conversion price of $0.425 per Unit and (ii) agreed to accept $150,000 in full payment and satisfaction of the accrued and unpaid interest on the loan in the amount of $249,945.

Warrants

As of the date of this Prospectus, the following warrants were outstanding: 12,989,830 Series C warrants with an exercise price of $0.34 per share exercisable into common stock until May 23, 2010; and 737,000 warrants with an exercise price of $1.50 per share exercisable into common stock until May 11, 2012.

Warrant Repurchase Agreement

On April 22, 2009, we consummated the transactions contemplated by a Warrant Repurchase Agreement between us and Arbios.

Pursuant to the Repurchase Agreement, we repurchased the Series D stock purchase warrant previously issued to Arbios as partial consideration pursuant to the Asset Purchase Agreement. In consideration thereof we accelerated payment of the Deferred Cash Purchase Price to April 22, 2009. The Series D Warrant entitled the holder to purchase up to 750,000 shares of our common stock at a price of $0.35 per share for a period of five years.

Critical Accounting Policies

Our discussion and analysis of our financial condition and results of operations are based on our consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States. The preparation of these consolidated 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:

Research and Development Expenses

Research and development expenses represent costs incurred to develop our technology, as well as purchased in-process research and development programs. Until October 2008, the majority of costs incurred were pursuant to our Cooperative Research and Development Agreement (**CRADA**) with the USDA s Agricultural Research Service and pursuant to our sponsored research agreement with MSU. Third-party costs paid by us relating to these agreements include salaries and benefits for research and development personnel, allocated overhead and facility occupancy costs, contract services and other applicable costs. In addition, costs may include third party laboratory work. We charge all research and development expenses to operations as they are incurred, including internal costs, costs paid to sponsoring organizations, and purchased in-process research and development programs. We do not track research and development expenses by project.

General and Administrative Expenses

Our general and administrative expenses consist primarily of personnel related costs, legal costs, including intellectual property that is expensed when incurred, investor relations costs, stock based compensation costs, accounting costs, and other professional and administrative costs.

Stock-Based Compensation Expense

On January 1, 2006, we adopted Statement of Financial Accounting Standards No. 123 (revised 2004), "Share-Based Payment," (SFAS 123R), which requires the measurement and recognition of compensation expense for all share-based payment awards made to employees and directors based on estimated fair values. Our consolidated financial statements reflect the impact of SFAS 123(R) from the date of adoption.

Results of Operations

We have yet to establish any history of profitable operations and our accumulated deficit from inception through March 31, 2009 of $19,767,346. We have never generated any revenues from operations and do not expect to generate any revenues for the foreseeable future. We expect that our future revenues will not be sufficient to sustain our operations for the foreseeable future. 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.

We expect to continue to incur losses from business operations and we believe our cash and cash equivalents balances, anticipated cash flows from operations, and other external sources of credit will be sufficient to meet our cash requirements through December 2010. Our future after December 2010 will depend in large part on our ability to successfully raise capital from external sources to pay for planned expenditures and to fund operations.

Three Month Periods Ended March 31, 2009 and 2008

Operating Expenses

A summary of our operating expense for the three months ended March 31, 2009 and 2008 is as follows:

	Three Months Ended March 31, 2009	2008	Increase (Decrease)	Percentage Change
Expenses				
Salary and benefits	$ 200,048	$ 332,083	$ (132,035)	(39.8%)
Research and development	51,075	127,463	(76,388)	(59.9%)
Shareholder and investor relations	2,280	3,955	(1,675)	(42.4%)
Administrative and general	53,966	47,594	6,372	13.4%
Professional fees- accounting and legal	104,254	22,545	81,709	362.4%
Director, management and consulting fees	41,708	750	40,958	5461.1%
Depreciation	-	2,607	(2,607)	(100.0%)
Total operating expense	$ 453,331	$ 536,997	$ (83,666)	(15.6%)

A summary of our other income and expense for the three months ended March 31, 2009 and 2008 is as follows:

	Three Months Ended March 31, 2009	2008	Increase (Decrease)	Percentage Change
Other income and (expenses)				
Interest on promissory note	$ -	$ (22,930)	$ (22,930)	(100.0%)
Interest, bank charges and foreign exchange loss	(590)	(9,177)	(8,587)	(93.6%)
Interest income	10,540	2,897	7,643	263.8%
Amortization of discount on notes	(2,349)	(468,343)	(465,994)	(99.5%)
Amortization of deferred financing costs	-	(210,728)	(210,728)	(100.0%)
Total other expense	$ 7,601	$ (708,281)	$ (715,882)	(101.1%)

Salaries and benefits: We incurred salaries and benefits expense of $200,048 for the three-month period ended March 31, 2009, representing a decrease of approximately 40% or $132,035 from the same period in 2008. The majority of the decrease, $115,411, is due to fewer employees as we terminated the engagement of our research scientists effective November 30, 2008 as a result of our acquisition of the HepatAssist Related Assets from Arbios in October 2008 and due to our closing of the corporate office in Vancouver British Columbia on August 31, 2008, as we repositioned our strategic direction. The remaining $16,624 decrease is due to a decrease in stock compensation expense as large option grants have been fully expensed.

Research and development: We incurred $51,075 in research and development expenses representing a decrease of $76,388 or 60% primarily due to the cancellation of our CRADA with the USDA effective October 2008. As of March 31, 2009, twenty-nine percent, 29%, or $15,000 of research costs relates to the sponsored research agreement withMSU, which was cancelled effective April 24, 2009. We had not incurred expenses on this contract since 2007. We cancelled both the USDA and MSU research programs as a result of repositioning our strategic direction. The remaining 71% of research and development expenses for the period ended March 31, 2009 were expenses for the development of HepaMate.

Shareholder and investor relations: We incurred $2,280 of shareholder and investor relations expense which is $1,675 lower than for the same period in 2008. The decrease represents higher costs during 2008 due to completing a private placement in May 2008.

Administrative and general: We incurred $53,966 in administrative and general expenses, which is a net increase of $6,372 or 13% compared to the same period in 2008. The change is comprised of a decrease of $31,662 in facilities and travel expenses due to closing the corporate office in Vancouver British Columbia on August 31, 2008, offset by an increase of $38,034 for the first time incurrence of license maintenance fees and director and officer insurance.

Professional fees: We incurred a total of $104,254 in professional fees for an increase of $81,709 or 362%, which is comprised of the following: an increase of $25,126 for external accounting fees as these services were primarily performed by the corporate office in Vancouver British Columbia in 2008; an increase of $38,793 in legal fees due to $22,945 in additional services needed to support operations and $15,848 to support the MSU sponsored research agreement; and a $17,790 increase due to audit and other consulting services.

Director, management and consulting fees: We incurred $41,708 in director, management and consulting expenses versus $750 in the same period last year due to increasing the number of positions on the Board of Directors from three to five beginning in September 2008; increasing the independent Director s fees from $750 to $2,500 on a quarterly basis; and also hiring a Chief Financial Officer, on a contract basis, in February 2009.

Depreciation: Depreciation expense was zero for the period ended March 31, 2009 as all assets were retired prior to January 1, 2009.

Other income and expenses: Other income and expenses decreased due to the conversion of notes payable.

Years Ended December 31, 2008 and 2007

We had no revenues in 2008 and 2007.

Operating expenses were $2,961,820 for the year ended December 31, 2008, an increase of $280,707 or 10.5%, from $2,681,113 during the same period in 2007. The increase was due to the following: a $719,853 or 417.2% increase in research and development costs primarily relating to the effective purchase price of $548,325 of in-process research and development, as well as an increase in costs resulting from the renegotiation of the CRADA in November 2007; and an increase in legal and accounting expenses of $104,529 or 104.6% due to increased activity. These increases were offset by a net decrease of $355,737 or 23.5% in salaries and benefits cost due to the closing of the administration office in Canada and the refocus of our technology efforts resulting in the termination of certain employees, as well as a $191,120 or 35.4% decrease in investor relations expenses. Shareholder and investor relations expenses include a $170,000 charge that was settled by issuing 400,000 common stock shares at an effective price of $0.425 per share.

Interest income decreased 21.8% to $30,831 in 2008 from $39,451 in 2007 resulting from a substantially lower interest rate environment during 2008. The net of interest expense and amortization of both debt discount and deferred financing costs decreased $1,063,039 or 59.2% from $1,796,535 to $733,496 due to the conversion of debt to equity during 2007 with the remainder in 2008.

We recorded a loss on disposal of fixed assets of $3,061 in 2008 as a result of removing the cost and related

accumulated depreciation of equipment that was either no longer in service or deemed obsolete. Substantially all of this equipment was located at the Company s administrative office in Vancouver, British Columbia, Canada, which, effective September 1, 2008, was closed.

Our net loss to common stockholders for 2008 decreased 17.4% to $3,667,547 from $4,438,197 in 2007. On a basic and diluted per share basis, the net loss to common stockholders improved from $0.06 per share net loss in 2007 to $0.04 per share net loss in 2008. As of December 31, 2008, we have an accumulated deficit of $19,321,616. We may incur substantial operating losses in future periods.

Liquidity and Capital Resources

We had cash and cash equivalents of $2,771,661 and $3,084,155 as of March 31, 2009 and December 31, 2008, respectively. We financed our operations from cash on hand during the three month period ended March 31, 2009. Net cash provided by financing activities was $4,530,800 for the year ended December 31, 2008 from a private placement of securities of 10,660,705 units, with each unit consisting of one share of common stock and one common stock warrant.

Net cash flow used in operating activities was $306,875 for the three months ended March 31, 2009, compared to net cash used of $385,979 for the same period in 2008. Net cash flow used in operating activities was $1,984,149 for the year ended December 31, 2008, compared to net cash flow used of $1,895,400 for the same period in 2007. We have financed operations primarily from cash on hand and through private placements of securities, as well as through the issuance of convertible debt. The accompanying financial statements have been prepared assuming we will continue as a going concern. We incurred cumulative losses of $19,767,346 from inception through March 31, 2009. Additionally, we have expended a significant amount of cash in developing our technology and operating as a public company. We expect to continue to incur losses from business operations and we believe our cash and cash equivalents balances, anticipated cash flows from operations, and other external sources of credit will be sufficient to meet our cash requirements through December 2010. The future of the Company after December 2010 will depend in large part on our ability to successfully raise capital from external sources to pay for planned expenditures and to fund operations.

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

Related Party Transactions

For a description of our related party transactions, see the **Transactions with Related Persons, Promoters and Certain Control Persons** section of this prospectus and the related notes to our financial statements appearing at the end of this prospectus.

Off Balance Sheet Arrangements

We have no off-balance sheet arrangements.

Recent Accounting Pronouncements

In February 2008, the Financial Accounting Standards Board (FASB) issued FASB Staff Position (FSP) No. 157-1 (FSP FAS 157-1), which excludes SFAS No. 13, *Accounting for Leases* and certain other accounting pronouncements that address fair value measurements under SFAS 13, from the scope of SFAS 157. In February 2008, the FASB issued FSP No. 157-2 (FSP FAS 157-2), which provides a one-year delayed application of SFAS 157 *Fair Value Measurements* for nonfinancial assets and liabilities, except for items that are recognized or disclosed at fair value in the financial statements on a recurring basis (at least annually). Therefore we were required to adopt SFAS 157 as amended by FSP FAS 157-1 and FSP FAS 157-2 on January 1, 2009, the beginning of our fiscal year, as related to nonfinancial assets and liabilities, which did not have an impact on our consolidated financial statements.

On April 9, 2009, the FASB issued several Staff Positions, as listed below, relating to fair value accounting, impairment of securities, and disclosures. All of these FSPs are effective for interim and annual periods ending after June 15, 2009; entities may early adopt the FSPs for the interim and annual periods ending after March 15, 2009. We did not early adopt any of these FSPs and expect that adoption will not have a material impact on our consolidated financial

statements.

- FSP FAS 157-4, *Determining Fair Value When the Volume and Level of Activity for the Asset or Liability Hav Significantly Decreased and Identifying Transactions That are Not Orderly* ;
- FSP FAS 115-2, *Recognition and Presentation of Other-Than-Temporary Impairments* ; and
- FSP FAS 107-1, *Interim Disclosures about Fair Value of Financial Statements* .

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). SFAS 160 establishes accounting and reporting standards for ownership interests in subsidiaries held by parties other than the parent, changes in a parent s ownership of a noncontrolling interest, calculation and disclosure of the consolidated net income attributable to the parent and the noncontrolling interest, changes in a parent s ownership interest while the parent retains its controlling financial interest and fair value measurement of any retained noncontrolling equity investment. SFAS 160 is effective for financial statements issued for fiscal years beginning after December 15, 2008, and interim periods within those fiscal years. Early adoption is prohibited. We adopted SFAS 160 on January 1, 2009, the beginning of its fiscal year 2009, which had no impact on the consolidated financial statements.

In December 2007, the FASB ratified a consensus opinion reached by the EITF on EITF Issue 07-1, *Accounting for Collaborative Arrangements* (EITF 07-1). The guidance in EITF 07-1 defines collaborative arrangements and establishes presentation and disclosure requirements for transactions within a collaborative arrangement (both with third parties and between participants in the arrangement). The consensus in EITF 07-1 is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2008. The consensus requires retrospective application to all collaborative arrangements existing as of the effective date, unless retrospective application is impracticable. The impracticability evaluation and exception should be performed on an arrangement-by-arrangement basis. We adopted EITF 07-1 effective January 1, 2009, which had no effect on our financial statements.

In June 2008, the FASB issued Staff Position EITF 03-06-1, *Determining Whether Instruments Granted in Share-Based Payment Transactions Are Participating Securities* (FSP EITF 03-06-1). FSP EITF 03-06-1 provides that unvested share-based payment awards that contain nonforfeitable rights to dividends or dividend equivalents (whether paid or unpaid) are participating securities and shall be included in the computation of earnings per share pursuant to the two-class method in SFAS No. 128, Earnings Per Share and is effective for fiscal years beginning after December 15, 2008. Our implementation of FSP EITF 03-06-1 had no impact on our consolidated financial statements.

Description Of Our Business And Properties

This description contains certain forward-looking statements that involve risks and uncertainties. Our actual results could differ materially from the results discussed in the forward-looking statements as a result of certain of the risks set forth herein. We assume no obligation to update any forward-looking statements contained herein.

You should rely only on the information contained in this prospectus or any supplement hereto. We have not authorized anyone to provide you with different information. If anyone provides you with different information you should not rely on it. We are not making an offer to sell the shares in any jurisdiction where the offer is not permitted. You should not assume that the information contained in this prospectus is accurate as of any date other than the date on the front cover of this prospectus regardless of the date of delivery of this prospectus or any supplement hereto, or the sale of the shares. Our business, financial condition, results of operations and prospects may have changed since that date.

We obtained statistical data and certain other industry forecasts used throughout this prospectus from market research, publicly available information and industry publications. Industry publications generally state that they obtain their information from sources that they believe to be reliable, but they do not guarantee the accuracy and completeness of the information. Similarly, while we believe that the statistical and industry data and

forecasts and market research used herein are reliable, we have not independently verified such data. We have not sought the consent of the sources to refer to their reports or articles in this prospectus.

Overview

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 91,996,829 were issued and outstanding as of the date of this Prospectus) 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. We do not have, and may never develop, any commercialized products. We have not generated any revenue from our current operations and do not expect to do so for the foreseeable future. On March 31, 2009, we had an accumulated deficit of $19,767,346.

We are currently focused on the development of HepaMate , a cell-based bioartificial liver system, as a potential treatment for liver failure patients. HepaMate is designed to provide whole liver function in patients with the most severe forms of liver failure by combining the process of removing toxins from the patient s blood (detoxification) with concurrent liver cell therapy. HepaMate has been successfully tested in a clinical Phase I study and was previously known as HepatAssist.

We acquired the HepatAssist technology and related assets from Arbios in October 2008, as part of our ongoing efforts to enhance and strengthen our bioartificial liver development program. The HepatAssist Related Assets from Arbios, include: over 12 patents and patent licenses; miscellaneous scientific equipment; FDA Investigative New Drug application, including orphan drug and fast track designation; phase I/II and phase II/III clinical protocols and clinical data; and standard operating procedures for manufacturing and quality control. The HepatAssist related Assets relate to the bioartificial liver device formerly known as HepatAssist, now referred to as HepaMate .

We are currently working towards optimizing our HepaMate bioartificial liver device for utilization in a new clinical phase III study followed, if warranted, by commercialization upon final regulatory approval.

Prior to our acquisition of the HepatAssist Related Assets from Arbios, we focused our efforts on the research and development of: a porcine stem cell line, and subclones thereof, which we refer to as the PICM-19 cell line for use in a bioartificial liver and in-vitro toxicology testing; and on the development and potential commercialization of a chicken cell line, and subclones thereof, which we refer to as the PBS-1 cell line.

The PICM-19 cell line has been developed for potential use in a bioartificial liver device and in-vitro toxicology platforms, and was exclusively licensed from the USDA, ARS in November 2007. In September 2008, the license was amended in order to expand the field-of-use to allow for use of the PICM-19 cell line as in-vitro infection host systems for viral and protozoan agents such as malaria. We are continuing to evaluate the further optimization of our PICM-19 liver stem cell line.

The PBS-1 cell line was developed for potential use in cell-based vaccine production and was exclusively licensed from MSU in June 2006. In January 2009, we provided written notice to MSU terminating the license agreement effective April 24, 2009.

HepaMate Bioartificial Liver System

We are developing HepaMate for patients with acute or severe liver failure. HepaMate is the most clinically-studied bioartificial liver with more than 50 scientific papers and book chapters published on the technology. Over 200 patients have participated in two clinical trials in the United States and Europe.

HepaMate is an extracorporeal (outside the body), temporary liver support system designed to provide whole liver function to patients with acute or severe liver failure. Unlike conventional technologies which use mechanical methods to perform rudimentary filtration of a patient s blood or partially detoxify blood by using albumin or sorbents, HepaMate combines the process of removing toxins from the patient s blood (detoxification) with concurrent biologic liver cell therapy.

During HepaMate therapy, the patient s plasma is first separated from whole blood, then exposed to the HepaMate bioartificial liver, and finally, returned to the patient. HepaMate is comprised of a blood plasma separation cartridge, a hollow-fiber bioreactor filled with proprietary porcine liver cells, a charcoal column, an oxygenator, and a plasma reservoir. These components are assembled into a patented blood/plasma circulation system, which is placed on our HepaDrive perfusion platform.

HepaMate is designed to provide whole liver function by using liver cells which are expected to remove toxins and produce albumin and other important liver-specific proteins. In order to easily and safely store and distribute our liver cells, we use a patented liver cell cryopreservation process which freezes the cells and allows for their prolonged storage. We believe our patented cryopreservation process provides us with a significant commercial and logistical advantage over technologies reliant upon the delivery of fresh cells which cannot typically be stored for prolonged periods and therefore, have shorter shelf-lifetimes than our cells used in HepaMate .

HepaMate , previously known as 'HepatAssist, has been clinically evaluated in a successful phase I clinical trial. Following these results, a pivotal phase II/III prospective, randomized, controlled trial in 171 patients (with fulminant/subfulminant hepatic failure and primary non-function following a failed liver transplant) was conducted in 11 U.S. and 9 European medical centers. The clinical data was published in 2004 and showed that, based on a retrospective analysis, liver failure patients with fulminant and sub-fulminant hepatic failure who were treated with the bioartificial liver achieved a significant survival advantage when compared against the patient control group receiving standard-of-care treatment without bioartificial liver support.

We believe the inclusion of a subset of 24 patients who had undergone a prior, failed liver transplant negatively impacted the phase II/III trial s outcome since such patients are known to have poor survival outcomes. As a consequence, the pivotal phase II/III trial was unable to achieve its primary 30-day survival endpoint in the overall study population. Based on our retrospective statistical analysis of the clinical trial data, we anticipate, but cannot assure, that a new phase III clinical trial without the inclusion of such failed liver transplant patients may be successful.

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

Due to the pre-revenue, clinical development stage of our business, we expect to incur losses as we continue conducting our ongoing product development program. We will require additional funding to continue our product development program, to conduct a new clinical phase III trial for HepaMate , for operating expenses, to pursue regulatory approvals for our product, 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 currently do not have any arrangements or agreements with any third parties relating to such additional funding. 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 funding will be available in amounts and on terms acceptable to us, if at all. If adequate funds are not available, we may be required to curtail significantly our development program 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. **Please refer to Risk Factors.**

USDA Agricultural Research Service

In November 2007, we entered into an exclusive license agreement with the USDA, ARS for the use of patented PICM-19 liver cell lines in bioartificial liver devices and in-vitro toxicological testing platforms. In September 2008, we amended our license agreement to expand the field-of-use to allow for use of the PICM-19 cells as in-vitro infection host systems for viral and protozoan agents such as malaria. The license agreement gives us exclusive rights to the use of PICM-19 liver cell lines in artificial liver devices and in-vitro toxicological testing platforms patented by two issued and one pending patent. Under the terms of the license agreement, we paid USDA, ARS a one-time license execution fee and are obligated to pay certain maintenance fees, milestone payments and royalties on future sales, if any.

The exclusive license agreement for the PICM-19 liver cell line with the USDA, ARS for the use of patented liver cell lines in artificial liver devices and in-vitro toxicological testing platforms remains in force and effect; the license was recently expanded for the additional use of PICM-19 as in-vitro infection host system for viral and protozoan agents such as malaria. We are continuing to evaluate the further optimization of our PICM-19 liver stem cell line for potential use in a future generation of the HepaMate bioartificial liver system

While we are currently maintaining the license agreement for the PICM-19 liver cell line in effect, contemporaneously with our acquisition of the HepatAssist related assets, we, through our subsidiary, HepaLife Biosystems, Inc. (**HepaBio**), have notified the USDA, ARS that HepaBio has elected to terminate the Cooperative Research and Development Agreement (the CRADA) between us and the USDA, ARS effective November 30, 2008.

Michigan State University

In June 2006, we, through our subsidiary, Phoenix BioSystems, Inc. (**PBS**), entered into an exclusive worldwide license agreement with Michigan State University for the use of the patented PBS-1 chick cell lines for the development of new cell-culture based flu vaccines. In February 2008, PBS amended the license agreement to include use of the PBS-12SF chick cell line for the development of new cell-culture based flu vaccines. The license agreement granted us exclusive rights to five issued patents. Under the terms of the license agreement, we paid MSU a one-time license execution fee and are obligated to pay royalties based on future sales, if any, subject to annual minimum payments. In January 2009, in order to more fully focus our resources on the development of the HepaMate and related technologies, we provided written notice to MSU to terminating the license agreement relating to the PBS-12SF chick cell line effective April 24, 2009.

Our Strategy

Currently, we are focusing our financial resources on the continued development of HepaMate and related technologies. We believe that our bioartificial liver development program, due to our existing pivotal clinical trial data, is one of the most advanced development programs of its kind. We expect to conduct a new phase III clinical trial as soon as possible, subject to the availability of required funding which we estimate will exceed our current working capital.

Although there is no assurance that we will be successful, if we succeed in our efforts to develop our bioartificial liver and in obtaining regulatory approval for commercialization following successful clinical phase III trials of HepaMate , 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
- direct marketing and selling of our products.

Ultimately, our commercial success will depend on our ability and the ability of our partners, 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 as well as the efficacy of competing technologies.

Competition

The biotechnology industry is characterized by intense competition, rapid product development and technological change. A number of companies, research institutions and universities are working on technologies and products that may be similar and/or potentially competitive with our cell-based bioartificial liver. Non cell-based techniques initially developed for other conditions, have been used to treat severe acute liver failure for more than a decade. Until now, no controlled, multicenter, large, randomized, prospective trials have been carried out using non-cell-based systems; therefore, their effect on survival remains unknown.

There can be no assurance that competitors will not succeed in developing alternative clinical therapies that are more effective than any that may ultimately be derived from our development efforts or that would render any such product obsolete and non-competitive.

We face competition from a number of companies, some of which are substantially larger than we are and have access to resources far greater than ours. Some companies enjoy numerous competitive advantages over us, including:

- greater brand 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.

The brief description of the products and technologies being developed or marketed by our competitors listed below have been taken from publicly available documents or reports filed by these companies with the United States Securities and Exchange Commission.

Competitors With Artificial Liver Device Technologies In Advanced Clinical Evaluation

- Arbios Systems, Inc. developing a non-biologic liver filtration device (SEPET) based on selective hemofiltration
- Fresenius AG developed a non-biologic liver filtration system (PROMETHEUS) based on a dialysis principle to remove water-soluble and albumin bound toxins from the blood
- Gambro AB developed a non-biologic liver filtration system (MARS) based on a dialysis principle to remove water-soluble and albumin bound toxins from the blood
- Vital Therapies, Inc. developing a bioartificial liver device (ELAD) that uses a line of human liver cells cultivated from a hepatoblastoma, a type of liver tumor

We believe that in order for us to compete with such companies, both for the acquisition of rights to viable biotechnologies and the financial resources required to ultimately attempt to commercialize such technologies, it is important for us to establish and maintain brand name recognition. Accordingly, we have undertaken a program designed to establish brand name recognition within the investment and scientific communities; we intend to continue to develop and market our brand name pending commercialization.

Our Intended Markets

Liver failure and the Need for an Artificial Liver Device

Each year an estimated two million people die of liver disease. The World Health Organization estimates that over 650 million people worldwide are affected by some form of liver disease, including 30 million Americans. China has the world s largest population of Hepatitis B patients (approx. 120 million) with 500,000 people dying of the liver disease every year.

In the US alone, there are around 500,000 critical episodes of liver problems requiring hospitalization with 80,000 deaths annually. Liver transplantation is currently the only therapy proven to extend survival but the waiting list for liver transplants is extensive and many on the list will not receive an organ due to a dramatic shortage of donors or not being eligible.

In 2007, according to the United Network for Organ Sharing, there were nearly 17,000 individuals on the US waiting list for a liver transplant. Only 30% of those in need were transplanted. The average waiting time was more than 400 days. The same year, about 1,300 people died while waiting for a suitable donor with no medical option for saving their life available. For those patients with fulminant hepatic failure, a severe liver disease with 60-90% mortality, depending on the cause, only 10% received a transplant. Liver transplantation has a relatively high mortality of 30-40% at 5 -8years with 65% of the deaths occurring in the first 6 months. In addition, patients who have undergone transplantation must use lifelong immunosuppressive therapy.

The need for a bioartificial liver device able to remove toxins and improve survival results is more critical today than ever before. 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, liver cancer and other factors, all clearly indicate a strong need for a bioartificial liver device.

Liver Failure Treatment

For 30 years the medical world has tried to create a life-saving bioartificial liver device. Hepatocytes, or liver cells, are the key to a functioning bioartificial liver. However, the liver is a complex organ to functionally replicate: it takes in oxygen and nutrients, and returns metabolic byproducts to the plasma; it must regulate the balance of fluids, electrolytes, and glucoses. The liver synthesizes albumin, globulins, and heparin, and filters out ammonia and toxins.

Currently, the standard treatment for acute liver failure involves supportive care that focuses on bridging patients to either transplantation or spontaneous recovery. Orthotopic liver transplantation is the only current therapy shown to improve patient survival.

Several extracorporeal liver support systems have been used to treat acute liver failure, attempting to bridge patients to either recovery or to transplantation. These include cell-based and non cell-based systems. In the absence of treatment alternatives, non cell-based techniques (eg, high-volume plasma exchange and albumin dialysis) initially developed for other conditions, have been used to treat severe acute liver failure for more than a decade. However, the clinical effect on patient survival in severe acute liver failure was limited.

Extracorporeal liver perfusion using whole human and pig livers rather than cells has been shown to effectively support patients with acute liver failure for several days, but it is impractical for wider use because of limited availability of human livers and lack of quality control and consistency for animal livers. As a result, several extracorporeal cell-based devices were developed. Early phase I studies have been performed using whole blood or plasma perfusion through cartridges (mostly hollow-fiber bioreactors) containing either human hepatoblastoma (tumor) cells or freshly isolated porcine hepatocytes. While such devices appeared to be well tolerated by patients, the studies did not demonstrate a survival advantage over standard care in appropriately controlled settings.

The Market Segments

Assuming the results from our development efforts and anticipated additional clinical trials prove successful, and subject to receiving regulatory approvals, we believe that we will have the potential to address two important clinical needs and market segments:

Acute Liver Failure

Acute liver failure (ALF) can develop from several distinct disease processes that are associated with the rapid loss of liver function, including fulminant hepatic failure (FHF), subfulminant hepatic failure, and primary nonfunction of a transplanted liver. FHF is usually used as a generic term encompassing a range of definitions that are based on the time of onset of hepatic encephalopathy (coma).

FHF is the final common pathway for a variety of liver injuries. In FHF, the need for a liver replacement is urgent because of rapid deterioration in the patient s condition, often associated with irreversible brain damage.

In severe FHF, the mortality rate without liver transplantation approaches up to 90% and individuals diagnosed with FHF are placed at the top of the transplant waiting list (Status I). We anticipate that our HepaMate bioartificial liver may help keep patients alive and maintain their neurological state until their own liver potentially recovers and regenerates to normal function (bridge to recovery), or until a donor liver becomes available for transplantation to the patient (bridge to transplantation).

In FHF patients, we anticipate that our HepaMate bioartificial liver therapy may:

- Allow survival without a transplant (a bridge to liver regeneration)
- Reduce the risk of pre-transplant death
- Help keep liver failure patients alive and neurologically intact before, during and immediately after transplantation
- Improve survival in individuals with drug-induced liver toxicity

- Improve survival with drug-induced liver toxicity

Acute-on-Chronic and Chronic Liver Failure

These patients experience recurrent acute episodes of liver failure which are very difficult and costly to treat. The large majority of these patients do not become eligible for liver transplantation until very late in their disease course, if ever, by which time they may be contraindicated for such an invasive surgical procedure. Thus, we anticipate that the principal objective for use of our HepaMate bioartificial liver will be to bridge these patients to regeneration and recovery of their own liver. Over several years, we anticipate that such patients may be repeatedly treated with our HepaMate bioartificial liver in response to recurring, acute episodes.

For acute-on-chronic and chronic liver failure patients, we anticipate that potential indications for the HepaMate bioartificial liver may include its use in: (a) treatment of acute episodes (or flares) of chronic liver disease, or acute-on-chronic liver failure arising from specific viral hepatitis strains; (b) prevention of acute-on-chronic episodes of liver failure; (c) treatment of acute alcoholic hepatitis; and (d) use in conjunction with multi-drug anti-viral therapy in refractory viral hepatitis patients, where liver injury may impede immune response to conventional administration of antiviral drugs.

Marketing of Commercialized Products

We do not have any commercialized products, nor is there any assurance that we will have any such products; accordingly, we have no sales organization or agreements with third parties regarding the sale and marketing of any products which we may eventually commercialize. To the extent that we may 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 development efforts would be delayed or terminated.

Our ability to achieve profitability is dependent in part on ultimately obtaining regulatory approvals for products, if any, which are derived from our development efforts, and then commercialize either through our own sales force or by entering into sales/marketing agreements for the commercialization of any such products with third parties or strategic partners. 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 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 ourselves, through distribution, co-marketing, co-promotion or sublicensing arrangements with third parties.

Properties

Our current corporate office is located at 60 State Street, Suite 700, Boston, MA 02109. Until August 30, 2008, our administrative office was located at 1628 West First Avenue, Suite 216, Vancouver, BC, Canada, V6J 1G1. A private corporation controlled by Mr. Harmel S. Rayat, a former secretary, treasurer, chief financial officer, chairman, director and majority stockholder, owns the Vancouver, BC premises.

Personnel and Employees

Competition among biotechnology companies for qualified employees is intense, and there can be no assurance we will be able to attract and retain qualified individuals. If we fail to do so, this would have a material, adverse effect on the results of our operations.

We do not maintain any life insurance on the lives of any of our officers and directors. We are highly dependent on the services of our directors and officers, particularly on those of Mr. Frank Menzler. If one or all of our officers or directors die or otherwise become incapacitated, our operations could be interrupted.

At March 31, 2009 we had one full-time employee. We do not have any part-time employees. Our employee is not represented by a labor union or other collective bargaining groups. We consider relations with our employee to be good. To the best of our knowledge, none of our employees, officers or directors are bound by restrictive covenants from prior employers which would preclude them from providing services to the Company. We currently plan to retain and utilize the services of outside consultants for additional research, testing, regulatory, accounting, legal compliance and other services on an as needed basis.

Advisory Board

Our Scientific Advisory Board provides advice regarding specific facets of our ongoing development program. We believe that each member of the advisory board brings distinct scientific, clinical, and business development experience which we can call upon during various phases of our active program progresses, as needed.

We use scientists, physicians and other professionals with expertise related to our technologies to advise us on scientific and medical matters related to our development and clinical activities and technology assessment.

As of the date of this Prospectus, our Advisory Board members were:

Name	**Age**	**Held Position Since**
Stephen Ash, MD	62	July 2007
Achilles Demetriou, MD, Ph.D.	63	March 2009
Joerg Gerlach, MD, Ph.D	46	January 2007
Frederic Gordon, MD	46	February 2009
Michael Ott, MD, Ph.D	46	July 2004
Philip Rosenthal, MD	59	February 2009

Dr. Steven Ash

Stephen R. Ash, MD, FACP is co-founder, Chairman of the Board of Directors and the Director, Research and Development of HemoCleanse since its inception and holds the same positions with Ash Access Technology, Inc., a HemoCleanse spin-off. Since 1975 he has been a practicing physician in Internal Medicine and Nephrology at Clarian-Arnett Health, Indiana. Credited with implementing dialysis in the community, he is Director of Dialysis at Wellbound, Inc. He is also an adjunct Associate Professor of Comparative Medicine at the Department of Veterinary Medicine, Purdue University, and a Clinical Associate Professor at the Indiana University School of Medicine. Dr. Ash is the author of over 30 U.S. patents, over 100 publications and 15 text book chapters in the areas of hemodialysis, peritoneal dialysis, vascular access devices, extracorporeal medical devices, computerized medical charting, and sorbent chemicals. He is Past-President of the American Society for Artificial Internal Organs (ASAIO) and a Founding Member of the American Society for Diagnostic and Interventional Nephrology (ASDIN).

Dr. Achilles Demetriou

Achilles A. Demetriou, MD, PhD, FACS is President of University Hospitals, a Health System based in Cleveland, OH. He is also Professor of Surgery and Vice Dean for Clinical Affairs at the School of Medicine, Case Western Reserve University, Cleveland, OH. Until recently, he was Chairman of the Department of Surgery at Cedars-Sinai Medical Center, a position he has held since 1995. He also served as Director of the Liver Support Unit at Cedars-Sinai. Additionally, he was Professor of Surgery and Vice Chairman of the Department of Surgery at UCLA School of Medicine. He received an MD degree from Hebrew University-Hadassah Medical School, Jerusalem, Israel, under a scholarship from the World Health Organization and a Ph.D. degree in Biochemistry from George Washington University, Washington, DC. Dr. Demetriou s research projects focused on bioartificial liver development, clinical trials of liver support systems, hepatocyte transplantation biology and gene expression abnormalities in liver disease. He holds multiple patents in conjunction with his liver research and is co-inventor and developer of what is now HepaLife s HepaMate bioartificial liver technology. He has written extensively, with 200 publications in peer-reviewed journals to his credit as well as 210 non-peer-reviewed, including a number of chapters on transplantation issues and clinical trials of the bioartificial liver.

Dr. Joerg Gerlach

Dr. Joerg C. Gerlach, MD, Ph.D. directs the Bioreactor Group at the University of Pittsburgh s McGowan Institute for Regenerative Medicine, researching stem cell utilization, hybrid organs and bioartificial liver systems. The McGowan Institute is internationally recognized for regenerative medicine research and the clinical translation of emerging therapies. Dr. Gerlach is an internationally renowned authority in liver function and disease, and cutting-edge artificial liver support systems. With formal European training and extensive European and American experience as a medical doctor and bioengineer, he is a specialist in experimental surgery, cell biology, hybrid organ development, bioengineering, and artificial liver devices. Dr. Gerlach is a patent-holder in the field, and a published liver expert with more than 100 research publications to his credit in peer-reviewed scientific publications and industry journals, alongside 100-plus research abstracts, 15 book contributions.

Dr. Fredric Gordon

Fredric D. Gordon, MD, is a board certified Gastroenterologist, Medical Director of Liver Transplantation, and Director of Hepatology at the Lahey Clinic Medical Center, Massachusetts. Previously he was of Medical Director of Liver Transplantation at the New England Deaconess Hospital, Massachusetts. He completed a gastroenterology fellowship at the Deaconess Hospital, Massachusetts and received additional training in transplant hepatology at the Mayo Clinic, Minnesota. Dr. Gordon has published 130 articles, abstracts and reviews regarding liver transplantation and tertiary treatment of hepatic disease. He serves as a reviewer for a number of prestigious journals including JAMA, the New England Journal of Medicine, and the American Journal of Gastroenterology. His research interests include: liver transplantation, hepatitis C, live donor adult liver transplantation, portal hypertension, and the transjugular intrahepatic portosystemic shunt procedure. He is the principle investigator for approximately 10 ongoing studies at the Lahey Clinic. Dr. Gordon is the national principle investigator for the PROTECT study examining the outcome of hepatitis C therapy after liver transplantation.

Dr. Michael Ott

Michael Ott, MD, Ph.D. is leading the Cell and Gene Therapy group at the MHH Hannover Medical School, Germany, Center of Internal Medicine. He is recognized as one of the world's leading centers for the treatment of liver diseases. As an authority in experimental hepatology and highly-innovative liver cell transplantation procedures for human patients suffering from acute liver failure, Dr. Ott brings unique expertise in the areas of stem cell research as well as gene expression in fetal liver and hepatic progenitor cells. Dr. Ott has also developed techniques for the isolation, characterization and cryopreservation of human hepatocytes for clinical use according to the guidelines of 'good manufacturing practice' and continues to pursue additional clinical research for the management of acute liver failure and the application of extracorporeal liver devices in patients. Over a span of more than 15 years, Dr. Michael Ott's work in basic and clinical research in gastroenterology and hepatology has been extensively published in both abstract and peer-reviewed journals such as the Journal of Biological Chemistry, Hepatology, American Journal of Pathology, Journal of Hepatology, Differentiation, and the International Journal Developmental Biology.

Dr. Philip Rosenthal

Philip Rosenthal, MD, is the Director of Pediatric Hepatology, Medical Director of the Pediatric Liver Transplant Program and a Professor of Pediatrics and Surgery at the University of California, San Francisco (UCSF). He joined the UCSF faculty in 1995, after serving as Professor of Pediatrics at the University of California, Los Angeles (UCLA). Dr. Rosenthal is board certified in Pediatrics and Pediatric Gastroenterology. He received a B.S. degree in Biology from State University of New York at Albany and completed his medical training at Downstate Medical Center and the Albert Einstein Medical Center in New York, after which he completed a fellowship in pediatric gastroenterology at UCSF. Dr. Rosenthal is a prolific author and a recipient of a number of professional honors and awards and is committed to clinical service, research and education. Currently, he is pursuing research on the pharmaceutical treatment of hepatitis B and C, genetics and immunology of biliary atresia, use of bioartificial liver support utilizing porcine hepatocytes for patients with fulminant liver failure, as well as researching the quality of life following liver transplantation in children.

Government Regulation

General

We are involved in a heavily regulated sector, and our ability to remain viable will depend on favorable government decisions at various points by various agencies. From time to time, legislation is introduced in the US Congress that could significantly change the statutory provisions governing our research and development processes as well as the approval, manufacture and marketing of any products derived from such research and development activities. Additionally, healthcare is heavily regulated by the federal government and by state and local governments. The federal laws and regulations affecting healthcare change constantly, thereby increasing the uncertainty and risk associated with any healthcare related venture, including our business. In addition, FDA regulations and guidance are often revised or reinterpreted by the agency in ways that may significantly affect our business and our products, if any. It is impossible to predict whether legislative changes will be enacted or FDA regulations, guidance, or interpretations changed, and what the impact of such changes, if any, may be.

The federal government regulates healthcare through various agencies, including but not limited to the following: (i) the FDA, which administers the Food, Drug, and Cosmetic Act (**FD&C Act**), as well as other relevant laws; (ii) CMS, which administers the Medicare and Medicaid programs; (iii) the Office of Inspector General (OIG) which enforces various laws aimed at curtailing fraudulent or abusive practices, including by way of example, the Anti-Kickback Law, the Anti-Physician Referral Law, commonly referred to as Stark, the Anti-Inducement Law, the Civil Money Penalty Law, and the laws that authorize the OIG to exclude healthcare providers and others from participating in federal healthcare programs; and (iv) the Office of Civil Rights, which administers the privacy aspects of the Health Insurance Portability and Accountability Act of 1996 (**HIPAA**). All of the aforementioned are agencies within United States Department of Health and Human Services (**HHS**).

Healthcare is also provided or regulated, as the case may be, by the Department of Defense through its TriCare program, the Public Health Service within HHS under the Public Health Service Act, the Department of Justice through the Federal False Claims Act and various criminal statutes, and state governments under Medicaid and other state sponsored or funded programs and their internal laws regulating all healthcare activities.

In addition to regulation by the FDA, in the future, we may be subject to general healthcare industry regulations. The healthcare industry is subject to extensive federal, state and local laws and regulations relating to:

- billing for services;
- quality of medical equipment and services;
- confidentiality, maintenance and security issues associated with medical records and individually identifiable health information;
- false claims; and

- the labeling of products.

These laws and regulations are extremely complex and, in some cases, still evolving. In many instances, the industry does not have the benefit of significant regulatory or judicial interpretation of these laws and regulations. If our operations are found to be in violation of any of the federal, state or local laws and regulations that govern our activities, we may be subject to the applicable penalty associated with the violation, including civil and criminal penalties, damages, fines or curtailment of our operations. The risk of being found in violation of these laws and regulations is increased by the fact that many of them have not been fully interpreted by the regulatory authorities or the courts, and their provisions are open to a variety of interpretations. Any action against us for violation of these laws or regulations, even if we successfully defend against it, could cause us to incur significant legal expenses and divert our management s time and attention from the operation of our business.

Federal Food and Drug Administration (FDA) Regulation

We have yet to submit new clinical protocols, manufacturing procedures and products for regulatory approval. If any such products are submitted for approval, they must undergo rigorous 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. A number of products for which FDA approval has been sought 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 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 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 derived from such research. It is possible that the FDA will issue additional regulations further restricting the sale of any proposed products derived from our research and development efforts. Any change in legislation or regulations that govern the review and approval process relating to any of our proposed products or our technologies could make it more difficult and costly to obtain approval, or to produce, market, and distribute such products, if any, derived from our research efforts, even if approved.

Environmental Regulation

Our development and manufacturing program does not generally involve the handling of potentially harmful biological materials or hazardous materials, but it may occasionally do so. 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 financial condition. 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 are 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.

Directors, Executive Officers And Control Persons

The following table and text set forth the names and ages of all directors and executive officers of our company as of March 31, 2009 and as of the date of this Prospectus.

Name	Age	Position	Director/Officer Since
Frank Menzler	40	President, Chief Executive Officer, Chairman and Director	October 2006
Jatinder Bhogal	41	Director	September 2008
Javier Jimenez	43	Director	March 2007
Donna A. Lopolito	50	Chief Financial Officer	February 2009
Roland Schomer	43	Director	June 2008
Joseph Sierchio	58	Director	September 2008

There are no family relationships between or among the directors, executive officers or persons nominated or charged by our company to become directors or executive officers. Executive officers are appointed by, and serve at the discretion of, the Board of Directors.

Recent Management Changes

(1) On September 12, 2008, Mr. Harmel S. Rayat, resigned as our Secretary, Treasurer, Chief Financial Officer, and as a director. Mr. Rayat resigned for personal reasons and not as a result of any disagreement between himself and us or the Board of Directors.

(2) On October 6, 2008, Mr. Frank Fabio, accepted an appointment to serve, on an interim basis, as our Chief Financial Officer. On November 14, 2007, Mr. Frank Fabio resigned as our Interim Chief Financial Officer and Secretary; Mr. Fabio resigned in order to devote more time to his other endeavors and not as a result of any disagreement between himself and us or the Board of Directors.

(3) On March 14, 2007, Mr. Arian Soheili and Mr. Jasvir Kheleh resigned from their positions as directors. Mr. Soheili and Mr. Kheleh resigned for personal reasons and not as a result of any disagreement between himself and us or the Board of Directors.

(4) Effective February 18, 2009, the Board of Directors appointed Ms. Donna A. Lopolito to serve as our Chief Financial Officer.

The following is a brief description of the business experience of each director and executive officer during the past five years and an indication of directorships held by each director in other companies subject to the reporting requirements under the Federal securities laws.

FRANK MENZLER. Mr. Menzler earned a Diplom-Ingenieur (Master s of Science equivalent) in Mechanical and Biomedical Engineering from RWTH Aachen, Germany s largest university of technology in 1996, and his Master s degree in Business Administration (MBA) from Northwestern University s, Kellogg School of Management in 2001. In 1998, Mr. Menzler co-founded Impella Cardiotechnik AG (Germany), helping to raise more than $30 million in grants and venture capital for one of the nation's first 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, Inc. as General Manager, Europe, and then in 2006 was named Director, International Distributors, and was responsible for sales, training and operations. Prior to his appointment as our President, Chief Executive Officer, Director, Mr. Menzler was a member of our Scientific Advisory Board. He was appointed Chairman of HepaLife Technologies, Inc. on June 11, 2008. On November 14, 2008 he was appointed Interim Chief Financial Officer.

JAVIER JIMENEZ. Mr. Jimenez received both Bachelor and Masters degrees in Aeronautical Engineering from Universidad Politecnica de Madrid, Spain in 1991, and his Master s degree in Business Administration (MBA) from Boston University in 1996. In 2000, Mr. Jimenez joined GE Healthcare, a division of General Electric Company. During his tenure at GE Healthcare, Mr. Jimenez held several key finance and management positions, including eBusiness Finance Manager (Latin America), Finance Manager (Brazil), Finance Manager (Latin American Distributors), Manager, Financial Planning & Analysis, Manager, Global PET Operations and Director, Commercial Operations, in the United States and Latin America. In 2004, Mr. Jimenez joined ABIOMED, Inc., the developer of the world s first self-contained artificial heart, as Vice President, Operations. Mr. Jimenez served in numerous positions, most recently, as Vice President, General Manager Europe. In 2008 Mr. Jimenez became Partner in the New England practice of Tatum, LLC. a firm that provides companies with executive services and consulting, helping to maximize the Office of the CFO. Mr. Jimenez joined the Board of Directors on March 14, 2007.

DONNA LOPOLITO. Ms. Lopolito, a Certified Public Accountant, earned a Bachelor of Science degree in Accountancy from Bentley College. She serves both private and public companies, with experience in venture capital and other private financings, initial public offerings, SEC compliance, and public/investor relations. Ms. Lopolito was a Partner with PricewaterhouseCoopers, and has served as Chief Financial Officer for thirteen years, primarily in the life sciences arena. Certain companies where she has served as full-time or interim CFO include Afferent, Biolink, Cambria, Codon Devices, Genocea, Gloucester Pharmaceuticals, Idera, InfraReDx, Interleukin Genetics, Modular Genetics, Organogenesis, Phylogix, Spherics, Xanthus, and ZoomInfo. Ms. Lopolito is an active member and former President of the Massachusetts Society of Certified Public Accountants, an active member and former Council Member of the American Institute of CPAs, and Chairman of the Finance Committee for the Town of Easton. Additionally, she is also a member of the Board of Directors and Audit Committee for Independent Bank Corp (Rockland Trust). Ms. Lopolito is and will continue to be an employee of AccountAbility Outsourcing, Inc.

ROLAND SCHOMER. In 2001, Dr. Schomer joined Actelion Pharmaceuticals Deutschland GmbH, where he built the company's German affiliate as General Manager, Germany. In 2003, Dr. Schomer served as Business Director, Europe, Middle East and Africa, for Actelion Pharmaceuticals Ltd. in Switzerland. In 2004, Dr. Roland Schomer joined Novartis Pharma AG in Basel, Switzerland, where he currently serves as Global Brand Director, Transplantation.

Dr. Schomer joined the Board of Directors on June 18, 2008. Dr. Roland Schomer holds a Medical degree from Medical School of Johannes-Gutenberg University in Mainz, Germany, and subsequently completed his MBA from Northwestern University's Kellogg School of Management.

JATINDER S. BHOGAL. Since December 1993, Mr. Bhogal has worked as a business consultant to emerging growth companies. For over 15 years, Mr. Bhogal has provided early business development guidance and consulting to companies developing healthcare services, medical devices, pharmaceuticals and vaccines, solar-photovoltaics, biofuels, and information technology solutions.

JOSEPH SIERCHIO. Since 1975, Mr. Sierchio has practiced corporate and securities law in New York City, representing and offering counsel to domestic and foreign corporations, investors, entrepreneurs, and public and private companies in the United States, Canada, United Kingdom, Germany, Italy, Switzerland, Australia, and Hong Kong. Mr. Sierchio is admitted in all New York state courts and federal courts in the Eastern, Northern, and Southern Districts of the State of New York as well as the federal Court of Appeals for the Second Circuit. Mr. Sierchio earned his Doctor of

Law degree at Cornell University Law School in 1974, and a Bachelor of Arts degree, with Highest Distinction in Economics, from Rutgers College at Rutgers University, in 1971. Mr. Sierchio is also a member of Sierchio & Company, LLP, which is our legal counsel.

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

During the past five years none of our directors, executive officers, promoters or control persons has 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.

Director Independence

As of the date of this Prospectus, because none of our securities is listed on a national securities exchange or in an inter-dealer quotation system we are not required to have a majority of independent directors. However, after considering all of the relevant facts and circumstances, the Board of Directors has determined that Messrs. Jimenez and Sierchio, as well as Dr. Schomer are independent from our management and qualify as independent directors under the standards of independence set forth in Rule 4200(15) of the NASDAQ Stock Market Rules. This means that, in the judgment of the Board of Directors none of Messrs. Jimenez and Sierchio, as well as Dr. Schomer (1) is an officer or employee (during the prior three fiscal years) of the Company or its subsidiaries or (2) has any direct or indirect relationship with us that would interfere with the exercise of his independent judgment in carrying out the responsibilities of a director.

Code of Ethics

Effective December 31, 2008, our Board of Directors adopted an Amended and Restated Code of Business Conduct and Ethics that applies to all of our employees, officers and directors, including our principal executive officer, principal financial officer and principal accounting officer. We are committed to the highest standards of ethical and professional conduct, and the code provides guidance in how to uphold these standards. The code consists of basic standards of business practice as well as professional and personal conduct.

Directors

Our board of directors currently consists of five members. All of the directors serve for a period of one year until the next annual meeting of stockholders and until their successors are elected and qualified, or until their earlier death, retirement, resignation or removal.

Pursuant to our Bylaws, any vacancy occurring in the board of directors, including a vacancy created by an increase in the number of directors, may be filled by the stockholders or by the affirmative vote of a majority of the remaining directors though less than a quorum of the board of directors. A director elected to fill a vacancy shall hold office only until the next election of directors by the stockholders. If there are no remaining directors, the vacancy shall be filled by the stockholders.

At a meeting of stockholders, any director or the entire board of directors may be removed, with or without cause, provided the notice of the meeting states that one of the purposes of the meeting is the removal of the director. A director may be removed only if the number of votes cast to remove him exceeds the number of votes cast against

removal.

Committees of the Board of Directors

Currently we do not have any committees.

Compensation of Directors

In 2008 and 2007, we incurred $19,343 and $4,900, respectively, in fees to directors. Stock-based compensation expense relating to director stock option awards totaled $12,541 for the year ended December 31, 2008.

Each non employee director receives an initial stock option grant entitling him to purchase up to 50,000 shares of stock at a price per share equal to the closing price of our common stock, as reported on the Over the Counter Bulletin Board on the date of the option grant; the options vest at the rate of 20% per annum in arrears. In addition each non-employee director receives a quarterly cash payment, in arrears, of $2,500. Each director is entitled to reimbursement of out of pocket expenses incurred in connection with his services as a Director of the Company.

We have no other arrangements pursuant to which any our directors were compensated during the years ended December 31, 2008 and 2007 for services as a director.

Executive Compensation

The following table shows, for the three-year period ended December 31, 2008, the cash compensation paid by the Company, as well as certain other compensation paid or accrued 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 2008 that exceeded $100,000.

Summary Compensation Table

Name and Principal Position	Year	Salary	Bonus	Other	Securities Underlying Options Granted	All Other Compensation
Frank Menzler	2008	$ 225,000	$ 0	$ 0	500,000	$ 0
President, CEO	2007	$ 225,000	$ 0	$ 0	2,000,000	$ 0
Chairman, and Director	2006	$ 56,250	$ 0	$ 0	0	$ 0
Harmel S. Rayat (1)	2008	$ 0	$ 0	$ 0	0	$ 0
Former Secretary, Treasurer	2007	$ 0	$ 0	$ 0	0	$ 0
Chief Financial Officer Chairman, and Director	2006	$ 0	$ 0	$ 0	0	$ 0
Arian Soheili (2)	2008	$ 0	$ 0	$ 0	0	$ 0
Former CEO, Secretary,	2007	$ 0	$ 0	$ 1,050	0	$ 0
Treasurer, Director	2006	$ 0	$ 0	$ 3,600	0	$ 0

(1) Resigned as an officer and director on September 12, 2008.
(2) Includes standard Board of Directors fees. Resigned as Secretary, Treasurer and Director on March 14, 2007.

Stock Option Grants in Last Fiscal Year

Shown below is further information regarding stock options awarded during 2008 to the named officers and directors:

Name	Number of Securities Underlying Options	% of Total Options Granted to Employees in 2008	Exercise Price ($/sh)	Expiration Date
Frank Menzler	500,000	71%	$ 0.61	6/11/2018
Harmel Rayat(1)	0	0	n/a	n/a

Javier Jimenez	50,000	7%	0.61	6/11/2018
Roland Schomer	50,000	7%	0.61	6/11/2018
Jatinder Bhogal	50,000	7%	0.26	9/12/2018
Joseph Sierchio	50,000	7%	0.26	9/12/2018

(1) Resigned as an officer and director on September 12, 2008.

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 Options on December 31, 2008		Value of Unexercised In-the-money Options on December 31, 2008	
Name	Exercisable	Unexercisable	Exercisable	Unexercisable
Frank Menzler	100,000	2,400,000	$ 0	$ 730,000
Harmel Rayat (1)	0	0	0	0
Javier Jimenez	0	50,000	0	0
Roland Schomer	0	50,000	0	0
Jatinder Bhogal	0	50,000	0	0
Joseph Sierchio	0	50,000	0	0
Arian Soheili (2)	0	0	0	0
Jasvir Kheleh (3)	0	0	0	0

(1) Resigned as an Officer and Director on September 12, 2008.
(2) Resigned as an Officer and Director on March 14, 2007.
(3) Resigned as a Director on March 14, 2007.

Employment Contracts and Change in Control Arrangements

Except for our agreement with Mr. Menzler, we do not have any employment agreements with any of our officers and directors. On October 1, 2006, the Company and Mr. Menzler entered into an employment agreement whereas Mr. Menzler: (i) agreed to serve as President and Chief Executive Officer, (ii) will receive an annualized base salary of $225,000, (iii) has been granted options to purchase up to 2,250,000 shares of the Company s common stock at an exercise price of $0.73. Subsequently, on January 25, 2007, the Company agreed (simultaneously with the termination of 2,250,000 stock options) to enter a stock option agreement with Mr. Frank Menzler for 2,000,000 common shares at an exercise price of $0.52 per share. On June 11, 2008, the Company agreed to enter a stock option agreement with Mr. Frank Menzler for 500,000 common shares at an exercise price of $0.61 per share.

The Company does not have any change-of-control or severance agreements with any of its executive officers or directors. In the event of the termination of employment of the Named Executive Officers any and all unexercised stock options shall expire and no longer be exercisable after a specified time following the date of the termination.

Stock Option Plans and Other Issuances

We have an active stock option plan that provides shares available for option grants to employees, directors and others. A total of 40,000,000 shares of our common stock have been reserved for award under the stock option plan, of which 35,098,000 were available for future issuance as of December 31, 2008. Options granted under our option plan generally vest over two to five years or as otherwise determined by the Board of Directors, have exercise prices equal to the fair market value of the common stock on the date of grant, and expire no later than ten years after the date of grant.

Stock option activity during the years ended December 31, 2008 and 2007 is summarized as follows:

	Number of options	Weighted average exercise price	Remaining contractual term	Aggregate intrinsic value
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		
Granted	775,000	0.54		
Cancelled	(101,750)	0.43		
Outstanding at December 31, 2008	2,700,000	0.53	8.44	$ -

Exercisable at December 31, 2008	100,000	0.61	9.45
Available for grant at December 31, 2008	35,098,000		

The aggregate intrinsic value in the table above represents the total pretax intrinsic value for all in-the-money options (i.e. the difference between our closing stock price on the last trading day of the year ended December 31, 2008 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, 2008. This amount is based on the fair market value of our stock. Total intrinsic value of options exercised was $nil at December 31, 2008 (2007: $nil).

A summary of our unvested stock options and changes during the years ended December 31, 2008 and 2007 is as follows:

	Number of Options	Weighted Average Grant Date Fair Value
Unvested, December 31, 2006	4,650,000	$ 0.51
Granted	2,026,750	0.43
Cancelled	(4,650,000)	0.51
Unvested, December 31, 2007	2,026,750	0.43
Granted	775,000	0.37
Vested	(100,000)	0.41
Cancelled	(101,750)	0.26
Unvested, December 2008	2,600,000	0.42

The following table details further information regarding stock options outstanding and exercisable at December 31, 2008:

	Outstanding			Exercisable	
Range of Exercise Prices	Number Outstanding at December 31, 2008	Weighted Average Remaining Contractual Life (Years)	Weighted Average Exercise Price	Number Exercisable at December 31, 2008	Weighted Average Exercise Price
$ 0.52	2,000,000	8.07	$ 0.52	-	$ -
0.61	550,000	9.45	0.61	100,000	0.61
0.57	50,000	9.47	0.57	-	-
0.25	100,000	9.70	0.25	-	-
$ 0.53	2,700,000	8.44	$ 0.53	100,000	$ 0.61

During the years ended December 31, 2008 and 2007, we granted 775,000 and 2,026,750 stock options awards. For purposes of determining the stock-based compensation expense for stock option awards granted, the Black-Scholes option-pricing model was used with the following weighted-average assumptions:

	2008 Stock Option Grants	2007 Stock Option Grants
Risk-free interest rate	2.75% - 3.57%	3.41% - 4.85%
Expected term	5 years	4.7 - 5 years
Expected volatility	83.32% - 90.53%	93.95% - 94.73%
Weighted-average volatility	84.2%	94.0%
Dividend per share	$0	$0

The weighted average fair value of options granted during the year ended December 31, 2008 was $0.37 (2007:

$0.43) per share.

During the year ended December 31, 2008, total compensation expense charged to operations was $565,306 (2007: $935,044), with $552,765 classified as salaries and benefits and $12,541 included in director fees. As of December 31, 2008, the Company had $285,286 of total unrecognized compensation cost related to unvested stock options, which is expected to be recognized over a weighted average period of approximately 4.24 years. The fair value of stock options that vested during the year ended December 31, 2008 was $41,000.

We do not repurchase shares to fulfill the requirements of options that are exercised. Further, we issue new shares when options are exercised.

SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The following table sets forth, as of the date of this Prospectus, 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.

The percentages of common stock beneficially owned are reported on the basis of regulations of the Securities and Exchange Commission governing the determination of beneficial ownership of securities. Under the rules of the Securities and Exchange Commission, a person is deemed to be a beneficial owner of a security if that person has or shares voting power, which includes the power to vote or to direct the voting of the security, or investment power, which includes the power to dispose of or to direct the disposition of the security. Except as indicated in the footnotes to this table, each beneficial owner named in the table below has sole voting and sole investment power with respect to all shares beneficially owned.

Person or Group	Number of Shares of Common Stock(1)	Percent
Frank Menzler (1) 60 State Street, Suite 700 Boston, MA 02109	600,000	<1%
Javier Jimenez 60 State Street, Suite 700 Boston, MA 02109	0	0%
Roland Schomer (2) 60 State Street, Suite 700 Boston, MA 02109	7,000	0%
Jatinder S. Bhogal (3) 60 State Street, Suite 700 Boston, MA 02109	3,163,000	3.2%
Joseph Sierchio(4) 60 State Street, Suite 700 Boston, MA 02109	100,000	<1%
1420525 Alberta Ltd.(5) 216-1628 West First Avenue Vancouver, B.C. V6J 1G1 Canada	35,293,880	36%

Directors and Executive Officers as a group (5 persons)	3,870,000	3.9%

1. Represents shares issuable pursuant to options granted on June 11, 2008 and vested on October 1, 2008.

2. Represents 7,000 shares acquired by Mr. Schomer in open market transactions in 2007 prior to his election to our Board of Directors.

3. Represents 3,163,000 shares held by Ranjit Bhogal, Mr. Bhogal s wife.

4. Represents 50,000 shares of our common stock acquired by Mr. Sierchio in the private placement we completed in May 2008 and 50,000 shares issuable pursuant to Series C Warrants at an exercise price of $0.34 per share.

5. This amount includes 30,025,274 shares held by 1420525 Alberta Ltd., a private Alberta company wholly-owned by Mr. Rayat, 2,065,412 shares issuable upon exercise of the Series C Warrants, and 3,203,194 shares held by Tajinder Chohan, Mr. Rayat s wife. In his capacity as the sole stockholder of 1420525 Alberta Ltd. and its President, Mr. Rayat may be deemed to have beneficial ownership of the shares owned by 1420525 Alberta Ltd.

TRANSACTIONS WITH RELATED PERSONS, PROMOTERS AND CERTAIN CONTROL PERSONS

Director and Management Fees: For the year ended December 31, 2008, we incurred $19,343 in board fees for non-employee directors of the Company. In addition, during June and September 2008, we granted stock options to purchase 50,000 shares each for a total of 200,000 shares of common stock to non-employee board members. For the year ended December 31, 2008, we recorded $12,541 as stock compensation expense relating to these stock grants. During the year ended December 31, 2007, we paid management fees of $4,900 to the directors. There is no management or consulting agreements in effect.

Legal Fees: In relation to our May 2008 Private Placement, we settled $21,250 in legal costs by issuing 50,000 Units to our attorney who also serves as a board member. Legal fees expensed for the year ended December 31, 2008 that were paid or were due to this attorney total $111,150.

Notes Payable and Accrued Interest: On May 23, 2008, we reached an agreement with Mr. Harmel Rayat pursuant to which Mr. Rayat (i) converted the entire outstanding principal amount ($877,800) of his loan to the Company into an aggregate of 2,065,412 Units, each Unit consisting of one share of the Company s common stock and one Series C warrant, at a conversion price of $0.425 per Unit and (ii) agreed to accept $150,000 in full payment and satisfaction of the accrued and unpaid interest on the loan in the amount of $249,945.

Rent: Until August 31, 2008, our administrative office was located at 1628 West 1st Avenue, Suite 216, Vancouver, British Columbia, Canada, V6J 1G1. This premise is owned by a private corporation controlled by Mr. Rayat. We paid rent of $26,866 for the year ended December 31, 2008 (2007: $35,740). Effective September 1, 2008, we closed this administrative office, terminating all of our employees at this location. There were no severance arrangements with any of the terminated employees.

Mr. Harmel S. Rayat was an officer and director of the Company until September 12, 2008 and a majority stockholder of the Company until September 9, 2008.

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.

DESCRIPTION OF SECURITIES

General

We are authorized to issue 300,000,000 shares of common stock, $0.001 par value per share, and 1,000,000 shares of preferred stock, $0.10 par value per share.

Common Stock

As of June 1, 2009, there were 91,996,829 shares of common stock outstanding and we had 69 stockholders of record as of June 1, 2009. All of the issued and outstanding shares of common stock on June 1, 2009, were fully paid and non-assessable.

The holders of our common stock are entitled to one vote per share on all matters to be voted on by the stockholders. Subject to preferences that may be applicable to any shares of preferred stock that may be outstanding from time to time, holders of common stock are entitled to receive ratably such dividends as may be declared by the board of directors out of funds legally available therefore. In the event we liquidate, dissolve or wind up, holders of common stock are entitled to share ratably in all assets remaining after payment of liabilities and the liquidation preferences of any outstanding shares of preferred stock. Holders of common stock have no preemptive, conversion, or subscription rights. There are no redemption or sinking fund provisions applicable to the common stock.

Preferred Stock

Under our articles of incorporation, our board of directors has the authority, without further action by our stockholders, to issue up to 1,000,000 shares of preferred stock in one or more series and to fix the rights, preferences, privileges, qualifications and restrictions granted to or imposed upon such preferred stock, including dividend rights, conversion rights, voting rights, rights and terms of redemption, liquidation preference and sinking fund terms, any or all of which may be greater than the rights of the common stock. The issuance of preferred stock could adversely affect the voting power of holders of common stock and reduce the likelihood that such holders will receive dividend payments and payments upon liquidation. Such issuance could have the effect of decreasing the market price of the common stock. The issuance of preferred stock or even the ability to issue preferred stock could also have the effect of delaying, deterring or preventing a change in control. We have no present plans to issue any shares of preferred stock.

Options

As of March 31, 2009 there were 4,902,000 options to purchase shares outstanding (of which 600,000 have vested) under our approved stock option plan and 35,098,000 shares were available for future grants under our stock option plan. Holders of options do not have any of the rights or privileges of our stockholders, including voting rights, prior to exercise of the options. The number of shares of common stock for which these options are exercisable and the exercise price of these options are subject to proportional adjustment for stock splits and similar changes affecting our common stock. We have reserved sufficient shares of authorized common stock to cover the issuance of common stock subject to the options.

Warrants

As of the date of this Prospectus there were:

- 737,000 outstanding share purchase warrants consisting of (1) the GCA Warrants, pursuant to which GCA Strategic has the right to purchase up to 670,000 shares at $1.50 per share and (2) the Placement Warrants, pursuant to which Equinox has the right to purchase up to 67,000 shares at $1.50 per share. The GCA and the Placement Warrants expire on May 11, 2012.
- 12,989,830 Series C Warrants outstanding, pursuant to which the holder has the right to purchase one share of the common stock of the Company at $0.34 per share. The Series C Warrants expire on May 23, 2010.

Registration Rights

As of the date of this Prospectus we do not have any obligation to register any shares for resale by any of our security holders except for the registration rights with respect to (i) the shares registered pursuant to the Registration Statement of which this Prospectus is part and (ii) the GCA and Placement Warrants.

Potential Anti-Takeover Effect of Provisions of Florida Law and Our Bylaws

We are subject to several anti-takeover provisions under Florida law that apply to public corporations organized under Florida law, unless the corporation has elected to opt out of those provisions in its articles of incorporation or bylaws. We have not elected to opt out of those provisions. The FBCA prohibits the voting of shares in a publicly-held Florida corporation that are acquired in a control share acquisition unless the holders of a majority of the corporation s voting shares (exclusive of shares held by officers of the corporation, inside directors, or the acquiring party) approve the granting of voting rights as to the shares acquired in the control share acquisition. A control share acquisition is defined in the FBCA as an acquisition that immediately thereafter entitles the acquiring party to vote in the election of directors within each of the following ranges of voting power: one-fifth or more but less than one-third of such voting power, one-third or more but less than a majority of such voting power, and more than a majority of such voting power. However, an acquisition of a publicly held Florida corporation s shares is not deemed to be a control-share acquisition if it is either (i) approved by such corporation s board of directors, or (ii) made pursuant to a merger agreement to which such Florida corporation is a party. Given that Mr. Harmel Rayat beneficially owns approximately 36% of our issued and outstanding shares, although possible it is not likely that a third party will be able to effect a control share acquisition.

The FBCA also contains an affiliated transaction provision that prohibits a publicly-held Florida corporation from engaging in a broad range of business combinations or other extraordinary corporate transactions with any person who, together with affiliates and associates, beneficially owns more than 10% of the corporation s outstanding voting shares, otherwise referred to as an interested stockholder, unless:

- the transaction is approved by a majority of disinterested directors before the person becomes an interested stockholder,
- the interested stockholder has owned at least 80% of the corporation s outstanding voting shares for at least five years, or
- the transaction is approved by the holders of two-thirds of the corporation s voting shares other than those owned by the interested stockholder.

Our articles of incorporation also permit our board of directors to issue up to 1,000,000 shares of preferred stock, with such rights, preferences, privileges, and restrictions as are fixed by the board of directors. This gives our board of directors the ability to issue shares of preferred stock which could include the right to approve or not approve an acquisition or other transaction that could result in a change in control.

Shares Eligible For Resale

Sales of substantial amounts of our common stock in the public market following this offering could negatively affect the market price of our common stock. Such sales could also impair our future ability to raise capital through the sale of our equity securities.

As of the date of this Prospectus, we have outstanding 91,996,829 shares of our common stock. Of these shares, 61,203,911 shares are "restricted" securities, within the meaning of Rule 144 under the Securities Act, and may not be sold in the absence of registration under the Securities Act, unless an exemption from registration is available, including the exemption provided by Rule 144. Of these 30,025,274 are owned by persons who may be deemed our affiliates.

Rule 144

The SEC has recently adopted amendments to Rule 144 which became effective on February 15, 2008, and will apply to securities acquired both before and after that date. Under these amendments, a person who has beneficially

owned restricted shares of our common stock for at least six months would be entitled to sell their securities provided that (i) such person is not deemed to have been one of our affiliates at the time of, or at any time during the three months preceding, a sale and (ii) we are subject to the Exchange Act periodic reporting requirements for at least three months before the sale.

Sales under Rule 144 by Affiliates

Persons who have beneficially owned restricted shares of our common stock for at least six months but who are our affiliates at the time of, or at any time during the three months preceding, a sale, would be subject to additional restrictions, by which such person would be entitled to sell within any three-month period only a number of securities that does not exceed the greater of either of the following:

1% of the number of shares of common stock then outstanding, which will equal 919,968 shares as of the date of this Prospectus; or

If the common stock is listed on a national securities exchange or on The NASDAQ Stock Market, the average weekly trading volume of the common stock during the four calendar weeks preceding the filing of a notice on Form 144 with respect to the sale.

Sales under Rule 144 by our affiliates are also limited by manner of sale provisions and notice requirements and to the availability of current public information about us.

Sales Under Rule 144 by Non-Affiliates

Under Rule 144, a person who is not deemed to have been one of our affiliates at the time of or at any time during the three months preceding a sale, and who has beneficially owned the restricted ordinary shares proposed to be sold for at least six (6) months, including the holding period of any prior owner other than an affiliate, is entitled to sell their ordinary shares without complying with the manner of sale and volume limitation or notice provisions of Rule 144. We must be current in our public reporting if the non-affiliate is seeking to sell under Rule 144 after holding his ordinary shares between 6 months and one year. After one year, non-affiliates do not have to comply with any other Rule 144 requirements.

Restrictions on the Use of Rule 144 by Shell Companies or Former Shell Companies

Historically, the SEC staff has taken the position that Rule 144 is not available for the resale of securities initially issued by companies that are, or previously were, blank check companies, to their promoters or affiliates despite technical compliance with the requirements of Rule 144. The SEC has codified and expanded this position in the amendments discussed above by prohibiting the use of Rule 144 for resale of securities issued by any shell companies (other than business combination related shell companies) or any issuer that has been at any time previously a shell company. The SEC has provided an important exception to this prohibition, however, if the following conditions are met:

- The issuer of the securities that was formerly a shell company has ceased to be a shell company;
- The issuer of the securities is subject to the reporting requirements of Section 13 or 15(d) of the Exchange Act;
- The issuer of the securities has filed all Exchange Act reports and material required to be filed, as applicable, during the preceding 12 months (or such shorter period that the issuer was required to file such reports and materials), other than Form 8-K reports; and
- At least one year has elapsed from the time that the issuer filed current Form 10 type information with the SEC reflecting its status as an entity that is not a shell company.

As we are not a shell company, our restricted shares will be able to be resold pursuant to Rule 144 as described above after we become subject to the reporting requirements of Section 13 or 15(d) of the Exchange Act.

SELLING STOCKHOLDERS

The following table presents information regarding the Selling Stockholders. The percentage of outstanding shares beneficially owned is based on 91,996,829 shares of common stock issued and outstanding on March 31, 2009. Information with respect to beneficial ownership is based upon information provided to us by the Selling Stockholders. Except as may be otherwise described below, to the best of our knowledge, the named Selling Shareholder beneficially owns and has sole voting and investment authority as to all of the shares set forth opposite his name, none of the Selling Stockholders is known to us to be a registered broker-dealer or an affiliate of a registered broker-dealer. Each of the Selling Stockholders has acquired his, her or its shares solely for investment and not with a view to or for resale or distribution of such securities. Neither of the Selling Stockholders nor any affiliate thereof has held a position or office, or had any other material relationship, with us.

Selling Stockholders (1)	Shares Beneficially Owned Prior to the Offering (1)	Approximate Percentage of Issued and Outstanding Shares Beneficially Owned Prior to the Offering (2)	Shares to be Sold in the Offering(3)	Approximate Percentage of Outstanding Shares Beneficially Owned After Offering(3)
ALPHA CAPITAL ANSTALT(4)	4,705,882	4.9%	2,352,941	2.5%
MICHAEL & BETSY BRAUSER TBE	2,352,942	2.6%	1,176,471	1.3%
BRIO CAPITAL L.P.(5)	235,294	*	235,294	0%
CHASE MORTGAGE, INC.(6)	448,600	*	350,000	*
CHESTNUT RIDGE PARTNERS, LP(7)	1,176,470	1.3%	588,235	*
ROBERT S. COLMAN TRUST UDT3/13/85(8)	1,412,000	1.5%	706,000	*
CRANSHIRE CAPITAL LP(9)	368,820	*	352,941	*
GRQ CONSULTANTS INC. 401K(10)	4,584,941	4.9%	2,352,941	2.5%
IRA FBO JOHN P. O SHEAPERSHING LLC AS CUSTODIAN	1,118,000	1.3%	590,000	*
MELECHDAVID INC.			250,000	
PALLADIUM CAPITAL ADVISORS, LLC(11)	826,000	*	213,713	*
PERISCOPE PARTNERS L.P.(12)	588,236	*	294,118	*
JOSEPH SIERCHIO	100,000	*	50,000	*
WHALEHAVEN CAPITAL FUND LIMITED(13)	2,823,528	3.0%	1,411,764	1.5%
1420525 ALBERTA LTD.(14)	32,090,688	35%	2,065,412	33%
TOTAL REGISTERED			12,989,830	

* Less than 1%.

(1) Except as otherwise noted in the notes to this table, to the best of our knowledge, the Selling Stockholders have not had a short position in our common stock; is not a broker-dealer or an affiliate of a broker-dealer (a broker-dealer may be a record holder); has not held any position or office, or has had any material relationship with us or any of our affiliates within the past three years. The Selling Stockholders and any broker-dealers or agents that are involved in selling these shares are deemed to be underwriters within the meaning of the Securities Act for such sales. An underwriter is a person who has purchased shares from an issuer with a view towards

distributing the shares to the public. In such event, any commissions received by such broker-dealers or agents and any profit on the resale of the shares purchased by them may be considered to be underwriting commissions or discounts under the Securities Act.

(2) Beneficial ownership is calculated based on 91,996,829 shares of common stock issued and outstanding on a fully diluted basis as of March 31, 2009. Shares of common stock beneficially owned and the respective percentages of beneficial ownership of common stock assumes the exercise of all options, warrants and other securities convertible into common stock beneficially owned by such person or entity currently exercisable or exercisable within 60 days of March 31, 2009. Shares issuable pursuant to the exercise of stock options and warrants exercisable within 60 days are deemed outstanding and held by the holder of such options or warrants for computing the percentage of outstanding common stock beneficially owned by such person, but are not deemed outstanding for computing the percentage of outstanding common stock beneficially owned by any other person.

(3) This amount includes the maximum number of shares issuable under the terms of the Series B Warrants. In accordance with the terms of the Series B Warrants a holder shall not have the right to exercise any portion of the Series B Warrant to the extent that after giving effect to such exercise the holder (together with the holder s affiliates, and any other person or entity acting as a group together with the holder or any of the holder s affiliates), would beneficially own in excess of 4.9% of our issued and outstanding stock.

(4) Conrad Akerman is a director of Alpha Capital Anstalt, and in such capacity may be deemed to have voting control and investment discretion over the securities held for the account of this Selling Stockholder.

(5) Shaye Hirsh has voting control and investment discretion over securities. .

(6) Mark Hershowitz, the vice president of Chase Mortgage, Inc. and in such capacity may be deemed to have voting control and investment discretion over securities.

(7) Kenneth Pasternak has voting control and investment discretion over securities.

(8) Robert S. Colman is the trustee of the Robert S. Colman Trust UDT 3/13/85 and in such capacity may be deemed to have voting control and investment discretion over over the securities held for the account of this Selling Stockholder.

(9) Downview Capital, Inc. (Downview) is the general partner of Cranshire Capital, L.P. (Cranshire) and consequently has voting control and investment discretion over securities held by Cranshire. Mitchell P. Kopin (Mr. Kopin), President of Downsview, has voting control over Downsview. As a result of the forgoing, each of Mr. Kopin and Downsview may be deemed to have beneficial ownership (as determined under Section 13(d) of the Securities Exchange Act of 1934, as amended) of the shares of common stock beneficially owned by Cranshire.

(10) Barry Honig has voting control and investment discretion over securities.

(11) Palladium Capital Advisors LLC (Palladium) is a registered broker-dealer. Joel Padowitz is the CEO of Palladium and, in such capacity, may be deemed to have voting and dispositive power over the securities held for the account of this Selling Stockholder. Palladium acted as the placement agent in connection with the May 2008 private placement.

(12) Leon Frankel, the general partner of Periscope Partners L.P., and in such capacity may be deemed to have voting control and investment discretion over the securities held for the account of this Selling Stockholder.

(13) Brian Mazzella and Arthur Jones, respectively the Chief Financial Officer and Director of Whalehaven Capital Fund Ltd. and in such capacity may be deemed to have voting control and investment discretion over the securities held for the account of this Selling Stockholder.

(14) Harmel S. Rayat, the President of 1420525 Alberta Ltd. and in such capacity may be deemed to have voting control and investment discretion over over the securities held for the account of this Selling Stockholder.

The Selling Stockholders may offer and sell, from time to time, any or all of our common stock issued to them. Because the Selling Stockholders may offer all or only some portion of the 12,989,830 shares of common stock registered, no exact number can be given as to the amount or percentage of these shares of common stock that will be held by the Selling Stockholders upon termination of the offering. We can only make estimates and assumptions. For purposes of the above table we have assumed that the Selling Stockholders will sell all of the shares to be registered pursuant to this offering. **Please refer to Plan of Distribution.**

Other than the relationships described in the table and footnotes, none of the Selling Stockholders had or have any material relationship with our company or any of its affiliates within the past three years. None of the Selling Stockholders is a broker-dealer or an affiliate of a broker-dealer.

We may require the Selling Stockholders to suspend the sales of the securities offered by this prospectus upon the occurrence of any event that makes any statement in this prospectus or the related registration statement untrue in any material respect or that requires the changing of statements in these documents in order to make statements in those documents not misleading.

Under Rule 13d-3, a beneficial owner of a security includes any person who, directly or indirectly, through any contract, arrangement, understanding, relationship, or otherwise has or shares: (i) voting power, which includes the power to vote, or to direct the voting of shares; and (ii) investment power, which includes the power to dispose or direct the disposition of shares. Certain shares may be deemed to be beneficially owned by more than one person (if, for example, persons share the power to vote or the power to dispose of the shares). In addition, shares are deemed to be beneficially owned by a person if the person has the right to acquire the shares (for example, upon exercise of an option) within 60 days of the date as of which the information is provided. In computing the percentage ownership of any person, the amount of shares outstanding is deemed to include the amount of shares beneficially owned by such person (and only such person) by reason of these acquisition rights. However, under the terms of the Series C Warrants a holder shall not have the right to exercise any portion of the Series C Warrant to the extent that after giving effect to such exercise the holder (together with the holder s affiliates, and any other person or entity acting as a group together with the holder or any of the holder s affiliates), would beneficially own in excess of 4.9% of our issued and outstanding stock. As a result, the percentage of outstanding shares of any person as shown in this table does not necessarily reflect the person's actual ownership or voting power with respect to the number of shares of common stock actually outstanding on March 31, 2009. **Please refer to Plan of Distribution.**

On May 23, 2008, the date we consummated the Private Placement, the share price of our common stock as reported on the OTCBB was $0.59 per share (the last reported closing price of our common stock on the OTCBB); accordingly, at a per share purchase price of $0.425 per share, reflecting a 28% discount to market.

The following table sets forth the potential profit (based on the discount to market) each Investor could realize, as of such date, based on the discounted purchase price:

Selling Security Holder	Market Price per Share on May 23, 2008	Aggregate Number of Shares Acquired	Combined Market Price of Shares	Aggregate Purchase Price of Shares	Total Possible Discount to Market Price
ALPHA CAPITAL ANSTALT	$0.59	2,352,941	$1,388,235	$999,999	$388,236
MICHAEL & BETSY BRAUSER TBE	$0.59	1,176,471	$694,117	$500,000	$194,117
BRIO CAPITAL L.P.	$0.59	235,294	$138,823	$99,999	$38,824
CHASE MORTGAGE, INC.	$0.59	350,000	$206,500	$148,750	$57,750
CHESTNUT RIDGE PARTNERS, LP	$0.59	588,235	$347,058	$249,999	$97,059
ROBERT S. COLMAN TRUST UDT	$0.59	706,000	$416,540	$300,050	$116,490
CRANSHIRE CAPITAL LP	$0.59	352,941	$208,235	$149,999	$58,236
GRQ CONSULTANTS INC. 401K	$0.59	2,352,941	$1,388,235	$999,999	$388,236
IRA FBO JOHN P. O SHEA PERSHING LLC AS CUSTODIAN	$0.59	590,000	$348,100	$250,750	$97,350
MELECHDAVID INC.	$0.59	250,000	$147,500	$106,250	$41,250
PALLADIUM CAPITAL ADVISORS, LLC	$0.59	213,713	$126,090	$90,820	$35,270
PERISCOPE PARTNERS L.P.	$0.59	294,118	$173,529	$125,000	$48,529
JOSEPH SIERCHIO	$0.59	50,000	$29,500	$21,250	$8,250
WHALEHAVEN CAPITAL FUND LIMITED	$0.59	1,411,764	$832,940	$599,999	$232,941
1420525 ALBERTA LTD.	$0.59	2,065,412	$1,218,593	$877,800	$340,793

The following table shows the total possible profit (based on the discount to market) as of May 23, 2008 to be realized as a result of the exercise of Series C Warrants that were acquired by and are held by the Selling Stockholders or any affiliates of the Selling Stockholders.

	Market Price per Share on May 23, 2008	Exercise price of Series B Warrants On May 23, 2008	Aggregate Shares Underlying Warrants	Market Price of PurchasePrice Shares Underlying Warrants	PurchasePrice of Shares Underlying Warrants	Total Possible Discount to Market Price
Selling Security Holder						
ALPHA CAPITAL ANSTALT	$0.59	$0.55	2,352,941	$1,388,235	$1,294,117	$94,118
MICHAEL & BETSY BRAUSER TBE	$0.59	$0.55	1,176,471	$694,117	$647,059	$47,058
BRIO CAPITAL L.P.	$0.59	$0.55	235,294	$138,823	$129,411	$9,412
CHASE MORTGAGE, INC.	$0.59	$0.55	350,000	$206,500	$192,500	$14,000
CHESTNUT RIDGE PARTNERS, LP	$0.59	$0.55	588,235	$347,058	$323,529	$23,529
ROBERT S. COLMAN TRUST UDT	$0.59	$0.55	706,000	$416,540	$388,300	$28,240
CRANSHIRE CAPITAL LP	$0.59	$0.55	352,941	$208,235	$194,117	$14,118
GRQ CONSULTANTS INC. 401K	$0.59	$0.55	2,352,941	$1,388,235	$1,294,117	$94,118
IRA FBO JOHN P. O SHEA	$0.59	$0.55	590,000	$348,100	$324,500	$23,600
PERSHING LLC AS CUSTODIAN MELECHDAVID INC.	$0.59	$0.55	250,000	$147,500	$137,500	$10,000
PALLADIUM CAPITAL ADVISORS, LLC	$0.59	$0.55	213,713	$126,090	$117,542	$8,548
PERISCOPE PARTNERS L.P.	$0.59	$0.55	294,118	$173,529	$161,764	$11,765
JOSEPH SIERCHIO	$0.59	$0.55	50,000	$29,500	$27,500	$2,000
WHALEHAVEN CAPITAL FUND LIMITED	$0.59	$0.55	1,411,764	$832,940	$776,470	$56,470
1420525 ALBERTA LTD.	$0.59	$0.55	2,065,412	$1,218,593	$1,135,976	$82,617

On September 30, 2008 the exercise price of the Series C Warrant was reset to $0.34 per share in connection with our acquisition of the HepatAssist Related Assets. The closing market price of our stock on that date, as reported on the OTCBB, was $0.20 per share.

PLAN OF DISTRIBUTION

Each Selling Stockholder of the common stock and any of their pledgees, assignees and successors-in-interest may, from time to time, sell any or all of their shares of common stock on the Over the Counter Bulletin Board or any other stock exchange, market or trading facility on which the shares are traded or in private transactions. These sales may be at fixed or negotiated prices. A Selling Stockholder may use any one or more of the following methods when selling shares:

- ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;
- block trades in which the broker-dealer will attempt to sell the shares as agent but may position and resell a portion of the block as principal to facilitate the transaction;
- purchases by a broker-dealer as principal and resale by the broker-dealer for its account;
- an exchange distribution in accordance with the rules of the applicable exchange;
- privately negotiated transactions;
- settlement of short sales entered into after the effective date of the registration statement of which this prospectus is a part;
- broker-dealers may agree with the Selling Stockholders to sell a specified number of such shares at a stipulated price per share;
- through the writing or settlement of options or other hedging transactions, whether through an options exchange or otherwise;
- a combination of any such methods of sale; or
- any other method permitted pursuant to applicable law, including, but not limited to sales pursuant to Rule 144.

Broker-dealers engaged by the Selling Stockholders may arrange for other brokers-dealers to participate in sales. Broker-dealers may receive commissions or discounts from the Selling Stockholders (or, if any broker-dealer acts as agent for the purchaser of shares, from the purchaser) in amounts to be negotiated, but, except as set forth in a supplement to this Prospectus, in the case of an agency transaction not in excess of a customary brokerage commission in compliance with FINRA NASD Rule 2440; and in the case of a principal transaction a markup or markdown in compliance with NASD IM-2440.

In connection with the sale of the common stock or interests therein, the Selling Stockholders may enter into hedging transactions with broker-dealers or other financial institutions, which may in turn engage in short sales of the common stock in the course of hedging the positions they assume. The Selling Stockholders may also sell shares of the common stock short and deliver these securities to close out their short positions, or loan or pledge the common stock to broker-dealers that in turn may sell these securities. The Selling Stockholders may also enter into option or other transactions with broker-dealers or other financial institutions or the creation of one or more derivative securities which require the delivery to such broker-dealer or other financial institution of shares offered by this prospectus, which shares such broker-dealer or other financial institution may resell pursuant to this prospectus (as supplemented or amended to reflect such transaction).

The Selling Stockholders and any broker-dealers or agents that are involved in selling the shares may be deemed to be underwriters within the meaning of the Securities Act in connection with such sales. In such event, any commissions received by such broker-dealers or agents and any profit on the resale of the shares purchased by them may be deemed to be underwriting commissions or discounts under the Securities Act. Each Selling Stockholder has informed us that it does not have any written or oral agreement or understanding, directly or indirectly, with any person to distribute the Common Stock. In no event shall any broker-dealer receive fees, commissions and markups which, in the aggregate, would exceed eight percent (8%).

We are required to pay certain fees and expenses incurred by the Company incident to the registration of the shares. We have agreed to indemnify the Selling Stockholders against certain losses, claims, damages and liabilities, including liabilities under the Securities Act.

Because Selling Stockholders may be deemed to be underwriters within the meaning of the Securities Act, they will be subject to the prospectus delivery requirements of the Securities Act including Rule 172 thereunder. In addition, any securities covered by this prospectus which qualify for sale pursuant to Rule 144 under the Securities Act may be sold under Rule 144 rather than under this prospectus. There is no underwriter or coordinating broker acting in connection with the proposed sale of the resale shares by the Selling Stockholders.

We agreed to keep this prospectus effective until the earlier of (i) the date on which the shares may be resold by the Selling Stockholders without registration and without regard to any volume limitations by reason of Rule 144 or any other rule of similar effect or (ii) all of the shares have been sold pursuant to this prospectus or Rule 144 under the Securities Act or any other rule of similar effect. The resale shares will be sold only through registered or licensed brokers or dealers if required under applicable state securities laws. In addition, in certain states, the resale shares may not be sold unless they have been registered or qualified for sale in the applicable state or an exemption from the registration or qualification requirement is available and is complied with.

Under applicable rules and regulations under the Exchange Act, any person engaged in the distribution of the resale shares may not simultaneously engage in market making activities with respect to the common stock for the applicable restricted period, as defined in Regulation M, prior to the commencement of the distribution. In addition, the Selling Stockholders will be subject to applicable provisions of the Exchange Act and the rules and regulations thereunder, including Regulation M, which may limit the timing of purchases and sales of shares of the common stock by the Selling Stockholders or any other person. We will make copies of this prospectus available to the Selling Stockholders and have informed them of the need to deliver a copy of this prospectus to each purchaser at or prior to the time of the sale (including by compliance with Rule 172 under the Securities Act).

LIMITATION OF LIABILITY AND INDEMNIFICATION OF OFFICERS AND DIRECTORS; INSURANCE

A Florida corporation may indemnify any person who may be a party to any third party proceeding by reason of the fact that such person is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee, or agent of another entity, against liability incurred in connection with such proceeding (including any appeal thereof) if he or she acted in good faith and in a manner he or she reasonably believed to be in, or not opposed to, the best interests of the corporation, and, with respect to any criminal action or proceeding, had no reasonable cause to believe his or her conduct was unlawful.

A Florida corporation is permitted to indemnify any person who may be a party to a derivative action if such person acted in any of the capacities set forth in the preceding paragraph, against expenses and amounts paid in settlement not exceeding, in the judgment of the board of directors, the estimated expenses of litigating the proceeding to conclusion, actually and reasonably incurred in connection with the defense or settlement of such proceeding (including appeals), provided that the person acted under the standards set forth in the preceding paragraph. However, no indemnification shall be made for any claim, issue, or matter for which such person is found to be liable unless, and only to the extent that, the court determines that, despite the adjudication of liability, but in view of all the circumstances of the case, such person is fairly and reasonably entitled to indemnification for such expenses which the court deems proper.

Any indemnification made under the above provisions, unless pursuant to a court s determination, may be made only after a determination that the person to be indemnified has met the standard of conduct described above. This determination is to be made by a majority vote of a quorum consisting of the disinterested directors of the board of directors, by duly selected independent legal counsel, or by a majority vote of the disinterested stockholders. The board of directors also may designate a special committee of disinterested directors to make this determination. Notwithstanding the foregoing, a Florida corporation must indemnify any director, officer, employee or agent of a corporation who has been successful in the defense of any proceeding referred to above.

Generally, a director of a Florida corporation is not personally liable for monetary damages to our company orany other person for any statement, vote, decision, or failure to act, regarding corporate management or policy, unless: (a) the director breached or failed to perform his duties as a director; and (b) the director s breach of, or failure to perform, those duties constitutes (i) a violation of criminal law, unless the director had reasonable cause to believe his conduct was lawful or had no reasonable cause to believe his conduct was unlawful, (ii) a transaction from which the director derived an improper personal benefit, either directly or indirectly, (iii) an approval of an unlawful distribution, (iv) with respect to a proceeding by or in the right of the company to procure a judgment in its favor or by or in the right of a stockholder, conscious disregard for the best interest of the company, or willful misconduct, or (v) with respect to a proceeding by or in the right of someone other than the company or a stockholder, recklessness or an act or omission which was committed in bad faith or with malicious purpose or in a manner exhibiting wanton and willful disregard of human rights, safety, or property. The term recklessness, as used above, means the action, or omission to act, in conscious disregard of a risk: (a) known, or so obvious that it should have been known, to the directors; and (b) known to the director, or so obvious that it should have been known, to be so great as to make it highly probable that harm would follow from such action or omission.

Furthermore, a Florida corporation is authorized to make any other further indemnification or advancement of expenses of any of its directors, officers, employees or agents under any bylaw, agreement, vote of stockholders or disinterested directors, or otherwise, both for actions taken in an official capacity and for actions taken in other capacities while holding such office. However, a corporation cannot indemnify or advance expenses if a judgment or other final adjudication establishes that the actions of the director, officer, employee, or agent were material to the adjudicated cause of action and the director, officer, employee, or agent (a) violated criminal law, unless the director, officer, employee, or agent had reasonable cause to believe his or her conduct was unlawful, (b) derived an improper personal benefit from a transaction, (c) was or is a director in a circumstance where the liability for unlawful distributions applies, or (d) engaged in willful misconduct or conscious disregard for the best interests of the corporation in a proceeding by or in right of the corporation to procure a judgment in its favor or in a proceeding by or in right of a stockholder.

We have adopted provisions in our articles of incorporation and bylaws providing that our directors, officers, employees, and agents shall be indemnified to the fullest extent permitted by Florida law. Additionally, our bylaws permit us to secure insurance on behalf of any officer, director, employee, or other agent for any liability arising out of his or her actions in connection with their services to us, regardless of whether our articles or incorporation or bylaws permit such indemnification. We have not yet obtained any such insurance.

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

There is no pending litigation or proceeding involving any of our directors, officers, employees, or other agents as to which indemnification is being sought, nor are we aware of any pending or threatened litigation that may result in claims for indemnification by any director, officer, employee, or other agent.

DISCLOSURE OF COMMISSION POSITION ON INDEMNIFICATION FOR SECURITIES ACT LIABILITIES

Our directors and officers are indemnified by our bylaws against amounts actually and necessarily incurred by them in connection with the defense of any action, suit or proceeding in which they are a party by reason of being or having been our directors or officers or of our subsidiaries. Our articles of incorporation provide that none of our directors or officers shall be personally liable for damages for breach of any fiduciary duty as a director or officer involving any act or omission of any such director or officer. Insofar as indemnification for liabilities arising under the Securities Act may be permitted to such directors, officers and controlling persons pursuant to the foregoing provisions, or otherwise, we have been advised that in the opinion of the U.S. Securities & Exchange Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable.

In the event that a claim for indemnification against such liabilities, other than the payment by us of expenses incurred or paid by such director, officer or controlling person in the successful defense of any action, suit or proceeding,is asserted by such director, officer or controlling person in connection with the securities being registered, we will, unless in the opinion of counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

LEGAL MATTERS

The validity of the common stock offered hereby will be passed upon for by Sierchio & Company, LLP, New York, New York.

CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None.

EXPERTS

Peterson Sullivan LLP, an independent registered public accounting firm, audited our balance sheets as of December 31, 2008 and 2007, and the statements of operations, stockholders' equity (deficit) and cash flows for the years ended December 31, 2008, and 2007 and for the period from October 21, 1997 (date of inception) to December 31, 2008. These financial statements are included in this prospectus in reliance on their report, given their authority as experts in accounting and auditing.

ADDITIONAL INFORMATION

We currently file quarterly and annual reports with the U.S. Securities & Exchange Commission on forms 8-K, 10-Q and 10-K. We have filed with the U.S. Securities & Exchange Commission under the Securities Act a registration statement on Form S-1 with respect to the shares being offered in this offering. This prospectus does not contain all of the information set forth in the registration statement, certain items of which are omitted in accordance with the rules and regulations of the U.S. Securities & Exchange Commission. The omitted information may be inspected and copied at the Public Reference Room maintained by the U.S. Securities & Exchange Commission at 100 F Street, N.E., Washington, D.C. 20549. You can obtain information about operation of the Public Reference Room by calling the U.S. Securities & Exchange Commission at 1-800-SEC-0330. The U.S. Securities & Exchange Commission also maintains an Internet site that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the U.S. Securities & Exchange Commission at http://www.sec.gov. Copies of such material can be obtained from the public reference section of the U.S. Securities & Exchange Commission at prescribed rates. Statements contained in this prospectus as to the contents of any contract or other document filed as an exhibit to the registration statement are not necessarily complete and in each instance reference is made to the copy of the document filed as an exhibit to the registration statement, each statement made in this prospectus relating to such documents being qualified in all respects by such reference.

For further information with respect to us and the securities being offered hereby, reference is hereby made to the registration statement, including the exhibits thereto and the financial statements, notes, and schedules filed as a part thereof.

INDEX TO

Financial Statements

HEPALIFE TECHNOLOGIES, INC.
(A Development Stage Company)

CONSOLIDATED BALANCE SHEETS
March 31, 2009 and December 31, 2008

(Expressed in U.S. Dollars)	(unaudited) March 31, 2009	December 31, 2008
ASSETS		
Current assets		
Cash and cash equivalents	$ 2,777,661	$ 3,084,155
Prepaid expenses (Note 6)	62,398	98,716
Total current assets	2,840,059	3,182,871
Long-term deposits	5,000	-
Total assets	$ 2,845,059	$ 3,182,871
LIABILITIES		
Current liabilities		
Accounts payable and accrued liabilities	$ 69,807	$ 105,250
Contract commitment payable (Note 4)	200,000	-
Discount on contract commitment payable	(10,524)	-
Total current liabilities	259,283	105,250
Contract commitment payable (Note 4)		200,000
Discount on contract commitment payable		(12,873)
Total liabilities	259,283	292,377
STOCKHOLDERS' EQUITY		
Stockholders' equity (Note 8)		
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: 91,996,829 (2008: 91,996,829)	91,998	91,998
Additional paid-in capital	22,261,124	22,120,493
Accumulated other comprehensive income	-	(381)
Loss accumulated during the development stage	(19,767,346)	(19,321,616)
Total stockholders' equity	2,585,776	2,890,494
Total liabilities and stockholders' equity	$ 2,845,059	$ 3,182,871

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

HEPALIFE TECHNOLOGIES, INC.
(A Development Stage Company)

CONSOLIDATED STATEMENTS OF OPERATIONS
For the three month periods ended March 31, 2009 and 2008
and from inception (October 21, 1997) to March 31, 2009
(unaudited)

(Expressed in U.S. Dollars)	Three Months Ended March 31, 2009	Three Months Ended March 31, 2008	From inception (October 21, 1997) to March 31, 2009
Revenue	$ -	$ -	$ -
Expenses			
Salary and benefits	200,048	332,083	5,834,803
Research and development	51,075	127,463	1,964,749
Shareholder and investor relations	2,280	3,955	4,156,994
Administrative and general	53,966	47,594	1,313,306
Professional fees- accounting and legal	104,254	22,545	816,197
Director, management and consulting fees (Note 5)	41,708	750	1,064,750
Depreciation	-	2,607	35,410
Stock offering costs	-	-	1,926,713
	453,331	536,997	17,112,922
Operating Loss	(453,331)	(536,997)	(17,112,922)
Other income and (expenses)			
Interest on promissory note (Note 7)	-	(22,930)	(355,112)
Interest, bank charges and foreign exchange loss	(590)	(9,177)	(36,397)
Interest income	10,540	2,897	130,659
Loss on disposal of fixed assets	-	-	(3,061)
Amortization of discount on notes (Note 7)	(2,349)	(468,343)	(2,096,998)
Amortization of deferred financing costs (Note 7)	-	(210,728)	(293,515)
	7,601	(708,281)	(2,654,424)
Net loss available to common stockholders	$ (445,730)	$ (1,245,278)	$ (19,767,346)
Loss per share - basic and diluted	$ (0.00)	$ (0.02)	
Weighted average number of common shares outstanding - basic and diluted	91,996,829	78,370,004	

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

HEPALIFE TECHNOLOGIES, INC.
(A Development Stage Company)

CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY (DEFICIT)
from inception (October 21, 1997) to March 31, 2009
(unaudited)

(Expressed in U.S. Dollars)	Common Stock Shares	Common Stock Amount	Additional paid-in capital	Accumulated other comprehensive income	Loss accumulated during development stage	Comprehensive income (loss)	Total stockholders' equity (deficit)
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 $0.015per 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 $0.05per 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)	-	-	-	-	(375,472)	(375,472)	(375,472)

Loss, year ended December 31, 2002							
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	1,622,000	1,622	1,339,998	-	-	-	1,341,620

between $0.07 to $2.11 per share							
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	40,000	40	84,360	-	-	-	84,400

to exercise of stock options in October 2005 at $2.11 per share							
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 2005pursuant to share purchase agreement	20,000	20	37,580	-	-	-	37,600
Restricted common stock issued in July 2005pursuant 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)
	374,753	375	505,542	-	-	-	505,917

Restricted common stock issued in January 2006pursuant to share purchase agreement							
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
Stock based compensation expenses	-	-	935,044	-	-	-	935,044
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
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)
Common stock converted from convertible promissory notes in January 2008	2,342,415	2,343	752,657	-	-	-	755,000
Common stock converted from notes in June 2008	2,065,412	2,065	975,680	-	-	-	977,745
Common stock and warrants issued for cash, at $0.425 per share in May 2008 and in payment of placement and legal fees	10,924,418	10,925	4,519,875	-	-	-	4,530,800
Common stock issued for services received in 2008	400,000	400	169,600	-	-	-	170,000
Warrants granted for purchase of in-process research and development in October 2008	-	-	98,325	-	-	-	98,325
	-	-	565,306	-	-	-	565,306

Stock based compensation expenses							
Comprehensive income (loss)							
Foreign currency translation adjustment	-	-		3,391	-	3,391	3,391
Loss, year ended December 31, 2008	-	-	-	-	(3,667,547)	(3,667,547)	(3,667,547)
Total comprehensive income						(3,664,156)	
Balance, December 31, 2008	91,996,829	91,998	22,120,493	(381)	(19,321,616)		2,890,494
Stock based compensation expenses	-	-	140,631	-	-	-	140,631
Comprehensive income (loss)							
Foreign currency translation adjustment	-	-		381	-	381	381
Loss, for the three months ended March 31, 2009	-	-	-	-	(445,730)	(445,730)	(445,730)
Total comprehensive income						$ (4,109,505)	
Balance, March 31, 2009	91,996,829	$ 91,998	$ 22,261,124	$ -	$ (19,767,346)		$ 2,585,776

(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 three month periods ended March 31, 2009 and 2008
and from inception (October 21, 1997) to March 31, 2009
(unaudited)

(Expressed in U.S. Dollars)	Three Months Ended March 31, 2009	March 31, 2008	From inception (October 21, 1997) to March 31, 2009
Cash flows from operating activities:			
Net Loss	$ (445,730)	$ (1,245,278)	$ (19,767,346)
Adjustments to reconcile net loss to net cash from operating activities:			
Depreciation	-	2,607	35,410
Amortization of license fees	18,750	-	106,250
Services paid by issuance of common stock	-	-	1,031,100
Stock offering costs paid by issuance of common stock	-	-	1,926,713
In-process research and development partially purchased by issuance of common stock warrants and a contract commitment payable, net of discount	-	-	283,903
Stock based compensation expenses	140,631	150,748	4,248,283
Amortization of discount on notes	2,349	468,343	2,096,998
Amortization of deferred financing costs	-	210,728	293,515
Loss on disposal of assets	-	-	3,061
Change in assets and liabilities:			
Decrease (increase) in prepaid expenses and deposits	12,568	1,272	(98,650)
Increase (decrease) in accounts payable	(35,443)	2,671	69,807
Increase in accounts payable - related party		22,930	99,946
Net cash used in operating activities	(306,875)	(385,979)	(9,671,010)
Cash flows from investing activities:			
Purchase of property and equipment	-	-	(38,471)
Purchase of license fees	-	-	(75,000)
Net cash used in investing activities	-	-	(113,471)
Cash flows from financing activities:			
Proceeds from issuance of common stock and warrants, net	-	-	9,787,867
Proceeds from issuance of convertible notes	-	-	2,125,000
Net proceeds from promissory notes	-	-	877,800
Increase in deferred financing cost	-	-	(228,525)
Net cash provided by financing activities	-	-	12,562,142
Increase (decrease) in cash and cash equivalents	(306,875)	(385,979)	2,777,661
Effect of foreign exchange rate	381	6,015	-
Cash and cash equivalents, beginning of period	3,084,155	534,113	-
Cash and cash equivalents, end of period	$ 2,777,661	$ 154,149	$ 2,777,661
Supplemental disclosure of cash flow information:			
Interest paid in cash	$ -	$ 106	$ 247,575
Income tax paid in cash	$ -	$ -	$ -
Non-cash Investing and Financing Activities:			

Common stock and warrants issued for professional services	$ -	$ -	$ 1,143,078
Issuance of common stock as stock offering costs	$ -	$ -	$ 1,926,713
Issuance of warrants for deferred financing costs	$ -	$ -	$ 64,990
Conversion of note payable and related interest to equity	$ -	$ -	$ 977,745
Conversion of debt to equity	$ -	$ 755,000	$ 2,500,000

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

HEPALIFE TECHNOLOGIES, INC.
(A Development Stage Company)

NOTES TO INTERIM UNAUDITED CONSOLIDATED FINANCIAL STATEMENTS
MARCH 31, 2009
(Expressed in U.S. Dollars)

NOTE 1 - BASIS OF PRESENTATION, GOING CONCERN UNCERTAINITIES

We are a development stage biotechnology company focusing on the development of a cell-based bioartificial liver system.

We have incurred net operating losses since inception. We face all the risks common to companies in early stages of development, including undercapitalization and uncertainty of funding sources, high initial expenditure levels, uncertain revenue streams, and difficulties in managing growth. We expect to continue to incur losses from business operations and we believe our cash and cash equivalents balances, anticipated cash flows from operations, and other external sources of credit will be sufficient to meet our cash requirements through March 2010. Our prospects after March 2010 will depend in large part on our ability to successfully raise capital from external sources to pay for planned expenditures and to fund operations.

Principles of Consolidation

Included in our consolidated financial statements are our accounts and the accounts of our subsidiaries, Phoenix BioSystems, Inc., HepaLife Biosystems, Inc., and HepaLife Technologies Ltd. Phoenix BioSystems, Inc. was incorporated under the laws of the State of Nevada on June 6, 2006 for the purpose of operations and accounting associated with the our research and development efforts with the patented PBS-1 cell line. HepaLife Biosystems, Inc. was incorporated in State of Nevada on April 17, 2007 for the purpose of categorizing operations and accounting associated with the our research and development efforts with the patented PICM-19 cell line, artificial liver technologies, and in vitro toxicology testing systems. HepaLife Technologies Ltd. was incorporated on April 11, 2007 in British Columbia, Canada, for the purpose of streamlining business operations in Canada. We ceased to conduct business in Canada on August 31, 2008 and closed this office. As a result, we dissolved HepaLife Technologies, Ltd. All significant intercompany transactions and accounts have been eliminated in consolidation.

NOTE 2 STATEMENT OF INFORMATION FURNISHED

The accompanying unaudited consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America for interim financial information and with the instructions to Form 10-Q and Article 10 of Regulation S-X. Accordingly, they do not include all of the information and footnotes required by accounting principles generally accepted in the United States of America for complete financial statements. In the opinion of management, all adjustments (which are of a normal recurring nature) considered necessary for a fair presentation of the financial statements have been included. Operating results for the quarter ended March 31, 2009 are not necessarily indicative of the results that may be expected for the year ended December 31, 2009 or any other interim period. For further information, refer to the consolidated financial statements and notes thereto included in our 2008 Annual Report on Form 10-K for the year ended December 31, 2008 filed with the Securities and Exchange Commission.

Fair Value

The carrying amount reported on the balance sheet for assets and liabilities approximates those assets or liabilities fair values (representing the amount that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants). In particular, cash and accounts payable, accrued liabilities and notes payable approximate their fair value because of the short-term nature of these instruments. We place our cash with high credit quality financial institutions.

Recent and Adopted Accounting Pronouncements

In February 2008, the Financial Accounting Standards Board (FASB) issued FASB Staff Position (FSP) No. 157-1 (FSP FAS 157-1), which excludes SFAS No. 13, *Accounting for Leases* and certain other accounting pronouncements that address fair value measurements under SFAS 13, from the scope of SFAS 157. In February 2008, the FASB issued FSP No. 157-2 (FSP FAS 157-2), which provides a one-year delayed application of SFAS 157 *Fair Value Measurements* for nonfinancial assets and liabilities, except for items that are recognized or disclosed at fair value in the financial statements on a recurring

basis (at least annually). Therefore we were required to adopt SFAS 157 as amended by FSP FAS 157-1 and FSP FAS 157-2 on January 1, 2009, the beginning of our fiscal year, as related to nonfinancial assets and liabilities, which did not have an impact on the our consolidated financial statements.

On April 9, 2009, the FASB issued several Staff Positions, as listed below, relating to fair value accounting, impairment of securities, and disclosures. All of these FSPs are effective for interim and annual periods ending after June 15, 2009; entities may early adopt the FSPs for the interim and annual periods ending after March 15, 2009. We did not early adopt any of these FSPs and expect that adoption will not have a material impact on our consolidated financial statements.

- FSP FAS 157-4, *Determining Fair Value When the Volume and Level of Activity for the Asset or Liability Have Significantly Decreased and Identifying Transactions That are Not Orderly* ;
- FSP FAS 115-2, *Recognition and Presentation of Other-Than-Temporary Impairments* ; and
- FSP FAS 107-1, *Interim Disclosures about Fair Value of Financial Statements* .

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). SFAS 160 establishes accounting and reporting standards for ownership interests in subsidiaries held by parties other than the parent, changes in a parent s ownership of a noncontrolling interest, calculation and disclosure of the consolidated net income attributable to the parent and the noncontrolling interest, changes in a parent s ownership interest while the parent retains its controlling financial interest and fair value measurement of any retained noncontrolling equity investment. SFAS 160 is effective for financial statements issued for fiscal years beginning after December 15, 2008, and interim periods within those fiscal years. Early adoption is prohibited. We adopted SFAS 160 on January 1, 2009, the beginning of our fiscal year 2009, which had no impact on the consolidated financial statements.

In December 2007, the FASB ratified a consensus opinion reached by the EITF on EITF Issue 07-1, *Accounting for Collaborative Arrangements* (EITF 07-1). The guidance in EITF 07-1 defines collaborative arrangements and establishes presentation and disclosure requirements for transactions within a collaborative arrangement (both with third parties and between participants in the arrangement). The consensus in EITF 07-1 is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2008. The consensus requires retrospective application to all collaborative arrangements existing as of the effective date, unless retrospective application is impracticable. The impracticability evaluation and exception should be performed on an arrangement-by-arrangement basis. We adopted EITF 07-1 effective January 1, 2009, which had no effect on our financial statements.

In June 2008, the FASB issued Staff Position EITF 03-06-1, *Determining Whether Instruments Granted in Share-Based Payment Transactions Are Participating Securities* (FSP EITF 03-06-1). FSP EITF 03-06-1 provides that unvested share-based payment awards that contain nonforfeitable rights to dividends or dividend equivalents (whether paid or unpaid) are participating securities and shall be included in the computation of earnings per share pursuant to the two-class method in SFAS No. 128, Earnings Per Share and is effective for fiscal years beginning after December 15, 2008. Our implementation of FSP EITF 03-06-1 had no impact on our consolidated financial statements.

NOTE 3 - LOSS PER SHARE

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

	Three Months Ended March 31,	
	2009	2008
Numerator - net loss available to common stockholders	$ (445,730)	$ (1,245,278)
Denominator - weighted average number of common shares outstanding	91,996,829	78,370,004
Basic and diluted loss per common share	$ (0.00)	$ (0.02)

NOTE 4 - PURCHASED IN-PROCESS RESEARCH AND DEVELOPMENT

We purchased certain assets from Arbios Systems, Inc. (Arbios) relating to the pig cell based liver device technology known as HepatAssist in October 2008 in order to enhance and strengthen its PICM-19 porcine liver cell line based bioartificial liver. The Company re-trademarked the device as HepaMate. The effective purchase price of $548,325 was charged to operations in 2008 as purchased in-process research and development expense. The purchase price consisted of cash for $250,000, a contract commitment of $200,000 (the Deferred Cash Purchase Price), and 750,000 Series D warrants valued at $98,325 using the Black-Scholes pricing model (refer to Note 8).

According to the purchase agreement, the Deferred Cash Purchase Price was due and payable on the earlier of (i) the date on which we consummate one or more debt or equity financings in which the gross proceeds received in the aggregate equal or exceed $4,000,000, or (ii) the eighteen month anniversary of the closing date. The deferred payable does not bear interest. In accordance with Accounting Principles Board (APB) Opinion No. 21 *Interest on Receivables and Payables*, we discounted the payable with an effective annual interest rate of 5% and the associated amortization of the discount is to be charged to interest expense over the 18 month expected life of the note. As of December 31, 2008, the contract commitment payable of $200,000, net of unamortized discount of $12,873 was recorded in noncurrent liabilities.

Subsequent to March 31, 2009, we entered into a Repurchase Agreement with Arbios whereby we reacquired the Series D Warrants on April 22, 2009 in consideration of the accelerated payment of the Deferred Cash Purchase Price which was paid on April 22, 2009. In light of the accelerated payment, the Deferred Cash Purchase Price, net of unamortized discount of $10,524, was classified as a current liability at March 31, 2009.

For the three months ended March 31, 2009, $2,349 of discount amortization was charged to interest expense.

NOTE 5 - RELATED PARTY TRANSACTIONS

Director and Management Fees: For the three months ended March 31, 2009, we incurred $10,000 in board fees for our non-employee directors. In addition, we recorded $6,508 as stock compensation expense relating to stock options grants to directors during 2008 (refer to Note 9). There are no management or consulting agreements in effect.

Legal Fees: During the three months ended March 31, 2009, we incurred $35,988 for legal services rendered by a law firm of which a non-employee director is a member.

NOTE 6 - COOPERATIVE AND LICENSE AGREEMENTS

USDA, ARS CRADA: In November 2002, we entered into a Cooperative Research and Development Agreement (CRADA) with the U.S. Department of Agriculture (USDA), Agricultural Research Service (ARS) pertaining to the continued development and use of patented liver cell lines in artificial liver devices and in-vitro toxicological testing platforms. This agreement was amended several times, with a final agreement termination date of November 2009. We terminated the CRADA effective November 30, 2008.

USDA, ARS License: On November 20, 2007, we exercised our license right under the CRADA by entering into an exclusive license agreement with the USDA, ARS for existing and future patents related to the PICM-19 hepatocyte cell lines. Under this license agreement, we incurred a license execution fee of $150,000 with $75,000 paid in December 2007 and $75,000 paid in November 2008. In addition to these payments during the first two years of the contract, we are responsible for annual license maintenance fees commencing in year 2010 for the term of the license, which is until the expiration of the last to expire licensed patents unless terminated earlier. These annual fees are capitalized to prepaid license costs when incurred and amortized to operating expense over the course of each year. The license agreement also requires certain milestone payments, if and when milestones are reached, as well as royalties on net sales of resulting licensed products, if any.

MSU License: On June 15, 2006, we entered into an exclusive worldwide license agreement with Michigan State University (MSU) through our subsidiary, Phoenix BioSystems, Inc. (PBS), 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.

In January 2009, we provided notice to MSU to terminate the license agreement effective April 24, 2009. For the three months ended March 31, 2009, we incurred $30,848 in expenses related to this contract, a $15,000 milestone payment charged to research and development and $15,848 in legal fees. Total costs incurred to date relating to this license agreement are $104,201.

The license agreement provided us with exclusive rights to certain issued patents, for which we paid an initial fee of $1,000 upon execution of the agreement in 2006. The agreement mandated royalties on net sales of resulting licensed products, if any, with minimum payments due commencing in year 2010 for the term of the license, which is 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.

Under the license agreement we also were required to make certain milestone payments to MSU, if and when achieved.

As part of the license agreement, on October 2, 2006 PBS issued 17,650 common shares at par value, or 15% of the total issued and outstanding shares of PBS, to an individual who is also a member of our scientific advisory board. After issuance of the shares, we hold 85% of the total issued and outstanding shares of PBS. We recorded the fair value of the 15% issued shares at a nominal value. As PBS had no assets or liabilities, no value was allocated to the minority interest.

NOTE 7 - CONVERTIBLE PROMISSORY NOTE

On May 11, 2007, we entered into a Securities Purchase Agreement with GCA Strategic Investment Limited for the sale of a convertible note with a $2,500,000 aggregate principal amount and maturity date of May 11, 2009. The convertible note was issued on May 11, 2007 at a purchase price of $2,125,000 (eighty-five per cent of the principal amount). The convertible note does not bear interest, except upon an event of default at which time interest would 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 our common stock. In connection therewith, we also issued to the purchaser warrants to purchase up to an aggregate of 670,000 shares of our common stock at a price of $1.50 per share (the warrants) for a term of five years.

In connection with this transaction, we also agreed to pay the purchaser s adviser out of pocket fees of $15,000; and pay to Equinox Securities, Inc., a NASD (now FINRA) registered broker/dealer, pursuant to an agreement dated April 19, 2007, 10% of the amount funded plus a warrant to purchase a number of shares of our common stock equal to 10% of the number of shares subject to the warrants issued in connection with the convertible at the same exercise price of $1.50 per share, or 67,000 shares, in consideration of its efforts in securing, on our behalf, the financing with the purchaser.

The convertible note contained a prepayment option and redemption feature under certain conditions and circumstances. A registration statement relating to the resale of the common shares issuable under the conversion of the convertible note and exercise of the warrants was declared effective on July 5, 2007.

Conversion of the Convertible Note

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

In 2007, $1,745,000 of the convertible note was converted into 2,604,721 shares of common stock. In January 2008, the remaining $755,000 of the convertible note was converted into 2,342,415 shares of common stock. For the year ended December 31, 2008, the remaining discount of $468,343 (2007: $1,624,756) and issuance costs of $210,728 (2007: $82,787) relating to the convertible note were charged to operations.

Bifurcation of the Warrants from the Convertible Note and the Intrinsic Value of the Beneficial Conversion Feature of the Note.

The convertible note contained a conversion feature that allowed 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 our common shares for the five trading days prior to the conversion date. As the host contract did not embody a claim to the residual interest in us, the economic characteristics and risks of the host contract was considered that of a debt instrument and classified as a liability.

We determined that the embedded conversion option did not meet the definition of a derivative as described under SFAS No. 133 *Accounting for Derivative Instruments and Hedging Activities* paragraph 12(a) and 12(c) as the conversion option results in a fixed monetary benefit to the holder known at the measurement date.

The convertible note was a complex hybrid instrument bearing an option, the alternative choices of which could not exist independently of one another. Thus, the beneficial conversion feature could not be separated from the debt according to paragraph 7 and 12 of APB Opinion No. 14 *Accounting for Convertible Debt and Debt Issued with Stock Purchase Warrants* (ABP 14). The embedded beneficial conversion feature was recognized and measured in accordance with paragraph 5 of EITF 98-5 *Accounting for Convertible Securities with Beneficial Conversion Features or Contingently Adjustable Conversion Ratios* (EITF 98-5) and paragraph 5 of EITF 00-27 *Application of Issue No. 98-5 to Certain Convertible Instruments* (EITF 00-27), whereby the intrinsic value of the beneficial conversion feature was calculated at the commitment date as the difference between the effective conversion price of the convertible note and the fair value of the common stock into which the convertible note was convertible, multiplied by the number of shares into which the convertible note was convertible. The intrinsic value of the beneficial conversion feature, $1,220,410, was treated as a discount on issuance of the convertible note and amortized over the life of the convertible note (paragraph 10 of EITF 98-5 and paragraph 19 of EITF 00-27).

The warrants are detached from the convertible note with no put option feature. There is no liquidated damage or cash penalty payable to the warrant holder if we were not able to register the shares underlying the warrants. According to paragraph 16 of APB 14, the portion of the proceeds of the convertible note issued with the detachable warrants which is allocable to the warrants is accounted for as paid-in capital. The allocation was based on the relative fair values of the two securities at the time of issuance. The portions of the proceeds allocated to the convertible note and warrants were $1,627,311 and $497,689 (refer to Note 8), respectively. The resultant debt discount was amortized over the life of the convertible note (paragraph 16 of APB14).

NOTE 8 STOCKHOLDERS EQUITY

We completed a private placement of 10,660,705 units at a price of $0.425 per unit or $4,530,800 in the aggregate in May 2008. Each unit consists of one share of our common stock and one Series C stock purchase warrant (Series C warrant) to purchase a share of common stock at the initial exercise price of $0.55 per share for a period of two years from the date of issuance. The relative fair value of the common stock was estimated to be $2,972,407 and the relative fair value of the warrants was estimated to be $1,558,393 as determined based on the relative fair value allocation of the proceeds received. The warrants were valued using the Black-Scholes option pricing model. In conjunction with our completion of the acquisition of the HepatAssist related assets in October 2008, we reduced the initial exercise price of the Series C warrants to $0.34 per share. In connection with the private placement, the agent was due a sales commission equal to $90,828 or two (2%) percent of the gross proceeds, which was settled by issuing to the agent 213,713 units. In addition, we issued an aggregate of 50,000 units in payment of legal fees in the amount of $21,250. These units were otherwise issued on the same terms and conditions as the units sold in the private placement.

Pursuant to the Subscription Agreement and the Registration Rights Agreement relating to the private placement, we and the investor parties made other covenants and representations and warranties regarding matters that are customarily included in financings of this nature. In the event that during the twelve month period following the closing date we issue shares at a price per share which is less than $0.425 per share (the Base Share Price), then we are required to issue to the investors the number of shares equal to (1) the quotient of the aggregate purchase price payable under the Securities Purchase Agreement divided by Base Share Price less (2) the quotient of the aggregate purchase price divided by the per share purchase price under the Securities Purchase Agreement.

On August 18, 2008, the Board of Directors agreed to issue 400,000 shares of its restricted common stock for services provided by its investment banker for the period January 1, 2008 to August 31, 2008. The value of the issuance was agreed to be the value of services provided, $170,000. These shares were issued November 8, 2008.

Warrants

We account for warrants granted to unrelated parties in accordance with EITF 00-19 *Accounting for Derivative Financial Instruments Indexed to and Potentially Settled in a Company s Own Stock.* In accordance with the EITF, the fair value of such warrants is classified as a component of permanent equity within additional paid-in capital and is calculated on the date of grant using the Black-Scholes Option pricing model.

Each of our warrants outstanding entitles the holder to purchase one share of our common stock for each warrant share held. No warrants were exercised during the three month period ended March 31, 2009. A summary of our outstanding warrants, which are also described in Notes 4 and 7, is as follows:

	Warrants	Series C Warrants	Series D Warrants
Warrants outstanding and exercisable at March 31, 2009	737,000	12,989,830	750,000
Exercise price	$ 1.50	$ 0.34	$ 0.35
Fair value on date of grant	$ 714,890	$ 1,898,867	$ 98,325
Black-Scholes option pricing model assumptions:			
Risk-free interest rate	4.58 %	2.46 %	2.64 %
Expected term	5 years	2 years	5 years
Expected volatility	96.20 %	94.10 %	84.50 %
Dividend per share	$ 0	$ 0	$ 0
Expiration date	May 11, 2012	May 23, 2010	October 3, 2013

A total of 14,476,830 shares of our common stock have been reserved for issuance upon exercise of warrants shares outstanding as of March 31, 2009. As stated in Note 4, subsequent to March 31, 2009, we entered into a Repurchase Agreement with Arbios whereby we repurchased the Series D warrants from Arbios in consideration of the payment of the Deferred Cash Purchase Price on April 22, 2009.

NOTE 9 - STOCK OPTIONS

We have an active stock option plan that provides shares available for option grants to employees, directors and others. A total of 40,000,000 shares of our common stock have been reserved for award under the stock option plan, of which 35,098,000 were available for future issuance as of March 31, 2009. Options granted under our option plan generally vest over two to five years or as otherwise determined by the Board of Directors, have exercise prices equal to the fair market value of the common stock on the date of grant, and expire no later than ten years after the date of grant.

During the three month period ended March 31, 2009, total compensation expense charged to operations was $140,631 with $134,123 classified as salaries and benefits and $6,508 included in director fees. Of the amount classified as salaries, $96,940 was due to early achievement of milestone based options related to a grant in October 2006.

As of March 31, 2009, we had $144,655 of total unrecognized compensation cost related to unvested stock options, which is expected to be recognized over a weighted average period of approximately 4.24 years.

We do not repurchase shares to fulfill the requirements of options that are exercised. Further, we issue new shares when options are exercised.

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, 2008 and 2007, and the related consolidated statements of operations, stockholders' equity (deficit), and cash flows for the years then ended, and for the period from October 21, 1997 (date of inception) to December 31, 2008. 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, 2008 and 2007, 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, 2008, in conformity with accounting principles generally accepted in the United States.

/S/ PETERSON SULLIVAN LLP

March 20, 2009
Seattle, Washington

HEPALIFETECHNOLOGIES, INC.
(A Development Stage Company)

CONSOLIDATED BALANCESHEETS
December 31, 2008 and 2007

(Expressed in U.S. Dollars)	2008	2007
ASSETS		
Current assets		
Cash and cash equivalents	$ 3,084,155	$ 534,113
Prepaid expenses (Note 7)	98,716	4,338
Total current assets	3,182,871	538,451
Equipment, net (Note 6)	-	10,882
License fee	-	75,000
Deferred financing costs (Note 8)	-	210,728
Total assets	$ 3,182,871	$ 835,061
LIABILITIES		
Current liabilities		
Accounts payable and accrued liabilities	$ 105,250	$ 4,800
Accounts payable - related parties (Note 5)	-	208,330
Notes payable - related party (Note 5)	-	877,800
Total current liabilities	105,250	1,090,930
Contract commitment payable (Note 4)	200,000	-
Discount on contract commitment payable	(12,873)	-
Convertible promissory note, at face value (Note 8)	-	755,000
Discount on convertible promissory notes	-	(468,343)
	187,127	286,657
Total liabilities	292,377	1,377,587
STOCKHOLDERS' EQUITY (DEFICIT)		
Stockholders' equity (deficit) (Note 9)		
Preferred stock: $0.10 par value; Authorized: 1,000,000 Issued and outstanding: none	-	-
Common stock: $0.001 par value; Authorized: 300,000,000Issued and outstanding: 91,996,829 (2007: 76,264,584)	91,998	76,265
Additional paid-in capital	22,120,493	15,039,050
Accumulated other comprehensive income	(381)	(3,772)
Loss accumulated during the development stage	(19,321,616)	(15,654,069)
Total stockholders' equity (deficit)	2,890,494	(542,526)
Total liabilities and stockholders' equity	$ 3,182,871	$ 835,061

(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, 2008 and 2007
and from inception (October 21, 1997) to December 31, 2008

(Expressed in U.S. Dollars)	2008	2007	From inception (October 21, 1997) to December 31, 2008
Revenue	$ -	$ -	$ -
Expenses			
Salary and benefits	1,157,785	1,513,522	5,634,755
Research and development (Notes 4 and 7)	892,386	172,533	1,913,674
Shareholder and investor relations	354,308	544,943	4,154,714
Administrative and general	324,393	307,035	1,259,340
Professional fees- accounting and legal	204,422	99,893	711,943
Director, management and consulting fees (Note 5)	20,705	26,932	1,023,042
Depreciation	7,821	16,255	35,410
Stock offering costs	-	-	1,926,713
	2,961,820	2,681,113	16,659,591
Operating Loss	(2,961,820)	(2,681,113)	(16,659,591)
Other income and expenses			
Interest on promissory note (Note 5)	(41,615)	(80,431)	(355,112)
Interest, bank charges and foreign exchange loss	(11,261)	(8,561)	(35,807)
Interest income	30,831	39,451	120,119
Loss on disposal of fixed assets	(3,061)	-	(3,061)
Amortization of discount on convertible notes (Note 8)	(469,893)	(1,624,756)	(2,094,649)
Amortization of deferred financing costs (Note 8)	(210,728)	(82,787)	(293,515)
	(705,727)	(1,757,084)	(2,662,025)
Net loss available to common stockholders	$ (3,667,547)	$ (4,438,197)	$ (19,321,616)
Loss per share - basic and diluted	$ (0.04)	$ (0.06)	
Weighted average number of common shares outstanding - basic and diluted	85,952,917	74,101,897	

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

HEPALIFE TECHNOLOGIES, INC.
(A Development Stage Company)

CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY (DEFICIT)
from inception (October 21, 1997) to December 31, 2008

(Expressed in U.S. Dollars)	Common Stock Shares	Common Stock Amount	Additional paid-in capital	Accumulated other comprehensive income	Loss accumulated during development stage	Comprehensive income (loss)	Total stockholders' equity (deficit)
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
	8,933,332	8,933	125,067	-	-	-	134,000

Conversion of debt to equity at $0.015 per share, July 31, 2001							
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,	-	-	-	-	(375,472)	(375,472)	(375,472)

2002							
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	40,000	40	84,360	-	-	-	84,400

$2.11 per share							
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	374,753	375	505,542	-	-	-	505,917

agreement							
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	382,000	382	204,619	-	-	-	205,001

for cash							
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
Stock based compensation expenses	-	-	935,044	-	-	-	935,044
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
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)

Common stock converted from convertible promissory notes in January 2008	2,342,415	2,343	752,657	-	-	-	755,000
Common stock converted from notes in June 2008	2,065,412	2,065	975,680	-	-	-	977,745
Common stock and warrants issued for cash, at $0.425 per share in May 2008 andin payment of placement and legal fees	10,924,418	10,925	4,519,875	-	-	-	4,530,800
Common stock issued for services received in 2008	400,000	400	169,600	-	-	-	170,000
Warrants granted for purchase of in-process research and development in October 2008	-	-	98,325	-	-	-	98,325
Stock based compensation expenses	-	-	565,306	-	-	-	565,306
Comprehensive income (loss) Foreign currency translation adjustment	-	-	-	3,391	-	3,391	3,391
Loss, year ended December 31, 2008	-	-	-	-	(3,667,547)	(3,667,547)	(3,667,547)
Total comprehensive income						$ (3,664,156)	

Balance, December 31, 2008	91,996,829	$ 91,998	$ 22,120,493	$ (381)	$ (19,321,616)	$ 2,890,494

(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, 2008 and 2007
and from inception (October 21, 1997) to December 31, 2008

(Expressed in U.S. Dollars)	2008	2007	From inception (October 21, 1997) to December 31, 2008
Cash flows from operating activities:			
Net Loss	$ (3,667,547)	$ (4,438,197)	$ (19,321,616)
Adjustments to reconcile net loss to net cash from operating activities:			
Depreciation	7,821	16,255	35,410
Amortization of license fees	87,500	-	87,500
Services paid by issuance of common stock	170,000	-	1,031,100
Stock offering costs paid by issuance of common stock	-	-	1,926,713
In-process research and development partially purchased by issuance of common stock warrants and a contract commitment payable, net of discount	283,903	-	283,903
Stock based compensation expenses	565,306	935,044	4,107,652
Amortization of discount on convertible promissory notes and contract commitment payable	469,893	1,624,756	2,094,649
Amortization of deferred financing costs	210,728	82,787	293,515
Loss on disposal of assets	3,061	-	3,061
Change in assets and liabilities:			
Decrease (increase) in prepaid expenses	(106,880)	(563)	(111,218)
Increase (decrease) in accounts payable	100,450	(165,277)	105,250
Increase (decrease) in accounts payable - related party	(108,384)	49,795	99,946
Net cash used in operating activities	(1,984,149)	(1,895,400)	(9,364,135)
Cash flows from investing activities:			
Purchase of property and equipment	-	(3,878)	(38,471)
Purchase of license fees	-	(75,000)	(75,000)
Net cash used in investing activities	-	(78,878)	(113,471)
Cash flows from financing activities:			
Proceeds from issuance of common stock and warrants, net	4,530,800	495,001	9,787,867

Proceeds from issuance of convertible notes	-	2,125,000	2,125,000
Net proceeds from (repayment of) promissory notes	-	(132,200)	877,800
Increase in deferred financing cost	-	(228,525)	(228,525)
Net cash provided by financing activities	4,530,800	2,259,276	12,562,142
Increase in cash and cash equivalents	2,546,651	284,998	3,084,536
Effect of foreign exchange rate	3,391	(3,772)	(381)
Cash and cash equivalents, beginning of period	534,113	252,887	-
Cash and cash equivalents, end of period	$ 3,084,155	$ 534,113	$ 3,084,155
Supplemental disclosure of cash flow information:			
Interest paid in cash	$ 150,000	$ 25,930	$ 247,575
Income tax paid in cash	$ -	$ -	$ -
Non-cash Investing and Financing Activities:			
Common stock and warrants issued for professional services	$ 282,078	$ -	$ 1,143,078
Issuance of common stock as stock offering costs	$ -	$ -	$ 1,926,713
Issuance of warrants for deferred financing costs	$ -	$ 64,990	$ 64,990
Conversion of note payable and related interest to equity	$ 977,745	$ -	$ 977,745
Conversion of debt to equity	$ 755,000	$ 1,745,000	$ 2,500,000

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

HEPALIFE TECHNOLOGIES, INC.
(A Development Stage Company)

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2008
(Expressed in U.S. Dollars)

NOTE 1 - BASIS OF PRESENTATION, GOING CONCERN UNCERTAINITIES

We are a development stage biotechnology company focusing on the development of a cell-based bioartificial liver system.

We have incurred net operating losses since inception. We face all the risks common to companies in early stages of development, including undercapitalization and uncertainty of funding sources, high initial expenditure levels, uncertain revenue streams, and difficulties in managing growth. We expect to continue to incur losses from business operations and we believe our cash and cash equivalents balances, anticipated cash flows from operations, and other external sources of credit will be sufficient to meet our cash requirements through March 2010. The future of the Company after March 2010 will depend in large part on our ability to successfully raise capital from external sources to pay for planned expenditures and to fund operations.

NOTE 2 - SIGNIFICANT ACCOUNTING POLICIES

Principles of Consolidation

The accompanying consolidated financial statements have been prepared on the accrual basis in accordance with accounting principles generally accepted in the United States, and include the accounts of HepaLife Technologies, Inc. and its 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 research and development efforts 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.

Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States 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 us. Actual results could differ from those estimates.

Reclassification

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

Cash and Cash Equivalents

We consider all highly liquid instruments purchased with an original maturity of three months or less to be cash equivalents. We did not have any cash equivalents at December 31, 2008 and 2007. We periodically have cash deposits in excess of insured limits.

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 fixtures - 2 years
Repairs and maintenance expenses are charged to operations as incurred.

Research and Development

Research and development costs are expensed as incurred and include purchased in-process research and development programs.

Income Taxes

We account 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.

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 anti-dilutive.

Stock-Based Compensation

We account 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.

Comprehensive Income

SFAS No. 130, *"Reporting Comprehensive Income*" establishes standards for reporting and display of comprehensive income, its components and accumulated balances. We disclose required information on the Consolidated Statements of Stockholders' Equity (Deficit). Comprehensive income comprises equity changes except those resulting from investments by owners and distributions to owners.

Foreign Currency Translation

We maintain 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.

Intangible Assets

SFAS No. 142, *Goodwill and Other Intangible Assets* 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, 2008 and 2007.

Impairment of Long-Lived Assets

Long-lived assets are reviewed for impairment when changes in circumstances indicate their carrying value has become impaired, pursuant to guidance established in SFAS No 144, *Accounting for the Impairment or Disposal of Long-Lived Assets.* We consider 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.

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 judgment, 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. We place our cash with high credit quality financial institutions.

Related Party Transactions

A related party is generally defined as (i) any person who holds 10% or more of the Company s securities and their immediate families, (ii) the Company s management, (iii) someone who 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 5).

Recent and Adopted Accounting Pronouncements

In September 2006, the Financial Accounting Standards Board (FASB) issued SFAS No. 157, *Fair Value Measurements* (SFAS 157), which defines fair value, establishes a framework for measuring fair value, and expands disclosures about fair-value measurements required under other accounting pronouncements. It does not change existing guidance as to whether or not an instrument is carried at fair value. SFAS 157 was effective for financial statements issued for fiscal years beginning after November 15, 2007, and interim periods within those fiscal years. In February 2008, the FASB issued FASB Staff Position (FSP) No. 157-1 (FSP FAS 157-1), which excludes SFAS No. 13, *Accounting for Leases* and certain other accounting pronouncements that address fair value measurements under SFAS 13, from the scope of SFAS 157. In February 2008, the FASB issued FSP

No. 157-2 (FSP FAS 157-2), which provides a one-year delayed application of SFAS 157 for nonfinancial assets and liabilities, except for items that are recognized or disclosed at fair value in the financial statements on a recurring basis (at least annually). Therefore we have adopted the provisions of SFAS 157 with respect to financial assets and liabilities only. We are required to adopt SFAS 157 as amended by FSP FAS 157-1 and FSP FAS 157-2 on January 1, 2009, the beginning of our fiscal year, as related to nonfinancial assets and liabilities. We do not

expect the application of the amended aspects of SFAS No. 157 to have a material effect on the Company s consolidated financial statements.

In October 2008, the FASB issued FASB Staff Position No. FAS 157-3, *Determining the Fair Value of a Financial Asset in a Market That Is Not Active* (FSP FAS 157-3), which clarifies the application of SFAS 157 when the market for a financial asset is inactive. Specifically, FSP FAS 157-3 clarifies how (1) management s internal assumptions should be considered in measuring fair value when observable data are not present, (2) observable market information from an inactive market should be taken into account, and (3) the use of broker quotes or pricing services should be considered in assessing the relevance of observable and unobservable data to measure fair value. The guidance in FSP FAS 157-3 is effective immediately and did not have an impact on the Company s consolidated financial statements.

In February 2007, the FASB issued SFAS No. 159, *The Fair Value Option for Financial Assets and Financial Liabilities-Including an amendment of FASB Statement No. 115,* which is effective for fiscal years beginning after November 15, 2007. The statement permits entities to choose to measure many financial instruments and certain other items at fair value. The Company has not elected the fair value option under SFAS 159 for any instrument, but may elect to do so in future periods.

In July 2007, the Emerging Issues Task Force (EITF) issued EITF 07-3, *Accounting for Nonrefundable Advance Payments for Goods or Services to be Used in Future Research and Development Activities* (EITF 07-3). EITF 07-3 clarifies the accounting for nonrefundable advance payments for goods or services that will be used or rendered for research and development activities. EITF 07-3 states that such payments should be capitalized and recognized as an expense as the goods are delivered or the related services are performed. If an entity does not expect the goods to be delivered or the services rendered, the capitalized advance payment should be charged to expense. EITF 07-3 is effective for fiscal years beginning after December 15, 2007. The Company s adoption of EITF 07-3 did not have an impact on the Company s financial position or results of operations.

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). SFAS 160 establishes accounting and reporting standards for ownership interests in subsidiaries held by parties other than the parent, changes in a parent s ownership of a noncontrolling interest, calculation and disclosure of the consolidated net income attributable to the parent and the noncontrolling interest, changes in a parent s ownership interest while the parent retains its controlling financial interest and fair value measurement of any retained noncontrolling equity investment. SFAS 160 is effective for financial statements issued for fiscal years beginning after December 15, 2008, and interim periods within those fiscal years. Early adoption is prohibited. The Company must adopt SFAS 160 on January 1, 2009, the beginning of its fiscal year 2009. The Company does not expect the application of SFAS 160 to have a material effect on the consolidated financial statements.

In December 2007, the FASB issued SFAS No. 141R, *Business Combinations* (SFAS 141R), which establishes principles and requirements for the reporting entity in a business combination, including recognition and measurement in the financial statements of the identifiable assets acquired, the liabilities assumed, and any noncontrolling interest in the acquiree. SFAS 141R applies prospectively to business combinations for which the acquisition date is on or after the beginning of the first annual reporting period beginning on or after December 15, 2008, and interim periods within those fiscal years. The Company must adopt SFAS 141R on January 1, 2009, the beginning of its fiscal year 2009. For any business combinations entered into by the Company subsequent to January 1, 2009, the Company will be required to apply the guidance in SFAS 141R.

In December 2007, the FASB ratified a consensus opinion reached by the EITF on EITF Issue 07-1, *Accounting for Collaborative Arrangements* (EITF 07-1). The guidance in EITF 07-1 defines collaborative arrangements and establishes presentation and disclosure requirements for transactions within a collaborative arrangement (both with third parties and between participants in the arrangement). The consensus in EITF 07-1 is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2008. The consensus requires retrospective application to all collaborative arrangements existing as of the effective date, unless retrospective application is impracticable. The impracticability evaluation and exception should be performed on an arrangement-by-arrangement basis. The Company intends to adopt EITF 07-1 effective January 1, 2009 and retrospectively apply

the requirements of this consensus to its collaborative arrangements in existence on that date, if any. The Company currently does not believe that the adoption of EITF 07-1 will have a significant effect on its financial statements.

In December 2007, the SEC staff issued Staff Accounting Bulletin (SAB) 110, *Share-Based Payment* (SAB 110) which amends SAB 107, *Share-Based Payment,* to permit public companies, under certain circumstances, to use the simplified method in SAB 107 for employee option grants after December 31, 2007. Use of the simplified method after December 2007 is permitted only for companies whose historical data about their employees exercise behavior does not provide a reasonable basis for estimating the expected term of the options. The Company currently uses the simplified method to estimate the expected term for employee option grants as adequate historical experience is not available to provide a reasonable estimate. SAB 110 is effective for employee options granted after December 31, 2007. The Company adopted SAB 110 effective January 1, 2008 and continues applying the simplified method until enough historical experience is readily available to provide a reasonable estimate of the expected term for employee option grants.

In June 2008, the FASB issued Staff Position EITF 03-06-1, *Determining Whether Instruments Granted in Share-Based Payment Transactions Are Participating Securities* (FSP EITF 03-06-1). FSP EITF 03-06-1 provides that unvested share-based payment awards that contain nonforfeitable rights to dividends or dividend equivalents (whether paid or unpaid) are participating securities and shall be included in the computation of earnings per share pursuant to the two-class method in SFAS No. 128, Earnings per Share and is effective for fiscal years beginning after December 15, 2008. We do not believe the implementation of FSP EITF 03-06-1 will have any impact on the Company s consolidated financial statements.

NOTE 3 - LOSS PER SHARE

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

	Years ended	
	2008	2007
Numerator - net loss available to common stockholders	$ (3,667,547)	$ (4,438,197)
Denominator - weighted average number of common shares outstanding	85,952,917	74,101,897
Basic and diluted loss per common share	$ (0.04)	$ (0.06)

NOTE 4 PURCHASED IN-PROCESS RESEARCH AND DEVELOPMENT

On October 3, 2008, we purchased certain assets of Arbios Systems, Inc. in order to enhance and strengthen our current PICM-19 porcine liver cell line based bioartificial liver technology relating to the pig cell based liver device technology formerly known as HepatAssist. We re-trademarked the device as HepaMate.

The effective purchase price of $548,325 was charged to operations in 2008 as purchased in-process research and development expense and consists of:

Cash	$ 250,000
Contract Commitment, discounted @5% or $14,422	200,000
Series D warrants, at fair value	98,325
Assumed liabilities	-
Total effective acquisition price	$ 548,325

The deferred $200,000 payment is due and payable on the earlier of (i) the date on which we consummate one or more debt or equity financings in which the gross proceeds received in the aggregate equal or exceed $4,000,000, or (ii) the eighteen month anniversary of the closing date. The deferred payable does not bear interest. In accordance with Accounting Principles Board (APB) Opinion No. 21 *Interest on Receivables and Payables*, we discounted the payable with an effective annual interest rate of 5% and the associated amortization of the discount is charged to interest expense over the 18 month expected life of the note. The contract commitment payable of $200,000 is recorded in noncurrent liabilities, net of unamortized discount of $12,873. For the year ended December 31, 2008, $1,549 of discount amortization was charged to interest expense.

The fair value of the 750,000 Series D warrants issued in connection with this transaction was calculated as $98,325 using the Black-Scholes option pricing model with assumptions for a risk free interest rate of 2.64%, an expected life of 5 years, no dividend yield, and a volatility factor of 84.5% .

NOTE 5 - RELATED PARTY TRANSACTIONS

Director and Management Fees: For the year ended December 31, 2008, we incurred $19,343 in board fees for non-employee directors of the Company. In addition, during June and September 2008, we granted stock options to purchase 50,000 shares each for a total of 200,000 shares of common stock to non-employee board members. For the year ended December 31, 2008, we recorded $12,541 as stock compensation expense relating to these stock grants (refer to Note 10). During the year ended December 31, 2007, we paid management fees of $4,900 to non-employee directors. There is no management or consulting agreements in effect.

Legal Fees: In relation to our May 2008 Private Placement, we settled $21,250 in legal costs by issuing 50,000 Units to our attorney who also serves as a board member. Legal fees expensed for the year ended December 31, 2008 that were paid or are due to this attorney total $111,150.

Notes Payable and Accrued Interest: On May 23, 2008, we reached an agreement with Mr. Harmel Rayat to which Mr. Rayat (i) converted the entire outstanding principal amount ($877,800) of his loan to the Company into an aggregate of 2,065,412 Units, each Unit consisting of one share of the Company s common stock and one Series C warrant, at a conversion price of $0.425 per Unit and (ii) agreed to accept $150,000 in full payment and satisfaction of the accrued and unpaid interest on the loan in the amount of $249,945.

Rent: Until August 31, 2008, our administrative office was located at 1628 West 1st Avenue, Suite 216, Vancouver, British Columbia, Canada, V6J 1G1. This premise is owned by a private corporation controlled by Mr. Rayat. We paid rent of $26,866 for the year ended December 31, 2008 (2007: $35,740). Effective September 1, 2008, we closed this administrative office, terminating all of its employees. There were no severance arrangements with any of the terminated employees.

Mr. Harmel S. Rayat was an officer, director and majority stockholder of the Company until June 2008. 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 6 EQUIPMENT

	December 31, 2008	December 31, 2007
Computer equipment	$ -	$ 37,382
Furniture and fixtures	-	1,089
	-	38,471
Less: accumulated depreciation	-	(27,589)
	$ -	$ 10,882

During the year ended December 31, 2008, we removed the cost and related accumulated depreciation for equipment that was either no longer in service or deemed obsolete. Substantially all of this equipment was located at the Company s administrative office in Vancouver, British Columbia, Canada, which, effective September 1, 2008, was closed. We recorded a loss on disposal of fixed assets of $3,061 in the consolidated statement of operations for the year ended December 31, 2008.

Depreciation expenses charged to operations for the years ended December 31, 2008 and 2007 were $7,821 and $16,255 respectively.

NOTE 7 - COOPERATIVE AND LICENSE AGREEMENTS

USDA, ARS CRADA: In November 2002, we entered into a Cooperative Research and Development Agreement (CRADA) with the U.S. Department of Agriculture (USDA), Agricultural Research Service (ARS) pertaining to the continued development and use of patented liver cell lines in artificial liver devices and in-vitro toxicological testing platforms. This agreement was amended several times, with a final agreement termination date of November 2009. We terminated the CRADA effective November 30, 2008. For the years ended December 31, 2008 and 2007, costs charged to research and development expense under the CRADA totaled $268,359 and $144,103 respectively.

USDA, ARS License: On November 20, 2007, we exercised our license right under the CRADA by entering into an exclusive license agreement with the USDA, ARS for existing and future patents related to the PICM-19 hepatocyte cell lines. Under this license agreement, we incurred a license execution fee of $150,000 with $75,000 paid in December 2007 and $75,000 paid in November 2008. In addition to these payments during the first two years of the contract, we are responsible for annual license maintenance fees commencing in year 2010 for the term of the license, which is until the expiration of the last to expire licensed patents unless terminated earlier. These annual fees are capitalized to prepaid license costs when incurred and amortized to operating expense over the course of each year. The license agreement also requires certain milestone payments, if and when milestones are reached, as well as royalties on net sales of resulting licensed products, if any.

MSU License: On June 15, 2006, we entered into an exclusive worldwide license agreement with Michigan State University (MSU) through our subsidiary, Phoenix BioSystems, Inc. (PBS), 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 was amended on February 2, 2008. The license agreement provides us exclusive rights to certain issued patents, for which we paid an initial fee of $1,000 upon execution of the agreement in 2006. The agreement requires royalties on net sales of resulting licensed products, if any, with minimum payments due commencing in year 2010 for the term of the license, which is 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.

We are also required to make certain milestone payments to MSU, if and when achieved.

As part of the license agreement, on October 2, 2006 PBS issued 17,650 common shares at par value, or 15% of the total issued and outstanding shares of PBS, to an individual who is also a member of the Company s scientific advisory board. After issuance of the shares, we hold 85% of the total issued and outstanding shares of PBS. We recorded the fair value of the 15% issued shares at a nominal value. As PBS had no assets or liabilities, no value was allocated to the minority interest.

For the year ended December 31, 2007, we charged to research and development expense $32,426 relating to the MSU license, with no costs incurred during 2008 and costs incurred to date totaling $73,352. In January 2009, we provided notice to MSU to terminate the license agreement effective April 24, 2009. Any costs for the remainder of the license agreement term will be charged to operating expense as incurred.

NOTE 8 - CONVERTIBLE PROMISSORY NOTE

On May 11, 2007, we entered into a Securities Purchase Agreement with GCA Strategic Investment Limited for the sale of a convertible note with a $2,500,000 aggregate principal amount and maturity date of May 11, 2009. The convertible note was issued on May 11, 2007 at a purchase price of $2,125,000 (eighty-five per cent of the principal amount). The convertible note does not bear interest, except upon an event of default at which time interest would 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 the Company's common stock. In connection therewith, we 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) for a term of five years.

In connection with this transaction, we also agreed to pay the purchaser s adviser out of pocket fees of $15,000; and pay to Equinox Securities, Inc., a NASD registered broker/dealer, pursuant to an agreement dated April 19, 2007, 10% of the amount funded plus a warrant to purchase a number of shares of the Company s common stock equal to 10% of the number of shares subject to the warrants issued in connection with the convertible at the same exercise price of $1.50 per share, or 67,000 shares, in consideration of its efforts in securing, on behalf of the Company, the financing with the purchaser.

The convertible note contained a prepayment option and redemption feature under certain conditions and circumstances. A registration statement relating to the resale of the common shares issuable under the conversion of the convertible note and exercise of the warrants was declared effective on July 5, 2007.

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 of 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.

In 2007, $1,745,000 of the convertible note was converted into 2,604,721 shares of common stock. In January 2008, the remaining $755,000 of the convertible note was converted into 2,342,415 shares of common stock. For the year ended December 31, 2008, the remaining discount of $468,343 (2007: $1,624,756) and issuance costs of $210,728 (2007: $82,787) relating to the convertible note were charged to operations.

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

The convertible note contained a conversion feature that allowed 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 did not embody a claim to the residual interest in the Company, the economic characteristics and risks of the host contract was considered that of a debt instrument and classified as a liability.

We determined that the embedded conversion option did not meet the definition of a derivative as described under SFAS No. 133 *Accounting for Derivative Instruments and Hedging Activities* paragraph 12(a) and 12(c) as the conversion option results in a fixed monetary benefit to the holder known at the measurement date.

The convertible note was a complex hybrid instrument bearing an option, the alternative choices of which could not exist independently of one another. Thus, the beneficial conversion feature could not be separated from the debt according to paragraph 7 and 12 of APB Opinion No. 14 *Accounting for Convertible Debt and Debt Issued with Stock Purchase Warrants* (ABP 14). The embedded beneficial conversion feature was recognized and measured in accordance with paragraph 5 of EITF 98-5 *Accounting for Convertible Securities with Beneficial Conversion Features or Contingently Adjustable Conversion Ratios* (EITF 98-5) and paragraph 5 of EITF 00-27 *Application of Issue No. 98-5 to Certain Convertible Instruments* (EITF 00-27), whereby the intrinsic value of the beneficial conversion feature was calculated at the commitment date as the difference between the effective conversion price of the convertible note and the fair value of the common stock into which the convertible note was convertible, multiplied by the number of shares into which the convertible note was convertible. The intrinsic value of the beneficial conversion feature, $1,220,410, was treated as a discount on issuance of the convertible note and amortized over the life of the convertible note (paragraph 10 of EITF 98-5 and paragraph 19 of EITF 00-27).

The warrants are detached from the convertible note with no put option feature. There is no liquidated damage or cash penalty payable to the warrant holder if the Company was not able to register the shares underlying the warrants. According to paragraph 16 of APB 14, the portion of the proceeds of the convertible note issued with the detachable warrants which is allocable to the warrants is accounted for as paid-in capital. The allocation was based on the relative fair values of the two securities at the time of issuance. The portions of the proceeds allocated to the convertible note and warrants were $1,627,311 and $497,689 (refer to Note 9), respectively. The resultant debt discount was amortized over the life of the convertible note (paragraph 16 of APB14).

NOTE 9 STOCKHOLDERS EQUITY (DEFICIT)

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 shares of common stock over a thirty month period. During the years ended December 31, 2007 and 2006, Fusion Capital had purchased 891,019 and 2,154,661 shares of common stock of the Company for total proceeds of $495,001 and $1,719,996, respectively. 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.

On May 23, 2008, we completed a private placement of 10,660,705 units at a price of $0.425 per unit or $4,530,800 in the aggregate. Each unit consists of one share of the Company s common stock and one Series C stock purchase warrant (Series C warrant) to purchase a share of common stock at the initial exercise price of $0.55 per share for a period of two years from the date of issuance. The relative fair value of the common stock was estimated to be $2,972,407 and the relative fair value of the warrants was estimated to be $1,558,393 as determined based on the relative fair value allocation of the proceeds received. The warrants were valued using the Black-Scholes option pricing model. In conjunction with our completion of the acquisition of the HepatAssist related assets in October 2008, we reduced the initial exercise price of the Series C warrants to $0.34 per share. In connection with the private placement, the agent was due a sales commission equal to $90,828 or two (2%) percent of the gross proceeds, which was settled by issuing to the agent 213,713 units. In addition, we issued an aggregate of 50,000 units in payment of legal fees in the amount of $21,250 (refer to Note 5). These units were otherwise issued on the same terms and conditions as the units sold in the private placement.

Pursuant to the Subscription Agreement and the Registration Rights Agreement relating to the private placement, the Company and the investor parties made other covenants and representations and warranties regarding matters that are customarily included in financings of this nature. In the event that during the twelve month period following the closing date the Company issues shares at a price per share which is less than $0.425 per share (the Base Share Price), then the Company is required to issue to the investors the number of shares equal to (1) the quotient of the aggregate purchase price payable under the Securities Purchase Agreement divided by Base Share Price less (2) the quotient of the aggregate purchase price divided by the per share purchase price under the Securities Purchase Agreement.

On August 18, 2008, the Board of Directors agreed to issue 400,000 shares of its restricted common stock for services provided by its investment banker for the period January 1, 2008 to August 31, 2008. The value of the issuance was agreed to be the value of services provided, $170,000. These shares were issued November 8, 2008.

Warrants

We account for warrants granted to unrelated parties in accordance with EITF 00-19 *Accounting for Derivative Financial Instruments Indexed to and Potentially Settled in a Company s Own Stock.* In accordance with the EITF, the fair value of such warrants is classified as a component of permanent equity within additional paid-in capital and is calculated on the date of grant using the Black-Scholes Option pricing model.

Each of the Company s warrants outstanding entitles the holder to purchase one share of the Company s common stock for each warrant share held. No warrants were exercised during the years ended December 31, 2008 and 2007. A summary of the Company s warrants outstanding, which are also described in Notes 4, 5, and 8, is as follows:

	Warrants	Series C Warrants	Series D Warrants
Warrants outstanding and exercisable at December 31, 2008	737,000	12,989,830	750,000
Exercise price	$ 1.50	$ 0.34	$ 0.35
Fair value on date of grant	$ 714,890	$ 1,898,867	$ 98,325
Black-Scholes option pricing model assumptions:			
Risk-free interest rate	4.58%	2.46%	2.64%
Expected term	5 years	2 years	5 years
Expected volatility	96.20%	94.10%	84.50%
Dividend per share	$ 0	$ 0	$ 0
Expiration date	May 11, 2012	May 23, 2010	October 3, 2013

A total of 14,476,830 shares of the Company s common stock have been reserved for issuance upon exercise of warrants shares outstanding as of December 31, 2008.

NOTE 10 - STOCK OPTIONS

We have an active stock option plan that provides shares available for option grants to employees, directors and others. A total of 40,000,000 shares of the Company s common stock have been reserved for award under the stock option plan, of which 35,098,000 were available for future issuance as of December 31, 2008. Options granted under the Company s option plan generally vest over two to five years or as otherwise determined by the Board of Directors, have exercise prices equal to the fair market value of the common stock on the date of grant, and expire no later than ten years after the date of grant.

Stock option activity during the years ended December 31, 2008 and 2007 is summarized as follows:

	Number of options	Weighted average exercise price	Remaining contractual term	Aggregate intrinsic value
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		
Granted	775,000	0.54		
Cancelled	(101,750)	0.43		
Outstanding at December 31, 2008	2,700,000	0.53	8.44	$ -
Exercisable at December 31, 2008	100,000	0.61	9.45	-
Available for grant at December 31, 2008	35,098,000			

The aggregate intrinsic value in the table above represents the total pretax intrinsic value for all in-the-money options (i.e. the difference between the Company s closing stock price on the last trading day of the year ended December 31, 2008 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, 2008. This amount is based on the fair market value of the Company s stock. Total intrinsic value of options exercised was $nil at December 31, 2008 (2007: $nil).

A summary of the Company s unvested stock options and changes during the years ended December 31, 2008 and 2007 is as follows:

	Number of Options	Weighted Average Grant Date Fair Value
Unvested, December 31, 2006	4,650,000	$ 0.51
Granted	2,026,750	0.43
Cancelled	(4,650,000)	0.51
Unvested, December 31, 2007	2,026,750	0.43
Granted	775,000	0.37
Vested	(100,000)	0.41
Cancelled	(101,750)	0.26
Unvested, December 2008	2,600,000	0.42

The following table details further information regarding stock options outstanding and exercisable at December 31, 2008:

Range of Exercise Prices	Outstanding Number Outstanding at December 31, 2008	Outstanding Weighted Average Remaining Contractual Life (Years)	Outstanding Weighted Average Exercise Price	Exercisable Number Exercisable at December 31, 2008	Exercisable Weighted Average Exercise Price
$ 0.52	2,000,000	8.07	$ 0.52	-	$ -
0.61	550,000	9.45	0.61	100,000	0.61
0.57	50,000	9.47	0.57	-	-
0.25	100,000	9.70	0.25	-	-
$ 0.53	2,700,000	8.44	$ 0.53	100,000	$ 0.61

During the years ended December 31, 2008 and 2007, we granted 775,000 and 2,026,750 stock options awards. For purposes of determining the stock-based compensation expense for stock option awards granted, the Black-Scholes option-pricing model was used with the following weighted-average assumptions:

	2008 Stock Option Grants	2007 Stock Option Grants
Risk-free interest rate	2.75% - 3.57%	3.41% - 4.85%
Expected term	5 years	4.7 - 5 years
Expected volatility	83.32% - 90.53%	93.95% - 94.73%
Weighted-average volatility	84.2%	94.0%
Dividend per share	$0	$0

The weighted average fair value of options granted during the year ended December 31, 2008 was $0.37 (2007: $0.43) per share.

During the year ended December 31, 2008, total compensation expense charged to operations was $565,306 (2007: $935,044), with $552,765 classified as salaries and benefits and $12,541 included in director fees. As of December 31, 2008, the Company had $285,286 of total unrecognized compensation cost related to unvested stock options, which is expected to be recognized over a weighted average period of approximately 8.40 years. The fair value of stock options that vested during the year ended December 31, 2008 was $41,000.

We do not repurchase shares to fulfill the requirements of options that are exercised. Further, we issue new shares when options are exercised.

NOTE 11 INCOME TAXES

There is no current or deferred tax expense for the years ended December 31, 2008 and 2007 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:

	2008	2007
Net operating loss carryforwards	$ 3,180,000	$ 2,262,000
Stock compensation costs	1,397,000	1,204,000
Other	566,000	683,000
	5,143,000	4,149,000
Valuation allowance	(5,143,000)	(4,149,000)
Net deferred tax assets	$ -	$ -

The 2008 increase in the valuation allowance was $944,000 (2007: $957,000).

The Company has available net operating loss carryforwards of approximately $9,534,000 for tax purposes to offset future taxable income which expire commencing 2009 to 2028. Additionally, research and development, and startup costs of approximately $1,665,000 are available to reduce taxable income assuming normal operations have commenced. The tax years 2006 through 2008 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 2008, 2007 and 2006 is as follows:

	2008	2007
Statutory federal income tax	-34.00%	-34.00%
Valuation allowance	32.00	34.00
Stock offering costs	2.00	-
Effective income tax rate	0.00%	0.00%