HEPALIFE TECHNOLOGIES INC
Form S-1
June 12, 2007

As Filed With The U.S. Securities & Exchange Commission On June 11, 2007

Registration No. 1

SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

FORM S-1

REGISTRATION STATEMENT

UNDER THE SECURITIES ACT OF 1933

HEPALIFE TECHNOLOGIES, INC.

(Exact name of registrant as specified in its charter)

Florida	**3841**	**58-2349413**
(State or other jurisdiction of incorporation or organization)	(Primary Standard Industrial Classification Code Number)	(I.R.S. Employer Identification No.)

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Boston, MA 02109

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(Address and telephone of registrant's executive office) (Name, address and telephone number of agent for service)

Copies To:

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Approximate date of commencement of proposed sale to the public:

As soon as practicable after this registration statement becomes effective.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, please check the following box. **[X]**

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, check the following box and list the Securities Act registration number of the earlier effective registration statement for the same offering. [ ]

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration number of the earlier effective registration statement for the same offering. [ ]

If this Form is a post effective amendment filed pursuant to Rule 462 (d) under the Securities Act, check the following

box and list the Securities Act registration number of the earlier effective registration statement for the same offering. [ ]

If delivery of the prospectus is expected to be made pursuant to Rule 434, please check the following box. [ ]

CALCULATION OF REGISTRATION FEE

Title Of Each Class Of Securities To Be Registered	Amount To Be Registered	Proposed Maximum Offering Price Per Share (1)	Proposed Maximum Aggregate Offering Price (1)	Amount Of Registration Fee
Common stock, par value $0.001 per share (2)	4,444,444	$0.93	$4,133,333	$126.89
Common stock, par value $0.001 per share (3)	737,000	$1.50	$1,105,500	$33.94
TOTAL	5,181,444 **(4)**		**$**5,238,833	$160.83

1.

Estimated solely for the purpose of computing the registration fee pursuant to Rule 457(c) under the Securities Act of 1933; the closing sale price of the Registrant s stock on June 8, 2007, as quoted on the National Association of Securities Dealers, Inc. s Over the Counter Bulletin Board was $0.93. It is not known how many shares will be purchased under this Registration Statement or at what price shares will be purchased.

2.

These shares represent the shares that can be received by the holder of the Registrant s convertible promissory note dated May 11, 2007 (the **Convertible Note**) in the principal aggregate amount of $2,500,000, issued by the Registrant to GCA Strategic Investment Fund Limited (**GCA Strategic**) pursuant to the terms of a Securities Purchase Agreement dated May 11, 2007 between the Registrant and GCA Strategic (the **Securities Purchase Agreement**) when and if it elects to convert, in whole or in part, the Convertible Note. The shares registered consist of two (2) times the number of shares of common stock that would have been issuable to GCA Strategic under the terms of the Convertible Note had it been exercised on May 11, 2007. The actual number of shares into which the Convertible Note may be converted may be greater or less than the number of shares being registered.

3.

These shares represent (i) 670,000 shares that can be received by the holder of the Registrant s common stock purchase warrant dated May 11, 2007 (the GCA **Warrants**) and issued by the Registrant to GCA Strategic pursuant to the terms of the Securities Purchase Agreement, when and if it elects to convert, in whole or in part, the GCA Warrants and (ii) the 67,000 shares, that can be received by the holder of the Registrant s common stock purchase warrant dated May 11, 2007 (the **Placement Warrants**) and issued by the Registrant to Equinox Securities, Inc. pursuant to an agreement dated April 19, 2007. The GCA Warrants and the Placement Warrants are exercisable at a price of $1.50 per share.

4.

This Registration Statement includes an indeterminate number of additional shares of common stock issuable by reason of any stock dividend, stock split, or other similar transaction effected without the receipt of consideration, which results in an increase in the number of outstanding shares of our common stock. In the event of a stock split, stock dividend or similar transaction involving our common stock, in order to prevent dilution, the number of shares registered shall be automatically increased to cover the additional shares in accordance with Rule 416(a) under the Securities Act of 1933.

The Registrant hereby amends this Registration Statement on such date or dates as may be necessary to delay its effective date until the Registrant shall file a further amendment which specifically states that this Registration Statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933 or until this Registration Statement shall become effective on such date as the Commission, acting pursuant to said Section 8(a), may determine.

The information in this prospectus is not complete and may be changed. We may not sell these securities until the registration statement filed with the SEC is effective. This prospectus is not an offer to sell and it is not soliciting an offer to buy these securities in any state where the offer or sale is not permitted.

Subject to Completion, Dated June 11, 2007

PROSPECTUS

HEPALIFE TECHNOLOGIES, INC.

5,181,444 Shares of Common Stock

This prospectus relates to the resale by GCA Strategic Investment Fund Limited (GCA Strategic) and Equinox Securities, Inc., (Equinox) of up to 5,181,444 shares of our common stock issuable by us, from time to time, upon:

- conversion of our outstanding convertible promissory note issued by us to, and held by GCA Strategic; and
- exercise of outstanding common stock purchase warrants issued by us to, and held by each of GCA Strategic and Equinox, as further described in this prospectus. **Please refer to the section of this prospectus entitled The GCA Strategic Transaction.**

Each of GCA Strategic and Equinox may be deemed "underwriters" within the meaning of the Securities Act of 1933 as amended (the Securities Act) in connection with their sales of shares of our common stock covered by this prospectus and any commissions or discounts given to any such broker-dealer may be regarded as underwriting commissions or discounts under the Securities Act.

Although we will not receive any proceeds from the resale of these shares, we will receive proceeds if the warrants are exercised.

Our common stock is quoted on the NASD s Over-The-Counter Bulletin Board under the symbol **HPLF**. The closing sale price for our common stock as reported on the Over-the-Counter Bulletin Board on June 8, 2007, was $0.93. 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 involves certain risks. See "Risk Factors" beginning on page 11 for a discussion of these risks.

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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.

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THE DATE OF THIS PROSPECTUS _____, 2007

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You should rely only on the information contained in this prospectus or any supplement hereto. We have not, and the selling stockholder has 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, and the selling stockholder is not, making an offer to sell the common stock 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 or any supplement hereto, regardless of the date of delivery of this prospectus or any supplement hereto, or the sale of common stock. Our business, financial condition, results of operations and prospects may have changed since that date.

We obtained statistical data and certain other industry information and forecasts fused 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.

PROSPECTUS SUMMARY

This summary contains material information, about us and the offering, which is described in detail elsewhere in the prospectus. Since it may not include all of the information you may consider important or relevant to your investment decision, you should read the entire prospectus carefully, including the more detailed information regarding our company, the risks of purchasing our common stock discussed under "Risk Factors" on page 11, and our financial statements and the accompanying notes.

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 stockholder. Capitalized terms used in this ***Prospectus Summary*** *and not otherwise (or previously) defined have the respective meanings ascribed to those terms in the immediately following section titled* ***The GCA Strategic Transaction.***

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. We are authorized to issue up to 300,000,000 shares of common stock (of which 73,659,863 were issued and outstanding on June 8, 2007) 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.

We are a development stage biotechnology company focused on the identification and development of cell-based technologies and products. We currently do not directly conduct any of our research and development activities. Rather, once a technology has been identified, we fund the research and development activities relating to the technology with the intention of ultimately, if warranted, licensing, commercializing and marketing the subject technology.

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

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, 2007 we had a cumulative deficit of $11,945,852.

Artificial Liver Device

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

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

In-Vitro Toxicology Testing

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

Cell Based Vaccine Production

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

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

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

The Offering

We are not offering any securities pursuant to this prospectus.

This prospectus relates to the resale by:

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GCA Strategic of up to (i) 4,444,444 shares of common stock that can be received by GCA Strategic when and if it elects to convert, in whole or in part, the Convertible Note, issued by us to GCA Strategic pursuant to the terms of the Securities Purchase Agreement. The Convertible Note does not contain a fixed conversion price; rather the

conversion price is equal to 95% of the volume weighted average prices, as reported on Bloomberg, L.P., or any third party quotation service, for the five (5) trading days immediately prior to the date of the related notice of conversion; accordingly, we anticipate that these shares, if acquired by GCA Strategic, will be acquired at varying prices; and (ii) of up to 670,000 shares that can be received by GCA Strategic when and if it elects to exercise, in whole or in part, the GCA Warrants, issued by us to, and held by, GCA Strategic, at a price of $1.50 per share; and

•

Equinox of up to 67,000 shares of common stock that can be received by Equinox when and if it elects to exercise, in whole or in part, the Placement Warrants, issued by us as a finders fee pursuant to the Finders Agreement, and held by, Equinox, at a price of $1.50 per share

All of the common stock registered by this prospectus will be sold by the selling stockholders at the prevailing market prices at the time they are sold or at negotiated prices.

Under the terms of the Securities Purchase Agreement and the Registration Rights Agreement we are required to reserve for issuance under the Convertible Note and register for resale a number of shares equal to two times the number of shares issuable thereunder. At May 11, 2007, the Closing Date, this number was 4,444,444 plus all of the shares that are issuable upon exercise of the Warrants. These numbers are reflected in the number of shares shown as being offered by the selling stockholders.

The number of shares which GCA Strategic may receive upon conversion of their Convertible Note may differ from the number of shares registered; if for any reason there are insufficient shares of such shares registered under the then current registration statement to effect full conversion of the Convertible Note or exercise of the GCA Warrants (a "Registration Default"), we have agreed to amend or supplement the registration statement so as to cure such Registration Default. **Please refer to the section of this prospectus entitled The GCA Strategic Transaction.**

As of June 8, 2007, there were 73,659,863 shares outstanding. As of the date of this prospectus, GCA Strategic has not converted any portion of the Convertible Note, and neither GCA Strategic nor Equinox has exercised all or a portion of the Warrants. If all of the shares offered by this prospectus were issued and outstanding as of the date hereof, the number of shares offered by this prospectus would represent approximately 6.6% of the total common stock that would be then outstanding.

THE GCA STRATEGIC TRANSACTION

The Securities Purchase Agreement

On May 11, 2007 (the Closing Date), we entered into a Securities Purchase Agreement (the **Securities Purchase Agreement**) with GCA Strategic. The Securities Purchase Agreement provided for the sale by Company to GCA Strategic of $2,500,000 aggregate principal amount of Company's Convertible Note due May 11, 2009 (the **Convertible Note**). In connection therewith, the Company also issued to GCA Strategic 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 **GCA Warrants**). The Warrants have a term of five years. GCA Strategic has contractually agreed to restrict its ability to convert the Convertible Note and exercise the Warrants and receive shares of our common stock such that the number of shares of our common stock held by them and their affiliates after such conversion and exercise does not exceed 4.9% of the then issued and outstanding shares of our common stock.

Fees and Payments Associated with GCA Strategic Transaction

Under the Securities Purchase Agreement, we are obligated to pay all costs and expenses incurred by us in connection with the negotiation, preparation and delivery of the related documents and agreements, such as the Registration Rights Agreement between us and GCA Strategic, as well as the costs associated with registration of the shares underlying the Convertible Note and the GCA Strategic Warrant.

In connection with the Securities Purchase Agreement we also agreed to pay:

- Global Capital Advisors, LLC (**Adviser**), GCA Strategic's adviser, out of pocket fees of $15,000; and
- Equinox Securities, Inc., a private investment firm, 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% (in this case, 67,000 shares) of the number of shares subject to the GCA Warrants at the same exercise price as set forth in the GCA Warrants ($1.50 per share) in consideration of its efforts in securing, on behalf of the Company, the financing with GCA Strategic. The Placement Warrants have a term of five years.

Registration of Conversion Shares and Warrant Shares

We have agreed to register the shares issuable upon conversion of the Convertible Note (the **Conversion Shares**) and upon exercise of the GCA Warrants (the **Warrant Shares**) on the terms set forth in the Registration Rights Agreement and herein.

Restrictions on Financings

From the Closing Date and continuing until 180 days following the date on which the Registration Statement (as defined in the Securities Purchase Agreement) becomes effective, we have agreed not to issue any of our equity securities (or securities convertible into or exchangeable or exercisable for equity securities (or derivative securities) on terms that allow a holder thereof to acquire such equity securities at a discount to the market price of the common stock at the time of issuance or, in the case of derivative securities, at a conversion price based on any formula (other than standard anti-dilution provisions) based on the market price on a date later than the date of issuance which is below the market price on the date of

issuance other than (i) borrowings under conventional credit facilities existing as of the Closing Date, (ii) stock issued or credit facilities to be established in connection with acquisitions, (iii) equity securities or derivative securities in connection with employee and director stock option and stock purchase plans, (iv) employee and director stock option and stock purchase plans, and (v) securities issued under the Convertible Note or GCA Warrants.

Notwithstanding the foregoing, the Company may enter into the following types of transactions: "permanent financing" transactions, which would include any form of debt or equity financing; (2) "project financing" transactions which provide for the issuance of non-convertible debt instruments in connection with the operation of the Company s business as presently conducted or as proposed to be conducted; and (3) an underwritten offering of the Company s Common Shares, provided that such offering provides for the registration of the Conversion Shares if there is not an effective registration statement registering the Conversion Shares. Until such time as all of the Convertible Note have been either redeemed or converted into Conversion Shares in full, the Company will not issue any of its equity securities (or derivative securities), unless any shares of Common Stock issued or issuable in connection therewith are restricted securities.

Limitation on Sales by Officers and Employee Directors

For a period of 180 days following the date the Registration Statement is declared effective by the Commission, none of our executive officers or employee directors may, individually, sell or otherwise dispose of (other than by reason of death or disability) to any Person an amount of Common Stock greater than that allowed by Rule 144, promulgated under the Securities Act: provided however, that the foregoing restriction, does not apply (i) once the outstanding principal balance of the Convertible Note is less than fifteen percent (15%) of the original face amount of the Convertible Note; or (ii) the volume weighted average price of the our common stock equals or exceeds $2.50 and average volume traded equals or exceeds 250,000 shares for 10 consecutive trading days.

Liquidated Damages

We have agreed to pay liquidated damages in the event that either the Conversion Shares or Warrant Shares are not delivered in accordance with the terms of the Securities Purchase Agreement or if the Registration Statement is not filed or declared effective within the time periods specified in the Registration Rights Agreement.

Short Sales

Under the terms of the Securities Purchase Agreement, GCA Strategic agreed not to effect, or cause any affiliate or associate to effect, a short sale of Company's common stock.

The Convertible Note

The Convertible Note was issued on May 11, 2007 and the purchase price of the Convertible Note was $2,125,000 (eighty-five per cent of the principal amount of the Convertible Note). The Convertible Note does not bear interest except upon an event of default, at which time interest shall accrue at the rate of 18% per annum.

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, or the five trading days immediately prior to the date of notice of conversion. The number of shares issuable upon conversion of the Convertible Note is indeterminate.

Prepayment of the Convertible Note

For so long as the Company is not in default and the Company is not in receipt of a notice of conversion from the holder of the Convertible Note, the Company may, at its option, prepay, in whole or in part, this Convertible Note for a pre-payment price (the **Prepayment Price**) equal to the greater of (A) the outstanding principal amount of the Convertible Note plus all accrued and unpaid interest if any, and any outstanding liquidated damages, if any, and (B)(x) the number of shares of common stock into which this Convertible Note is then convertible, times (y) the volume weighted average price, as reported by Bloomberg L.P., of the Company s common stock for the five (5) trading days immediately preceding the date that this Convertible Note is noticed for prepayment, plus accrued and unpaid interest.

Redemption of the Convertible Note

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

Number of Shares Issuable Under the Convertible Note

There is no limit to the number of shares that we may be required to issue upon conversion of the Convertible Note as it is dependent upon our share price, which varies from day to day. This could cause significant downward pressure on the price of our common stock. The following is an example of the amount of shares of our common stock issuable upon conversion of the entire $2,500,000 principal amount of the Convertible Note, based on market prices assumed to be 25%, 50% and 75% below, and 125% and 150% above, the conversion price in effect on May 11, 2007 (95% of the volume weighted average prices, as reported on Bloomberg, L.P. for the five (5) trading days immediately prior to May 11, 2007):

	Price Per Share	Number Of Shares	Percentage of Issued and Outstanding(1)
Conversion Price on May 11, 2007	$1.125	2,222,222	2.9%
150%	$1.687	1,481,921	2.0%
125%	$1.406	1,778,094	2.4%
75%	$0.844	2,962,085	3.9%
50%	$0.563	4,440,497	5.7%
25%	$0.281	8,896,797	10.8%

(1) Based upon 73,659,863 shares of common stock outstanding as of May 11, 2007. Although the Convertible Note contains provisions that limit the stockownership of the holder of the Convertible Note to 4.9%, (except under certain specified conditions) the percentages set forth in the table reflect the percentage of shares that may be issued to the holders in the aggregate.

Conversion Limitation

GCA Strategic has contractually agreed to restrict its ability to convert the Convertible Note and GCA Warrants and receive shares of our common stock such that the number of shares of our common stock held by them and their affiliates after such conversion may not (except under certain limited circumstances) exceed 4.9% of the then issued and outstanding shares of our common stock.

Default

An Event of Default occurs if we:

(a)

Fail to pay or repay when due, all or any part of the principal on any of the Convertible Note;

(b)

Fail to pay (i) within five (5) Business Days of the due date thereof any interest on any Convertible Note or (ii) within five (5) Business Days following the delivery of notice to the Company of any fees or any other amount payable (not otherwise referred to in (a) above or this clause (b)) by the Company under the Securities Purchase Agreement or any other Transaction Agreement;

(c)

failure by the Company to timely comply with the requirements of Section 7.11 or 10.1 hereof, which failure is not cured within five (5) Business Days of such failure;

(d)

failure on the part of the Company to observe or perform the covenants contained in the Securities Purchase Agreement or any other Transaction Agreement;

(e)

generally if the trading in of our common stock shall have been suspended;

(f)

the Registration Statement shall not have been declared effective by the Commission by the Required Effectiveness Date which results in the our incurring liquidated damages or a default fee for a period in excess of 10 days;

(g)

if voluntary or involuntary bankruptcy proceedings are commenced;

(h)

if we default under any provision (including payment) or any agreement in excess of $100,000, which has not been cured within any applicable period of grace associated therewith;

(i)

if judgments or orders for the payment of money which in the aggregate at any one time exceed $100,000 and are not covered by insurance have been rendered against the Company or any Subsidiary by a court of competent jurisdiction and such judgments or orders shall continue unsatisfied and unstayed for a period of 60 days; or

(j)

if any representation, warranty, certification or statement made by us in any Transaction Agreement or which is contained in any certificate, document or financial or other statement furnished at any time under or in connection with any Transaction Agreement shall prove to have been untrue in any material respect when made.

Registration

The Company is required to file, within 45 days (the "**Filing Date**") of the May 11, 2007 (the

Closing Date), a Registration Statement (the "**Registration Statement**") to register the resale of the common shares issuable under the conversion of the Convertible Note by GCA Strategic and the common shares issuable upon exercise of the GCA Warrants. The Company will use its best efforts to cause the Registration Statement to become effective (the **"Effective Date"**) no later than 120 days following the Closing Date. If the Registration Statement is not timely filed, the Company will pay GCA Strategic liquidated damages in the amount of 1% of the principal amount of the then outstanding balance due under the Convertible Note for each 30-day period, prorated, until the Registration Statement is filed. If the Registration Statement is not declared effective within such 120 day period, the Company will pay GCA Strategic liquidated damages in the amount of 2% of the principal amount of the then outstanding balance of the Convertible Note for each 30-day period, prorated, until the Registration Statement is declared effective. In the event the Company fails to obtain an effective Registration Statement by the 180th day following the Closing Date, GCA Strategic shall have the right to require the Company to redeem the Convertible Note at the Redemption Price.

Potential Profit

Potential Profit Under the Convertible Note

The following table discloses the total possible profit selling stockholders could realize as a result of the conversion discount for the securities underlying the Convertible Note.

Market Price[1]	Conversion Price [2]	Shares Underlying Convertible Notes[3]	Combined Market Price of Shares [4]	Total Conversion Price[5]	Total Possible Discount to Market Price[6]
$1.330	$1.125	2,222,222	$2,955,555	$2,500,000	$455,555

(1)

Market price per share of our common stock on the Closing Date (May 11, 2007).

(2)

The conversion price per share of our common stock underlying the Convertible Note on the Closing Date is calculated as 95% of the trading volume weighted average price of $1.184, as reported by Bloomberg LP, for the five trading days immediately prior to the Closing Date.

(3)

Total number of shares of common stock underlying the Notes assuming full conversion as of the

Closing Date. Since the conversion price of the Convertible Note may fluctuate as market prices fluctuate, the number of shares that may be issued upon conversion of the Convertible Note will also fluctuate.

(4)

Total market value of shares of common stock underlying the Convertible Note assuming full conversion as of the Closing Date based on the market price on the Closing Date.

(5)

Total value of shares of common stock underlying the Convertible Note assuming full conversion of the Convertible Note as of the Closing Date based on the conversion price.

(6)

Discount to market price calculated by subtracting the total conversion price (column 5) from the combined market price (column 4).

Prior Securities Transactions with Selling Stockholders

We have not engaged in any prior securities transactions with the selling stockholders, any affiliates of the selling stockholders, or any person with whom any selling stockholder has a contractual relationship regarding the transaction (or any predecessors of those persons).

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RISK FACTORS

You should carefully consider the risks described below before purchasing shares of our common stock. Our most significant risks and uncertainties are described below; however, they are not the only risks we face. If any of the following risks actually occur, our business, financial condition, or results or operations could be materially adversely affected, the trading of our common stock could decline, and you may lose all or part of your investment therein. You should acquire shares of our common stock only if you can afford to lose your entire 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 $4,654,499, $2,813,602 and, $1,435,613, respectively, during the past three fiscal years of operation. As a result, at December 31, 2006, we had an accumulated deficit of $11,215,872. We had an accumulated deficit of $11,954,852 at March 31, 2007. We had no revenues during the last five fiscal years and we do not expect to generate revenues from our operations for the foreseeable future. Our profitability will require the successful completion of our sponsored research, development efforts and the subsequent commercialization of our products, if any, derived from our sponsored research and development activities regarding our cell based influenza vaccine production technology, artificial liver device, and in-vitro toxicology testing methodologies. No assurances can be given when this will occur or that we will ever be profitable.

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

From inception through March 31, 2007, expenditures for our advertising and investor relations aggregated $3,253,479 or approximately 27% of total expenditures as compared to total research and development expenses during the same period of $878,376 or approximately 7% of total expenditures. We expect to use a portion of the proceeds, if any, that we receive from GCA Strategic, for our advertising and investor relations program. **Please refer to Use of Proceeds and Business-Competition.** If we continue to expend funds in such a disproportionate manner we may not have sufficient capital for the completion of our obligations the sponsored research agreement with MSU or the CRADA with the USDA or for the acquisition and development of new technologies. This would have an adverse affect on our operations and potential profitability, in which case we may need to substantially curtail or cease our research and development activities.

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

We currently do not have any commercialized products or any significant source of revenue. We have invested substantially all of our time and resources over the last three years in identification, research and development of technologies and cell based products vaccine production, and for liver toxicity detection and the treatment of various forms of liver dysfunction and disease. The technologies, which are the subject of our ongoing sponsored research programs, will require additional development, clinical evaluation, regulatory approval, significant marketing efforts and substantial additional investment before they can provide us with any revenue. We cannot currently estimate with any accuracy

the amount of these funds because it may vary significantly depending on the results of our current sponsored research and development activities, product testing, costs of acquiring licenses, changes in the focus and direction of our research and development programs, competitive and technological advances, the cost of filing, prosecuting, defending and enforcing patent claims, the regulatory process, manufacturing, marketing and other costs associated with the commercialization of products following receipt of approval from regulatory bodies and other factors.

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

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

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

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

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

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

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

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

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

Our independent auditors have added an explanatory paragraph to their audit opinion issued in connection with the financial statements for the years ended December 31, 2006, 2005 and 2004, relative to our ability to continue as a going concern. Our ability to obtain additional funding will determine our ability to continue as a going concern. Our financial statements do not include any adjustments that might result from the outcome of this uncertainty.

At March 31, 2007, we had a working capital deficit of $1,190,191. We have an operating cash flow deficit of $322,027 for the three months ended March 31, 2007, and have sustained operating cash flow deficits of $1,422,509 in 2006, $1,332,440 in 2005 and $1,364,209 in 2004. Although we believe that we have sufficient financial resources and commitments to sustain our current level of research and development activities through the end of December 2007, any expansion, acceleration or continuation (beyond December 2007) of such activities will require additional capital which may not be available to us, if at all, on terms and conditions that we find acceptable.

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

As of June 8, 2007, we owed an aggregate of $877,800 to Harmel S. Rayat, our secretary, treasurer, chief financial officer, director and majority stockholder, pursuant to his $1,500,000 loan commitment to us. On January 18, 2006, we agreed, in consideration of Mr. Rayat s oral undertaking to increase his loan commitment to us from $1,500,000 to $1,600,000, to convert the loans to demand loans.

The loans are due upon the receipt of the written demand from Mr. Rayat. The loans bear interest at the rate of 8.50% per annum. We do not currently have sufficient capital on hand to repay these loans. We may repay these loans, at any time, without penalty. Under the terms of the Securities Purchase Agreement, we may not use the proceeds we received from the issuance of the Convertible Note to repay these loans.

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

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

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

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

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

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

medical products. Compliance with such continued regulatory oversight may prove to be costly and may limit our ability to attain profitable operations.

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

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

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

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

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

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

We rely primarily on the USDA s Agricultural Research Service and MSU to conduct, monitor and assess our sponsored research. We will have no control over the specifics of and possible direction that the research may take.

Accordingly, there can be no assurance that the USDA s Agricultural Research Service or MSU will conduct our sponsored research in a manner that will lead to the commercial development of any products.

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

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

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

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

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

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

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

any, derived from our research and development efforts, even if approved.

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

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

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

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

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

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

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

Our sponsored research and development programs do not generally involve the handling of potentially harmful biological materials or hazardous materials, but they may occasionally do so. The USDA s Agricultural Research Service and MSU are subject to federal, state and local laws and regulations governing the use, handling, storage and disposal of hazardous and biological materials. If violations of environmental, health and safety laws occur, we could

be held liable for damages, penalties and costs of remedial actions. These expenses or this liability could have a significant negative impact on our business, financial condition and results of operations. We may violate environmental, health and safety laws in the future as a result of human error, equipment failure or other causes. Environmental laws could become more stringent over time, imposing greater compliance costs and increasing risks and penalties associated with violations. We may be subject to potentially conflicting and changing regulatory agendas of political, business and environmental groups. Changes to or restrictions on permitting requirements or processes, hazardous or biological material storage or handling might require an unplanned capital investment or relocation. Failure to comply with new or existing laws or regulations could harm our business, financial condition and results of operations.

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

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

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

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

Competition for qualified employees among companies in the biotechnology industry is intense. Our future success depends upon our ability to attract, retain and motivate highly skilled employees. Attracting desirable employees will require us to offer competitive compensation packages, including possible stock options. In order to successfully commercialize the results of our ongoing research and development efforts or products, if any, derived from our research program we must substantially expand our personnel, particularly in the areas of clinical trial management, regulatory affairs, business development and marketing. There can be no assurance that we will be successful in hiring or retaining qualified personnel. Managing the integration of new personnel and our growth generally could pose significant risks to our development and progress. The addition of such personnel may result in significant changes in our utilization of cash resources and our development schedule.

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

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

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

These companies enjoy numerous competitive advantages over us, including:

- significantly greater name recognition;

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

- established distribution networks;

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

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

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

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

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

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

Any infringement or misappropriation claim could cause us to incur significant costs, could place significant strain on our financial resources, divert management s attention from our business and harm our reputation. If the relevant patents were upheld as valid and enforceable and we were found to infringe, we could be prohibited from continuing

our research and development activities and from marketing or selling products, if any, derived from our sponsored research and development efforts unless we could obtain licenses to use the technology covered by the patent or are able to design around the patent. We may be unable to obtain a license on terms acceptable to us, if at all, and we may not be able to commercialize any products. A court could also order us to pay compensatory damages for such infringement, plus prejudgment interest and could, in addition, treble the compensatory damages and award attorney fees. These damages could be substantial and could harm our reputation, business, financial condition and operating results. Depending on the nature of the relief ordered by the court, we could become liable for additional damages to third parties.

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

Because our activities involve the researching, developing and testing of new technologies; and in

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

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

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

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

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

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

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

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

RISKS RELATED TO THE GCA STRATEGIC TRANSACTION AND THE OFFERING

The Sale Of Our Common Stock To GCA Strategic Upon Conversion of the Convertible Note May Cause Dilution And The Sale Of The Shares Of Common Stock Acquired By GCA Strategic Could Cause The Price Of Our Common Stock To Decline.

The sale of shares pursuant to our Securities Purchase Agreement with GCA Strategic or any other future equity financing transaction will have a dilutive impact on our stockholders. As a result, our net income or loss per share could decrease in future periods, and the market price of our common stock could decline.

The conversion price for the common stock to be issued to GCA Strategic pursuant to the conversion provisions of the Convertible Note will fluctuate based on the price of our common stock. All shares in this offering are freely tradable. Because the price at which the Convertible Note may be converted is variable, the lower our stock price is, the more shares of common stock we will have to issue upon conversion of the Convertible Note. If our stock price were lower, then our existing stockholders would experience greater dilution. We cannot predict the actual number of shares of common stock that will be issued pursuant to the agreement with GCA Strategic or any other future equity financing transaction, in part, because the purchase price of the shares will fluctuate based on prevailing market conditions and we do not know the exact amount of funds we will need. **Please refer to the section of this prospectus entitled Dilution and The GCA Strategic Transaction.**

The following is an example of the amount of shares of our common stock issuable upon conversion of the entire $2,500,000 principal amount of the Convertible Note, based on market prices assumed to be 25%, 50% and 75% below the conversion price in effect on May 11, 2007 (95% of the volume weighted average prices, as reported on Bloomberg, L.P. for the five (5) trading days immediately prior to May 11, 2007):

	Price Per Share	Number Of Shares	Percentage of Issued and Outstanding(1)
Conversion Price on May 11, 2007	$1.125	2,222,222	2.9%
75%	$0.844	2,962,085	3.9%
50%	$0.563	4,440,497	5.7%
25%	$0.281	8,896,797	10.8%

(1) Based upon 73,659,863 shares of common stock outstanding as of May 11, 2007. Although the Convertible Note contains provisions that limit the stockownership of the holder of the Convertible Note to 4.9% (except under certain specified conditions), the percentages set forth in the table reflect the percentage of shares that may be issued to the

holders in the aggregate.

GCA Strategic may exercise its conversion privilege in whole or in part, or not at all; and, if it elects to exercise its conversion privilege, it may sell none, some or all of the shares of common stock purchased from us at any time. Depending upon market liquidity at the time, a sale of shares under this offering at any given time could cause the trading price of our common stock to decline. The sale of a substantial number of shares of our common stock under this offering, or anticipation of such sales, could make it more difficult for us to sell equity or equity-related securities in the future at a time and at a price that we might otherwise wish to effect sales.

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

Our common shares have historically been sporadically or "thinly-traded" on the OTCBB, meaning that the number of persons interested in purchasing our common shares at or near ask prices at any given time may be relatively small or non-existent. As of June 8, 2007 our average trading volume per day for the prior three months was approximately 252,010 shares a day with a high of 2,524,800 shares traded and a low of 3,800 shares traded. This situation is attributable to a number of factors, including the fact that we are a small company which is relatively unknown to stock analysts, stock brokers, institutional investors and others in the investment community that generate or influence sales volume, and that even if we came to the attention of such persons, they tend to be risk-averse and would be reluctant to follow an unproven company such as ours or purchase or recommend the purchase of our shares until such time as we became more seasoned and viable. As a consequence, there may be periods of several days or more when trading activity in our shares is minimal or non-existent, as compared to a seasoned issuer which has a large and steady volume of trading activity that will generally support continuous sales without an adverse effect on share price. We cannot give you any assurance that a broader or more active public trading market for our common shares will develop or be sustained, or that current trading levels will be sustained.

GCA Strategic's exercise of its conversion privilege under the Convertible Note and sale into the market of shares acquired by it upon such conversion could cause our common stock price to decline due to the additional shares available in the market, particularly in light of the relatively thin trading volume of our common stock. Using the closing price on May 11, 2007 of $1.33 as an example, if GCA Strategic converted in full, based on the then effective conversion price, it would be issued approximately 2,222,222 shares. The market price of our common stock could decline given our minimal average trading volume compared to the number of shares potentially issuable to GCA Strategic and the voting power and value of your investment would be subject to continual dilution if GCA Strategic purchases the shares and resells those shares into the market, although there is no obligation for GCA Strategic to sell such shares. Any adverse affect on the market price of our common stock would increase the number of shares issuable to GCA Strategic on any subsequent conversion.

Contractual beneficial ownership limitations prohibit GCA Strategic, together with its affiliates, from beneficially owning more than 4.9% of our outstanding common stock. This 4.9% limitation does not prevent GCA Strategic, under certain circumstances, from converting all or a portion of the Convertible Note or exercising the Warrant and then reselling the shares acquired in stages over time where GCA Strategic and its affiliates do not, at any given time, beneficially own shares in excess of the 4.9% limitation. Consequently, these limitations will not necessarily prevent substantial dilution of the voting power and value of your investment.

We May Not Be Able To Repay The Convertible Note When Due Or Upon A Mandatory Redemption.

The Convertible Note is due May 11, 2009. In addition, prior to that date we may be required to redeem the Convertible Note based upon various pricing formulas upon the occurrence of Events of Defaults. There is no assurance that we will have or be able to obtain sufficient funds to repay or redeem the Convertible Note. Even if we do have the funds, we may be required to substantial curtail or cease our sponsored research and development

activities if we are required to divert funds to the repayment and/or the redemption of the Convertible Note.

RISKS RELATED TO OUR COMMON STOCK

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

We have previously issued a total of 73,659,863 shares of common stock, of which 48,463,056 are eligible for resale under Rule 144 of the Securities Act. In addition, we have also registered a substantial number of shares of common stock that are issuable upon the exercise of options. If holders of options choose to exercise their purchase rights and sell shares of common stock in the public market or if the selling stockholders whose shares are being registered pursuant to this prospectus sell or attempt to publicly sell such shares all at once or in a short time period, the prevailing market price for our common stock may decline. Future public sales of shares of common stock may adversely affect the market price of our common stock or our future ability to raise capital by offering equity securities.

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

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

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

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

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

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

As of June 8, 2007, Mr. Rayat beneficially owned 44,213,056 shares, constituting approximately 60% of our outstanding common stock. Even if all of these shares offered hereby are sold, Mr. Rayat would still own approximately 56% of our then issued and outstanding shares. Accordingly, he is able to substantially influence virtually all matters requiring approval by our stockholders, including the election of directors. Our Articles of Incorporation do not provide for cumulative voting in the election of directors and, therefore, although they are able to vote, our other stockholders should not expect to be able to elect any directors to our board of directors.

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

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

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

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

FORWARD-LOOKING STATEMENTS

This prospectus contains forward-looking statements. Such forward-looking statements include statements regarding, among other things, (a) our projected sales and profitability, (b) our growth strategies, (c) anticipated trends in our industry, (d) our future financing plans, and (e) our anticipated needs for working capital. Forward-looking statements, which involve assumptions and describe our future plans, strategies, and expectations, are generally identifiable by use of the words may, will, should, expect, anticipate, estimate, believe, intend, or proj negative of these words or other variations on these words or comparable terminology. This information may involve known and unknown risks, uncertainties, and other factors that may cause our actual results, performance, or achievements to be materially different from the future results, performance, or achievements expressed or implied by any forward-looking statements. These statements may be found under Management s Discussion and Analysis of Financial Condition and Results of Operations and Business, 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.

USE OF PROCEEDS

This prospectus relates to shares of our common stock that may be offered and sold from time to time by the selling stockholders. We are not selling any securities; accordingly, we will receive no proceeds from the sale of shares of common stock in this offering. However, we may receive up to $1,105,500 in proceeds from the exercise of the GCA Warrants and Placement Warrants. However, no assurance can be given that we will receive all or a significant portion of the maximum $1,105,500. Any proceeds from the exercise of the Warrants will be used for general working capital purposes. **Please refer to the section of this prospectus entitled The GCA Strategic Transaction.**

MARKET FOR OUR COMMON STOCK

Our common stock trades on the Over-the-Counter Bulletin Board under the trading symbol HPLF. The quotations shown reflect inter-dealer prices, without retail mark-up, markdown or commission and may not necessarily represent actual transactions. Our high and low bid prices by quarter during fiscal years 2007, 2006, 2005, and 2004, are as follows:

High

Low

April 1, 2007 June 8, 2007

$1.43

$0.57

First Quarter 2007

$0.69

$0.45

Fourth Quarter 2006

$0.81

$0.54

Third Quarter 2006

$1.28

$0.61

Second Quarter 2006

$1.03

$0.62

First Quarter 2006

$1.62

$0.98

Fourth Quarter 2005

$2.20

$1.35

Third Quarter 2005

$2.10

$1.40

Second Quarter 2005

$3.12

$1.80

First Quarter 2005

$4.97

$2.38

Fourth Quarter 2004

$5.80

$2.06

Third Quarter 2004

$2.91

$1.95

Second Quarter 2004

$2.99

$1.47

First Quarter 2004

$3.62

$2.55

On June 8, 2007, the closing price of our common stock as reported on the Over-the-Counter Bulletin Board was $0.93 per share. On June 8, 2007, we had 59 stockholders of record holding our common stock. 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.

Securities Authorized for Issuance Under Equity Compensation Plans

We have reserved an aggregate of 40,000,000 shares of our common stock for issuance pursuant to our 2001 Stock Option Plan. The following table represents the number of shares issuable upon exercise and reserved for future issuance under this plan as of June 8, 2007.

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			

2,000,000*

$0.52

35,598,000

Equity compensation plans not

approved by security holders

Total

2,000,000

$0.52

35,598,000

* * As of June 8, 2007, none of these options had vested.

DIVIDEND POLICY

We have never declared or paid dividends on our common stock. Our dividend practices are determined by our board of directors and may be changed from time to time. We will base any issuance of dividends upon our earnings (if any), financial condition, capital requirements, acquisition strategies, and other factors considered important by our board of directors. Florida law and our articles of incorporation do not require our board of directors to declare dividends on our common stock. We expect to retain any earnings generated by our operations for the development and expansion of our business and do not anticipate paying any dividends to our common stockholders for the foreseeable future.

SELECTED FINANCIAL INFORMATION

The following summary statement of operations are derived from our financial statements for the three months ended March 31, 2007 and years ended December 31, 2006, 2005, 2004, 2003 and 2002 that were filed with the U.S. Securities & Exchange Commission on our Quarterly and Annual Reports on Form 10-Q, 10-K or Form 10-KSB, as applicable. This information should be read in conjunction with the audited and unaudited consolidated financial statements and the related notes.

FIVE-YEAR STATEMENT OF OPERATIONS

	Years Ended December 31					Three Months Ended March 31,
	2002	2003	2004	2005	2006	2007
Revenues	$-	$-	$-	$-	$-	$-
Operating Expenses:						
Management fees and consulting fees Related party	144,600	28,500	9,500	29,925	36,166	12,087
Investor Relations	119,500	960,003	1,016,916	696,282	451,373	9,405
Stock based compensation expense	-	-	-	-	2,607,302	469,762
Other operating expense	21,823	73,767	259,572	409,371	764,162	219,649
Research and Development	91,500	41,400	151,546	261,691	302,618	29,621
Stock offering costs	-	-	-	1,420,796	505,917	-
Total Operating Expenses	377,423	1,103,670	1,437,534	2,818,065	4,667,538	740,524
Net Income (Loss) from Operations	(377,423)	(1,103,670)	(1,437,534)	(2,818,065)	(4,667,538)	(740,524)
Other Income						
Interest Income	1,951	947	1,921	4,463	13,039	1,544
Net Loss Available to Common Stockholders	($375,472)	($1,102,723)	($1,435,613)	($2,813,602)	($4,654,499)	($738,980)

Basic and Diluted Loss Per Common Share	($0.01)	($0.02)	($0.02)	($0.04)	($0.07)	($0.01)
Weighted Average Common Shares Outstanding	52,723,277	57,817,305	64,610,777	69,314,822	71,449,018	72,883,097

SUPPLEMENTARY FINANCIAL INFORMATION

Certain quarterly financial information is set forth below.

	March 31, 2004	June 30, 2004	September 30, 2004	December 31, 2004
Revenues	$0	$0	$0	$0
Gross Profit	$0	$0	$0	$0
Net Income (Loss)	($96,164)	$(142,767)	($195,246)	($1,001,436)
Net Income (Loss) Per Share (Basic)	($0.00)	($0.00)	($0.00)	($0.02)

	March 31, 2005	June 30, 2005	September 30, 2005	December 31, 2005
Revenues	$0	$0	$0	$0
Gross Profit	$0	$0	$0	$0
Net Income (Loss)	($677,015)	($292,098)	($273,655)	($1,570,834)
Net Income (Loss) Per Share (Basic)	($0.01)	($0.00)	($0.00)	($0.02)

	March 31, 2006	June 30, 2006	September 30, 2006	December 31, 2006
Revenues	$0	$0	$0	$0
Gross Profit	$0	$0	$0	$0
Net Income (Loss)	($732,439)	($1,437,396)	($1,441,946)	($1,042,718)
Net Income (Loss) Per Share (Basic)	($0.01)	($0.02)	($0.02)	($0.01)

	March 31, 2007
Revenues	$0
Gross Profit	$0
Net Income (Loss)	($738,980)

Net Income (Loss) Per Share (Basic)	($0.01)

MANAGEMENT S 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, Forward Looking Statements, and elsewhere in this prospectus.

Overview

We are a development stage biotechnology company focused on the identification and development of cell-based technologies and products. We currently do not directly conduct any of our research and development activities. Rather, once a technology has been identified, we fund the research and development activities relating to the technology with the intention of ultimately, if warranted, licensing, commercializing and marketing the subject technology.

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

Currently, we are concentrating our sponsored research and development efforts on developing a cell-supported artificial liver device, in-vitro toxicology and pre-clinical drug testing platforms, and a cell-based vaccine production system.

Artificial Liver Device

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

In-Vitro Toxicology Testing

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

element in developing in-vitro toxicological and pre-clinical drug testing platforms that could more accurately determine the potential toxicity and metabolism of new pharmacological compounds in the liver.

Cell Based Vaccine Production

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

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

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

Critical Accounting Policies

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

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

accounting policies to be critical to the judgments and estimates used in the preparation of our financial statements.

General and Administrative Expenses

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

Research and Development Cost*s*

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

Results of Operations

We have yet to establish any history of profitable operations. We have not generated any revenues from operations during the past 5 years and do not expect to generate any revenues for the foreseeable future. We have incurred annual operating losses of $4,654,499, $2,813,602, and $1,435,613 respectively, during the past three fiscal years of operation. As a result, at December 31, 2006, we had an accumulated deficit of $11,215,872.

Our profitability will require the successful completion of our research and development programs, and the subsequent commercialization of the results or of products derived from such research and development efforts. No assurances can be given when this will occur or that we will ever be profitable.

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

Three Months Ended March 31, 2007, 2006 and 2005 and From Inception (October 21, 1997) to March 31, 2007

	Three Months Ended March 31,			From Inception (October 21, 1997)
	2007	2006	2005	to March 31, 2007
Revenues	$0	$0	$0	$0
Operating Expenses:				
Management fees and consulting fees Related party	$12,087	$8,525	5,953	987,492
Investor Relations	9,405	3,125	527,948	3,253,479
Other operating expense	689,411	656,443	79,086	6,886,886
Research and Development	29,621	65,423	65,423	878,376
Total Operating Expenses	740,524	733,516	678,410	12,006,233

Income (Loss) from Operations	(740,524)	(733,516)	(678,410)	(12,006,233)
Other Income				
Interest Income	1,544	1,077	1,395	51,381
Net Loss Available to Common Stockholders	($738,980)	($732,439)	($677,015)	($11,954,852)
Basic and Diluted Loss Per Common Share	($0.01)	($0.01)	($0.01)	
Weighted Average Common Shares Outstanding	72,883,097	70,428,454	68,014,499	

Three Months Ended March 31, 2007 and 2006

We had no revenues in the three months ended March 31, 2007 and 2006. We incurred operating losses of $738,980 and $732,439 for the three months ended March 31, 2007 and March 31, 2006, respectively. As a result, at March 31, 2007, we had an accumulated deficit of $11,954,852. Our expenses were essentially unchanged to $740,524 in the three months ended March 31, 2007, from $733,516 in the same period in 2006. Interest income increased 43% to $1,544 in the three months ended March 31, 2007, from $1,077 during the same period in 2006,

reflecting higher than average cash balances maintained during most of the first quarterly period in 2007.

Three Months Ended March 31, 2006 and 2005

We had no revenues in the three months ended March 31, 2006 and 2005. Our general and administrative expenses increased 8% to $733,516 in the three months ended March 31, 2006, from $678,410 in the same period in 2005.

Interest income decreased 23% to $1,077 in the three months ended March 31, 2006, from $1,395 during the same period in 2005, reflecting lower than average cash balances maintained during most of the first quarterly period in 2006.

We incurred net losses of $732,439 and $677,015 during the three months ended March 31, 2006 and in the same period in 2005, respectively.

Years Ended December 31, 2006 and 2005

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

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

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

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

Our operations in 2006 were funded from net proceeds through the common stock purchase agreement with Fusion Capital in the amount of $1,719,996 and $12,250 from the proceeds from the sale of our common stock upon exercise of outstanding options. In addition, at December 31, 2006, we had a net operating loss carry forward for federal income tax purposes of approximately $4,947,000, which expires at various dates through 2026. The extent of any potential tax benefits to us from the operating loss carry forward is not presently ascertainable.

Years Ended December 31, 2005 and 2004

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

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

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

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

Our net loss in 2005 increased 96% to $2,813,602, from $1,435,613 in 2004. This increase was primarily attributable to the stock offering expense that incurred in the Fusion Capital transaction with the issuance of signing shares and commitment shares.

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

Liquidity and Capital Resources

We had cash and cash equivalents of $252,887, $107,263 and $613,523 as of December 31, 2006, 2005 and 2004, respectively. The cash and cash equivalents as of March 31, 2007 and 2006 were $88,027 and $215,246, respectively.

Three Months Ended March 31, 2007 and 2006

Our operating activities use of cash for the twelve months ended December 31, 2006, 2005 and 2004, was $1,422,509, $1,332,440 and $1,364,209, respectively. Our operating activities use of cash for the three months ended March 31, 2007 and 2006 was $322,027 and $267,017, respectively. As at March 31, 2007, the Company had a cash balance of $88,027. We financed our operations primarily from cash on hand, through loans from stockholders, proceeds from stock option and warrant exercises, and through the common stock purchase agreement with Fusion Capital, during the three month period ending March 31, 2007.

Net cash flows used in by operating activities was $322,027 for the three month period ending March 31, 2007, compared to net cash flows used of $267,017 for the same period in 2006. Net cash provided by financing activities was $160,001 for the three month period ending March 31, 2007 compared to $375,000 for the same period in 2006. The Company has financed its operations primarily from cash on hand, through loans from stockholders, proceeds from stock option and warrant exercises, and through the common stock purchase agreement with Fusion Capital.

As of March 31, 2007, Fusion Capital has purchased 2,536,611 shares of common stock of the Company for total proceeds of $1,879,997. At this time, except for our agreement with Fusion Capital, we have no agreements or understandings with any third party regarding any financings.

We have experienced losses during the last three fiscal years and expect to continue to incur losses for the foreseeable future. Since inception these losses have amounted to $11,954,852 on a cumulative basis through March 31, 2007.

Years Ended December 31, 2006 and 2005

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

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

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

At this time, except for our agreement with Fusion Capital, we have no agreements or understandings with

any third party regarding any financings.

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

Financing Source	**Year Ending December 31,**				
	2006	**2005**	**2004**	**2003**	**2002**
Loans Incurred	$0	$450,000	$1,000,000	$725,000	$0
Loans Repaid	$140,000	$300,000	$725,000	$0	$0
Exercise of Options	$12,250	$650,850	$1,341,620	$398,600	$0
Exercise of Warrants	$0	$31,250	$50,000	$182,500	$0
Common Stock Purchase Agreement	$1,719,996	$0	$0	$0	$0
Total	$1,592,246	$832,100	$1,666,620	$1,306,100	$0

Contractual Obligations

USDA Agricultural Research Service

As of June 8, 2007 we had the following contractual commitments (aggregating $807,828), to fund researchers and associated laboratory supplies, pursuant to our CRADA with the USDA's Agricultural Research Service, entered into on November 1, 2002, and amended on May 24, 2004:

Amount

Due Date

$65,422.80

on or before August 1, 2004 (paid);

$65,422.80

on or before November 1, 2004 (paid);

$65,422.80

on or before February 1, 2005 (paid);

$65,422.80

on or before May 1, 2005 (paid);

$65,422.80

on or before August 1, 2005 (paid);

$65,422.80

on or before November 1, 2005 (paid);

$65,422.80

on or before February 1, 2006 (paid);

$65,422.80

on or before May 1, 2006 (paid);

$65,422.80

on or before August 1, 2006 (paid);

$65,422.80

on or before November 1, 2006 (paid)

As a result of delays incurred in the employment of personnel, we reached an agreement in February of 2004 with the USDA s Agricultural Research Service to modify the foregoing schedule so as to delay the payment of the installments due in August and November of 2004 and thereafter until and unless funds are actually required. Consequently, in 2004 we made three payments consisting of two payments of $65,423 ($130,846 in the aggregate) and one payment of $20,700, under our CRADA. In 2005 we made three payments of $65,423, in 2006 we made three payments of $65,423 and in 2007 we made two payment of $65,423. We are in compliance with the modified payment schedule.

Michigan State University

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

As of June 8, 2007, total payments of $68,352 has been paid in relation to the project.

Notes Payable

Additionally, as of the date of this prospectus, we have the following loan repayment commitments to Mr. Harmel S. Rayat:

Date of Loan	Amount	Interest Rate	Amount Outstanding*
March 2, 2005	$677,800	8.5%	$814,647
December 5, 2005	$200,000	8.5%	$225,945

* Includes outstanding principle and accrued and unpaid interest hereon through May 31, 2007

The notes are due and payable upon the receipt of written demand from Mr. Rayat. **Please refer to the section of this prospectus entitled Certain Relationships and Related Transactions.** We do not currently have sufficient capital on hand to repay the loan. We have no understanding or agreements with Mr. Rayat regarding the repayment of these loans. We have the right to prepay these amounts without penalty.

Except for our CRADA and MSU commitments and our loan repayment obligations, we have no other material capital expenditures planned during fiscal 2007.

Recent Financings

On January 20, 2006, we entered in a Common Stock Purchase Agreement with Fusion Capital Fund II, LLC, pursuant to which we have the right to sell $25,000 of our shares to Fusion Capital per day unless our stock price equals or exceeds $1.00, in which case the daily amount may be increased under certain conditions as the price of our common stock increases. Fusion Capital did not have the right or the obligation to purchase any shares of our common stock on any trading days that the market price of our common stock is less than $0.50. We terminated the Common Stock Purchase Agreement with Fusion Capital on May 11, 2007. Prior to termination of the agreement we sold a total of 3,045,680 shares to Fusion Capital for gross proceeds of $2,214,998.21. The last sale date was April 25, 2007.

On May 11, 2007, we also entered into the Securities Purchase Agreement pursuant to which, among other things, we issued the Convertible Note to GCA Strategic; the aggregate purchase price was $2,125,000 (85% of the principal amount of the Convertible Note). Although we believe that we have sufficient cash on hand to satisfy our contractual commitments through December 31, 2007 we do not currently have sufficient cash on hand to sustain planned operating activities through the end of 2008. Our ability to continue as a going concern is substantially dependent upon future levels of funding from our funding sources, which are currently uncertain as to amount and timing.

At this time, except for our agreement with GCA Strategic, we have no agreements or understandings regarding any financings. The extent to which we will attempt to secure any future financing from GCA Strategic or any other source of funding will depend on a number of factors including, the prevailing market price of our common stock and the number of shares outstanding, progress we have made in our business, other opportunities we may wish to pursue, general economic conditions, our capital requirements at the time, and the financing options available to us at the time we are seeking any such financing.

Related Party Transactions

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

Off Balance Sheet Arrangements

We do not currently have, nor have we had, any relationships with unconsolidated entities or financial partnerships, such as entities often referred to as structured finance or special purpose entities, which would have been established for the purpose of facilitating off-balance sheet arrangements or other contractually narrow or limited purposes. In addition, we do not engage in trading activities involving non-exchange traded contracts. As such, we are not materially exposed to any financing, liquidity, market or credit risk that could arise if we had engaged in these relationships.

Qualitative and Quantitative Disclosures About Market Risk

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

New Accounting Pronouncements

There have been no pronouncements issued that are not yet effective that would have a material effect on these financial statements.

BUSINESS

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.

Overview

We were organized in 1997 under the name Zeta Corporation. On November 1, 2002, we entered into the CRADA with the USDA s Agriculture Research Service, which was amended on May 24, 2004. We changed our name to HepaLife Technologies, Inc. on April 17, 2003, to more accurately reflect our business. On July 15, 2006, we entered into a sponsored research agreement with Michigan State University.

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

Artificial Liver Device

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

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

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

In Vitro Toxicology and Drug Testing

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

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

According to FDA recommendations, all drugs and newly developed chemicals require rigorous toxicity testing before approval can be granted. Since the liver is the primary site of chemical detoxification as well as the tissue where many compounds are activated into highly toxic substances, much attention has been placed upon development of an in-vitro model liver system for drug testing. Currently available test systems utilize either cells isolated from rat, pig or human livers or use available tumor cell lines or proprietary modified tumor cell lines. Ultimately, these systems lack either stability, reproducibility (primary cell isolates) or the ability to fully represent the complete set of hepatic

functions (tumor cell lines). These drawbacks do not appear to exist with the PICM-19 cell line as these cells were naturally derived from porcine embryonic stem cells and have demonstrated functional stability in long term culture.

Cell-based Vaccine Production

A successful cell-culture based avian flu vaccine has the potential to reduce production time compared to traditional vaccine production methods and should allow rapid expansion of vaccine production in the face of a pandemic. Traditional production methods use embryonated hens' eggs, which require extensive planning for the millions of eggs necessary in the case of exponentially increasing demand. Additionally, risks associated with impurities in eggs (antibiotics and other viruses), which may cause sterility problems, and allergies against egg albumin, could be avoided.

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

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

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

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

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

Due to the "start up" nature of our business, we expect to incur losses as we continue conducting our ongoing sponsored research and product development programs. We will require additional funding to continue our research and product development programs, to conduct preclinical studies and clinical trials, for operating expenses, to pursue regulatory approvals for our product candidates, for the costs involved in filing and prosecuting patent applications and enforcing or defending patent claims, if any, for any possible acquisitions or new technologies, and we may require additional funding to establish manufacturing and marketing capabilities in the future. We may seek to access the public or private equity markets whenever conditions are favorable. We may also seek additional funding through strategic alliances and other financing mechanisms. We cannot assure you that adequate funding will be available on terms acceptable to us, if at all. If adequate funds are not available, we may be required to curtail significantly one or more of our research or development programs or obtain funds through arrangements with collaborators or others. This may require us to relinquish rights to certain of our technologies or product candidates. To the extent that we are unable to obtain third-party funding for such expenses, we expect that increased expenses will result in increased losses from operations. We cannot assure you that we will successfully develop our products under development or that our products, if successfully developed, will generate revenues sufficient to enable us to earn a profit.

Sponsored Research Agreements

USDA Agricultural Research Service

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

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

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

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

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

Ownership of Developed Technologies Under the CRADA

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

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

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

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

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

Michigan State University

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

Ownership of Developed Technologies under the Sponsored Research Agreement

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

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

Our Strategy

Our sponsored research, by way of a CRADA with the USDA, is focused on optimizing the hepatic functionality of the PICM-19 Cell Line, and subclones thereof, for use in the production of an artificial liver device for human patients with liver failure. The successful adaptation and application of an optimized PICM-19 Cell Line,

along with the development of an artificial liver device, would allow us to target the estimated 25 million Americans that are or have been afflicted with liver and biliary disease.

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

Assuming we succeed in our sponsored research and development efforts into the optimization of the PICM-19 Cell Line, the development of an artificial liver device incorporating the optimized PICM-19 Cell Line and in obtaining a license pursuant to our CRADA, we will explore a number of commercial opportunities, including, but not limited to: the outright sale of our technology, joint venture partnerships with health care companies, or our direct marketing and selling of the products, if any, derived from the sponsored research and development efforts.

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

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

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

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

Our Intended Markets

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

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

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

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the toxicological and pre-clinical drug testing market through the development of in-vitro toxicological and pre-clinical drug testing platforms.

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

If FDA and other approvals are ultimately obtained with respect to any product submitted by us in the future for approval, we expect to market and sell any such product through distribution, co-marketing, co-promotion or sublicensing arrangements with third parties.

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

The Need for Cell Based Influenza Vaccine Production Technologies

According to the National Institutes of Health, influenza infections over a ten-year period ending 2004, resulted in an average of 36,000 deaths and 114,000 hospitalizations per year in the United States alone. The World Health Organization estimates that the annual average number of deaths worldwide is approximately 500,000. Periodically, new influenza strains evolve with the capacity to cause pandemics. Recently, avian influenza (H5N1) has spread, resulting in more than 4,500 outbreaks in birds since 2003, and more than 306 cases of transmission to humans with a mortality rate of 60%, indicating the potential evolution of a pandemic influenza virus.

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

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

Cell culture is a robust technology which overcomes the shortcomings of egg-based vaccine production. Vaccine production can start as soon as the virus seed is available and can adapt fast to new virus strains. Accelerating the development of cell culture technology for influenza vaccine production and establishing a domestic production base to support vaccination demands is among the goals defined in the National Strategy for Pandemic Influenza issued by President George W. Bush in November 2005.

Liver Disease and the Need for an Artificial Liver Device

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

The National Institutes of Health has estimated that one quarter of Americans will suffer from a liver or biliary disease at some point in their lifetime. These findings have been corroborated by other health organizations which have indicated that an estimated 30 million Americans are or have been afflicted with liver or biliary diseases. According to the National Institutes of Health (NIH-NIDDK), it is estimated that expenses of approximately $10 billion annually are incurred in the treatment of liver disease and associated conditions. Based on published data, we believe that over $1.5 billion of this market represents the most acute patient population in urgent need of an artificial liver device. We are not aware of any negative reports, data or findings regarding the potential benefits of an effective artificial liver device.

Among those in greatest need, are the 6,441 Americans who underwent liver transplantation procedures in 2005 at a cost of $280,000 per surgery, notwithstanding pre- and post-operative expenses (American Liver Foundation); this market segment alone amounts to $1.80 billion per year.

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

Causes of liver disease and related conditions include:

Alcohol Abuse

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

Drug Induced Conditions

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

Hepatitis

According to publicly available statistical information, approximately 15-25% (upwards of 312,500 Americans) of the estimated 1.25 million chronically infected hepatitis B sufferers will die from chronic liver disease.

Globally, an estimated 350 million people are infected with hepatitis B, causing approximately 1,000,000 deaths per year.

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

Other Medical Conditions

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

For people with severe liver failure, orthotopic liver transplantation is the most prescribed and effective treatment therapy available today. At present, there are upwards of 17,000 adults and children medically approved and waiting for liver transplants in the United States. Unfortunately, there are approximately only 7,000 livers available for transplant annually. Due to a severe shortage of organ donors, the waiting time for potential liver recipients could be as long as two to three years, with 20-30% of these patients not surviving the waiting period.

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

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

The Need for Improved In Vitro Toxicology Testing

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

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

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

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 own. In contrast to our PICM-19 Cell Line, the cellular components of other artificial liver devices being developed to-date have been based on freshly isolated

porcine hepatocytes, cell lines established from human liver tumors, stem-cell-like cells prepared from fresh human adult liver tissue and human or pig liver cells transformed or immortalized by the addition of oncogenes (i.e., genes associated with cancer) through genetic engineering. While immortalized liver cells retain a high capacity for growth, they often have reduced or altered hepatocyte functions. In addition, the PICM-19 Cell Line s ability to synthesize liver specific proteins and display enhanced liver-specific functions are also important attributes to the development of in-vitro toxicological and pre-clinical drug testing platforms.

The PICM-19 cells replicate indefinitely, like tumor-derived cell lines, but unlike tumor cell lines the PICM-19 cells can stop growing and become the specialized cell types that make the liver what it is. This is in contrast to the liver cell lines derived from tumor tissue or by transforming the liver cells by the addition of cancer causing genes. In these cell lines, the cells do not retain the ability to stop growing and do not become normal liver cells. In addition, PICM-19 cells do not form tumors when injected (one million cells per injection site) under the skin of severe combined immunodeficient (SCID) mice.

Also, of concern in using tumor derived cell lines is the possibility that they could escape into the patient and cause cancer. This is particularly true if the cell line was derived from a human tumor (e.g. the HepG2 cell line derivatives) since human cells would be more likely to successfully evade the immune system of the patient than if they were animal tumor-derived. Because PICM-19 cells are pig cells with non-human sugar groups attached to their cell surfaces, they would cause an immediate hyperacute rejection response in the patient and would be eliminated. Because this response is mediated by preformed antibodies continuously present in the patients blood, even patients with compromised immune systems would in most cases mount this immediate tissue rejection response. Also, again, as stated above, the PICM-19 cell line was not tumor-derived, shows normal growth cessation, and did not form tumors when injected into SCID mice.

Human stem-cell-like cells prepared from fresh human liver tissue have two disadvantages. First, as with liver transplantation, human adult liver stem cell cultures may be contaminated with human pathogens, e.g., hepatitis viruses or HIV. PICM-19 cells are not contaminated with human pathogens and this can be readily verified at any time because the cell culture is a proven cell line, i.e., can be grown indefinitely. This relates to the second problem of the human adult liver derived stem cells-namely, that the growth potential of these cell cultures is not known. The PICM-19 Cell Lines growth potential is defined in that the cell line has been continuously cultured for several years and single cell cloned to make subclonal cell lines. This and other characteristics of the human stem-cell-like cell cultures have not been published in the peer-reviewed literature and so are not proven in this respect to our knowledge.

The related possibility that human embryonic stem (ES) cells could be a source of hepatocytes for an artificial liver device is also unproven in a similar way. While hepatocytes can presumably be derived from human ES cells lines, a reliable, efficient system for creating this differentiation process on a large scale has not been demonstrated in peer-viewed literature, and, therefore, does not presently exist as anything but a possibility.

Fresh pig hepatocytes are currently the most commonly considered cell substrate for an artificial liver device. The PICM-19 Cell Line has several advantages over fresh pig hepatocytes. Since fresh pig hepatocytes are harvested from pigs, each time they are acquired the health status of the pig is of concern, e.g., zoonotic diseases, bacterial contamination during processing and freezing, variation in retrovirus load, and variation in the quality of the harvested cells in terms of hepatic function. The PICM-19 Cell Line, in contrast, can be defined in all of these parameters and then rechecked as often as necessary because, unlike fresh or fresh-frozen pig hepatocytes, the PICM-19 Cell Line grows in culture. Thus, quality assurance in terms of hepatic function and biological safety will always be a problem for freshly harvested liver cells.

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

- significantly greater name recognition;

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

- established distribution networks;

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

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

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

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

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 Respect To Liver Device Technologies

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Braun, Inc. have developed an artificial liver device;

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Arbios Systems, Inc. developing artificial liver device incorporating liver cells obtained from pigs;

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Vital Theraperies, Inc. artificial liver device technology originally developed by VitaGen (formerly Hepatix) that uses a line of human liver cells cultivated from a hepatoblastoma, a type of liver tumor;

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Excorp Medical, Inc. - has developed a system for the temporary metabolic support of patients in acute liver failure, using porcine hepatocytes

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MultiCell Technologies, Inc. supplies immortalized human hepatocytes for drug discovery and therapeutic applications, as well as for inclusion in their artificial liver device, and

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TeraKlin AG developed a liver filtration system based on a dialysis principle to remove water-soluble and albumin bound toxins from the blood (acquired by Gambro).

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Fresenius AG developed a liver filtration systems based on a dialysis principle to remove water-soluble and albumin bound toxins from the blood

Competitors With Respect To In Vitro Toxicology Testing

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Amphioxus Cell Technologies is marketing toxicology testing kits incorporating an immortalized human liver cell line developed from a hepatoma (cancerous liver tumor);

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BD Biosciences - is marketing fully characterized, replatable, inducible cryopreserved human hepatocytes for P450 toxicity related studies;

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Biotrin International is marketing its Biotrin Rat Alpha GST EIA for hepatotoxicity investigations;

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CellzDirect, Inc. is marketing early cryopreserved human hepatocytes for in-vitro screening, metabolism, hepatotoxicity, interaction studies, etc.;

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Charles River Laboratories Discovery and Development Services is marketing early toxicity information to pharmaceutical companies engaged in discovery/lead optimization, utilizing numerous cryopreserved hepatocytes in its processes;

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Geron Corporation is developing a source of normal human liver cells for toxicity testing by applying its telomerase technology to immortalize primary human hepatocytes, and developing related procedures; and

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In Vitro Technologies, Inc. is marketing plated hepatocytes from non-transplantable human livers for toxicology, enzyme induction, efficacy, and virology; also offers rat, monkey, and dog hepatocytes.

Competitors With Respect To Cell-Based Vaccine Production

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Novartis AG is developing Optaflu, its cell culture-derived seasonal influenza vaccine which is aiming to utilize a mammalian cell line, rather than chicken eggs, for antigen production.

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Crucell N.V. in alliance with sanofi pasteur, are developing an inactivated split virus influenza vaccine based on PER.C6® cell culture technology.

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Baxter International Inc. is developing both seasonal (or inter-pandemic) and pandemic influenza vaccines based on the company's proprietary vero-cell technology

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Solvay Pharmaceuticals Inc. is developing its MDCK mammalian cell line, currently used for the production of veterinary vaccines, for the commercial production of human vaccines.

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, since our signing of the CRADA on November 1, 2002 and our sponsored research agreement with MSU on July 15, 2006, in addition to our sponsored research and development efforts, 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, if ever, of the results of our research and development program or any products derived from our sponsored research development efforts.

We believe our strategy has been a key factor in our having been able to successfully obtain an extension of the term of the CRADA in 2004 and access to the potential financing, described in this prospectus, to fulfill, expand and potentially accelerate our sponsored research and development activities. We also believe that our strategy will ultimately facilitate the commercialization of our targeted technologies and the marketing, distribution and public acceptance of products, if any, derived from our sponsored research and development efforts, if and when, regulatory approval is received.

Personnel

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 or terminated.

Scientific Advisory Board

Our Scientific Advisory Board provides advice regarding specific facets of our ongoing sponsored scientific

research and development. 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 its active research and commercial development, 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 research and development activities and technology assessment. Each member serves for a period of one year.

Currently, our Scientific Advisory Board members are:

Name

Age

Position

Held Position Since

Michael Ott, MD, Ph.D

45

Advisory Board Member

July 2004

Paul Coussens, Ph.D

49

Advisory Board Member/

Principal Investigator for MSU

Sponsored Research Agreement

August 2006

Joerg Gerlach, MD, Ph.D

45

Advisory Board Member

January 2007

Dr. Michael Ott:

Dr. Michael Ott is Associate Professor for Experimental Hepatology at the Hannover Medical School (Germany); he earned his medical and doctoral degrees from Germany s largest medical training school, Westfälische-Wilhelms-University (Munster), receiving his medical license from the Ärztekammer des Landes Nordrhein-Westfalen (Germany) in 1987. From 1987 through 1989, Dr. Ott undertook his post-doctoral (equivalent) research at the University of Muenster (Germany) in the Molecular Biology and Pathophysiology Laboratory for Hemostasis and Microcirculation, and subsequently completed a three-year training program from 1990 through 1993 in Internal Medicine at the Johann-Wolfgang-Goethe University Medical Center in Frankfurt, Germany. From 1993 to 1997, Dr. Michael Ott undertook further post-doctoral research at Marion Bessin Liver Research Center at the Albert Einstein College of Medicine, New York.

Since 2003, Dr. Michael Ott has been a tenured Associate Professor for Experimental Hepatology at the Hannover Medical School. From 1997 to 2003, he was a member of the Department of Gastroenterology, Hepatology and Endocrinology at the Hannover Medical School.

Dr. Ott has not conducted any specific Advisory Board activities on our behalf. However, we expect Dr. Ott s expertise in adult and embryonic stem cell research and his experience in cell transplantation to become of valuable assistance as the PICM-19 cell line is further optimized and incorporated into a bioreactor unit, we expect to avail ourselves of Dr. Ott s expertise.

Pursuant to the Scientific Advisory Board agreement, Dr. Ott receives compensation at the rate of $105 per hour for services rendered, subject to a minimum monthly compensation of $315 (a minimum of 3 hours at $105 per hour) and subject further to a maximum daily compensation of $840; he has received aggregate payments of $1,575 for 2004, $3,780 for 2005, $3,780 for 2006 and $1,260 for 2007.

Dr. Paul Coussens

Dr. Coussens received his Bachelor of Science degree in Biochemistry and Mathematics from Northern Michigan University in 1980, transferring to the University of Maine at Orono where he earned a Master's degree in Physical Chemistry in 1982. Dr. Coussens then attended Pennsylvania State University where he studied retroviruses and oncogenes and became skilled in Molecular Biology and Protein Analysis. Dr. Coussens earned his Ph.D. from

Pennsylvania State University in 1985. Following a brief post-doctoral study of the SRC oncogene protein at the State University of New York at Stony Brook, Dr. Coussens returned to his native Michigan to study Molecular Virology at Michigan State University (MSU).

In 1987, Dr. Coussens accepted a post as assistant professor in the Animal Science Department at Michigan State University, eventually becoming tenured and promoted to associate professor in 1992. During this time, Dr. Coussens conducted research on the molecular biology of Marek's disease virus, an oncogenic alpha-herpesvirus.In 1995, Dr. Coussens founded a biotechnology company focused on development of novel veterinary vaccines, diagnostics, and vaccine production systems. Dr. Coussens took a three-year leave from MSU to serve as Chief Technology Officer within this company.

Dr. Coussens returned to his position at MSU in June of 1999 and has most recently been building a program in the molecular pathogenesis of Mycobacterium paratuberculosis and Johne's disease. Also in 1999, Dr. Coussens assumed a leadership role as Director of the Center for Animal Functional Genomics (CAFG), working to secure funding and personnel to develop cDNA and oligonucleotide microarray facilities dedicated to physiology, immunology, nutrition, welfare and growth in livestock, companion, and wildlife animal species.The CAFG has since developed 12 microarrays for studies in pigs, cattle, dogs, zebra finches, and rainbow trout.In 2005, the MSU CAFG distributed more than 850 microarrays to 23 investigators representing 17 research institutes in six countries. This facility is now supported by a Strategic Partnership Grant from the MSU Foundation, by the Department of Animal Science, and by the Michigan Agricultural Experiment Station.

Dr. Coussens has published more than 70 peer-reviewed research articles, book chapters, and symposia papers, presented more than 150 abstracts and invited talks, and authored 12 U.S. patents, as well as several international patents.

Pursuant to a revised Scientific Advisory Board agreement, Dr. Coussens receives compensation at the rate of $200 per hour for services rendered, and subject further to a maximum daily compensation of $1,500; he has received aggregate payments of $1,575 for 2006 and $1,260 for 2007.

Dr. Joerg Gerlach

Dr. Joerg C. Gerlach is an internationally renowned authority in liver function, disease, and cutting-edge artificial liver support systems, with formal European training and extensive European and American experience as a medical doctor, specialist in experimental surgery, cell biology, hybrid organ development, bioengineering, and artificial liver devices.

Dr. Gerlach is a widely-published liver expert, with more than 100 research publications to his credit (90 first-authorships) in peer-reviewed scientific publications and industry journals, alongside 100-plus research abstracts, 15 book contributions, and over a dozen patents in Europe, Japan, and the United States covering cell biology, hybrid organs, and bioreactor systems.

At the University of Pittsburgh s McGowan Institute for Regenerative Medicine, Dr. Gerlach currently directs the Bioreactor Group, researching artificial organs, hybrid organs and bioartificial liver systems. The McGowan Institute is internationally recognized for regenerative medicine research and the clinical translation of emerging therapies. The Institute serves as a single base of operations for the university's leading scientists and clinical faculty working to develop tissue engineering, cellular therapies, and artificial and biohybrid organ devices.

Dr. Gerlach is also tenured as a Professor of Surgery (School of Medicine) and as Professor of Bioengineering (School of Engineering) at the University of Pittsburgh. He additionally serves as Professor of Experimental Surgery at Humboldt University, Berlin, Germany.

Dr. Joerg C. Gerlach received his MD and PhD degrees at Freie Universitaet, Berlin, completing a post-doctoral, Habilitation in Experimental Surgery at Humboldt University, Berlin, and subsequently earned his second PhD in Bioengineering at Strathclyde University, Glasgow, Scotland.

Pursuant to the Scientific Advisory Board agreement, Dr. Gerlach receives compensation at the rate of $150 per hour for services rendered and subject to a maximum daily compensation of $1,200; he has received aggregate payments of $10,012 for 2007.

The USDA Research Service Collaborating Scientists

The following scientists, all of whom are employees of the USDA, spend all or a portion of their time on our sponsored research and development activities and related matters. We do not compensate these scientists directly. However, a portion of the payments which we make under our CRADA is used for the payment of salaries.

Dr. Neil C. Talbot

Under the terms of our CRADA, Dr. Talbot spends approximately 10% of his time supervising and participating in our sponsored research and development activities.

With a Bachelor s degree in Biology, a Master of Science degree (viral immunology major) and a Doctorate in Cellular and Molecular Oncology, Dr. Talbot has over 24 years of scientific research experience with the University of Maryland, Squibb Institute for Medical Research (E.R. Squibb and Sons, Inc.), National Institutes of Health and is currently employed by the U.S. Department of Agriculture, where Dr. Talbot received a Merit Award for superior performance on in-vitro culture of embryonic cells in 1993 and a Scientist of the Year Award in 1996.

Dr. Talbot has extensive knowledge and experience in the following areas:

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Research on nuclear cloning of cattle and embryonic stem cells of the pig, sheep and cow;

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Oncogene and transformation suppression research with the isolation and characterization of oncogene resistant NIH/3T3 cell lines and v-Ki-ras suppressor genes;

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Tyrosine Kinase oncogene suppression research with the analysis of the C127 mouse cell line's resistance to transformation by various oncogenes by transfection or infection;

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Oncogene suppression research with the development of human HOS cell lines resistant to transformation by the v-Ki-ras oncogene.

-

Viral DNA analysis and production of monoclonal antibodies to equine herpesvirus type 1.

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Immunoassays (ELISA, SN, CF, and cytotoxicity) for the evaluation of the antibody response in experimental infections of equine herpesvirus type1.

Dr. Talbot is widely published, with numerous research papers in such publications as: In Vitro Cellular and Developmental Biology; Cells Tissues Organs; Veterinary Immunology and Immunopathology; and Experimental Cell Research. Dr. Talbot is the co-inventor of the Hepatocyte Cell Line Derived from the Epiblast of Pig Blastocysts, U.S. Patent 5,532,156, issued July 2, 1996, and the Artificial Liver Device, U.S. Patent 5,866,420, issued February 2, 1999.

Dr. Thomas J. Caperna

Under the terms of our CRADA, Dr. Caperna spends approximately 10% of his time supervising and participating in our sponsored research and development activities.

With a Bachelor s degree in Wildlife Biology and Zoology, a Master of Science degree in Biology (immunochemistry), and a PhD in Nutritional Biochemistry, Dr. Caperna has over 23 years of animal and cell research experience. Dr. Caperna has held research positions at Syracuse University and Virginia Polytechnic Institute and has been an associate and a research scientist at the U.S. Department of Agriculture since 1986.

Dr. Caperna s expertise and research are in the following areas:

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Isolation and culture of rat and pig hepatic parenchymal and sinusoidal cells;

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Hepatocellular trace metal metabolism and metalloprotein biochemistry;

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Pig, chicken and bovine endocrinology;

-

Nutrient-hormone interactions;

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Growth, development and energy metabolism in the pig with emphasis on the somatotropin axis;

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Stable isotope methodology in metabolic studies; and

Mr. Ryan Willard

Mr. Willard spends his full time conducting our sponsored research and development activities relating to the in-vitro toxicology testing platforms.

Having completed his B.S. degree (cum laude) in Integrated Science and Technology/Biotechnology with a minor in Business at James Madison University in Harrison, VA, Mr. Willard subsequently undertook studies at the Department of Biology, University of Virginia (Charlottesville, VA). Among his broad scope of research experience, Mr. Willard has worked on genetic cloning and sequencing, protein purification, and the development of non-isotopic assays.

Mr. Willard s efforts as Senior Laboratory and Research Specialist at University of Virginia focused on the development of a high-throughput assay for screening HIV anti-Rev compounds, testing positive compounds from the screen for efficacy and toxicity, and ultimately working towards elucidating a mechanism for each.

Mr. Willard works at the U.S. Department of Agriculture s Agricultural Research Service Growth Biology Laboratory located in Beltsville, MD.

The MSU Collaborating Scientist

Dr. Paul Coussens, who is a member of our Scientific Advisory Board, is also the principal investigator with respect to our sponsored research agreement with MSU. Please refer to Scientific Advisory Board above.

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 sponsored research and development processes as well as the approval, manufacture and marketing of any products derived from such sponsored 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:

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billing for services;

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quality of medical equipment and services;

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confidentiality, maintenance and security issues associated with medical records and individually identifiable health information;

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false claims; and

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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 develop any products for submission for regulatory approval. The production and marketing of any product that may be developed by us and our ongoing sponsored research and development, preclinical testing and clinical trial activities will be subject to extensive regulation and review by numerous governmental authorities.

If any such products are submitted for approval, they must undergo rigorous preclinical and clinical testing and an extensive regulatory approval process before they can be marketed. This process makes it longer, harder and more costly to bring any products to market; moreover, we cannot guarantee that approval will be granted. The pre-marketing approval process can be particularly expensive, uncertain and lengthy. 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 our proposed products 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 efforts, even if approved.

Environmental Regulation

Our sponsored research and development processes may involve the handling of potentially harmful biological materials as well as hazardous materials. The USDA's Agriculture Research Service, MSU and we are subject to federal, state and local laws and regulations governing the use, handling, storage and disposal of hazardous and biological materials and we incur expenses relating to compliance with these laws and regulations. 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.

Employees

In addition to the management services provided to us by Mr. Frank Menzler, we have 4 full-time employees and 3 part-time employees. In addition, through the Company s CRADA with the USDA, we have 1 USDA full time research scientist and 2 part-time senior research scientists. Through our sponsored research agreement with MSU, we have 1 part-time senior research scientist and 3 part-time research scientists. To the best of the Company's knowledge, none of the Company's officers or directors is bound by restrictive covenants from prior employers. None of the Company's employees are represented by labor unions or other collective bargaining groups. We consider relations with our employees to be good. We plan to retain and utilize the services of outside consultants for

additional research, testing, regulatory and legal compliance and other services.

Legal Proceedings

We are not a party to any material legal proceedings and there are no material legal proceedings pending with respect to our property. We are not aware of any legal proceedings contemplated by any governmental authorities involving either our property or us. None of our directors, officers or affiliates is an adverse party in any legal proceedings involving us, or has an interest in any proceeding, which is adverse to us.

Property

The Company's corporate office is located at 60 State Street, Suite 700, Boston, MA 02109. Our administrative offices are located at 1628 West First Avenue, Suite 216, Vancouver, BC, Canada, V6J 1G1 and 74 Atlantic Avenue, Suite 301, Marblehead, MA 01945. A private corporation controlled by Mr. Harmel S. Rayat, our secretary, treasurer, chief financial officer, chairman, director and majority stockholder, owns the Vancouver, BC premises. We share these facilities with several other companies with which Mr. Rayat is affiliated.

Our sponsored research and development activities are conducted in facilities located at the Center for Animal Functional Genomics, Department of Animal Science, Michigan State University, East Lansing, MI 48824, the Growth Biology Laboratory BARC-East, Bldg. 200, Rooms 202, and 213-215, Beltsville, Maryland 20705 and at the Biotechnology and Germplasm Laboratory BARC-East, Bldg. 200, Room 13, Beltsville, Maryland 20705. These facilities, which also include space for any support personnel that we may assign to the project, are provided to us under the terms of the CRADA with the USDA and our sponsored research agreement with MSU.

MANAGEMENT

The following table and text set forth the names and ages of all directors and executive officers of our company as of June 8, 2007. The board of directors is comprised of only one class. All of the directors will serve until the next annual meeting of stockholders and until their successors are elected and qualified, or until their earlier death, retirement, resignation or removal.

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 area appointed by, and serve at the discretion of, the Board of Directors.

Name	Age	Position	Held Position Since
Mr. Frank Menzler(1)	38	President, Chief Executive Officer and Director	October 1, 2006

Harmel S. Rayat (1)	45	Chief Financial Officer, Principal Accounting Officer, Secretary, Treasurer and Director	Director and President from December 16, 1998, to September 22, 2003; resigned as president on September 22, 2003 and appointed Secretary and Treasurer; and continued to serve as a director, Secretary and Treasurer, until August 12, 2005, when he resigned as Secretary and Treasurer and was appointed President and Chief Executive Officer, Chief Financial Officer, and Principal Accounting Officer; Mr. Rayat resigned as our President and Chief Executive Officer on October 1, 2006.
Javier Jimenez			March 14, 2007.
(2)	42	Director	

(1) On October 1, 2006, (i) Mr. Harmel S. Rayat resigned his positions as our president and chief executive officer (remaining our chief financial officer, principal accounting officer, and also assumed the positions of our secretary and treasurer); (ii) Mr. Frank Menzler was appointed as our president and chief executive officer; (iii), Mr. Arian Soheili resigned as our Secretary and Treasurer, positions he had held since August 12, 2005; prior to August 12, 2005, Mr. Soheili served as our president and chief financial officer since September 22, 2003.

(2) On March 14, 2007 Mr. Arian Soheili resigned his position as one of our directors. Mr. Javier Jimenez was appointed to fill the vacancy created by Mr. Soheili s resignation.

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, *President, Chief Executive Officer, Director*

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 Business 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 the nation's first-ever academically-sponsored research effort to receive private venture capital funding. In 2002, Mr. Menzler served as Marketing Manager for Europe, Middle East, Africa and Canada (EMEAC) at Guidant Corporation's, Cardiac Surgery Business Unit in Brussels, Belgium. In 2004, Mr. Menzler joined Abiomed, Inc. as General Manager, Europe, and then in 2006 was named Director, International Distributors, and was responsible 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

Harmel S. Rayat, *Secretary, Treasurer, Chief Financial Officer, Principal Accounting Officer, Director*

Mr. Rayat has served as one of our directors since December 4, 2000. In 2002 he was appointed secretary and treasurer. On August 12, 2005, he was appointed our president and chief executive and financial officer, as well as our principal accounting officer; he resigned as our president and chief executive officer on October 1, 2006. Since January 2002, Mr. Rayat has been president of Montgomery Asset Management Corporation, a privately held firm providing financial consulting services to emerging growth corporations, From April 2001 through January 2002, Mr. Rayat acted as an independent consultant advising small corporations. Prior thereto, Mr. Rayat served as the president of Hartford Capital Corporation, a company that provided financial consulting services to a wide range of emerging growth corporations. During the past five years, Mr. Rayat has served, at

various times, as a director, executive officer and majority stockholder of a number of publicly traded and privately held corporations, including, PhytoMedical Technologies, Inc. (currently secretary, treasurer, chief financial officer, director, and majority stockholder), Entheos Technologies, Inc. (currently president, chief executive officer, chief financial officer, director, and majority stockholder), Octillion Corp. (currently president, chief executive officer, chief financial officer, director and majority stockholder), and International Energy, Inc. (currently secretary, treasurer, chief financial officer and director and majority stockholder).

Javier Jimenez, *Director*

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, where he was responsible for key facets of the company s operations in Europe, Middle East, and Africa.

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

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

There are no arrangements or understandings between him and any other person(s) (naming such person(s)) pursuant to which he was or is to be selected as a director or nominee.

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

(a)

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

(b)

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

(c)

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

(d)

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

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

The U.S. Securities & Exchange Commission contended and alleged that Equity Alert had received the securities from persons controlling or controlled by the issuer of the securities, or under direct or indirect common control with such issuer with a view toward further distribution to the public; as a result, the U.S. Securities & Exchange Commission further alleged that the securities that Equity Alert had received were restricted securities, not exempt from registration, and hence could not be resold to the public within a year of their receipt absent registration; and, accordingly, the U.S. Securities & Exchange Commission further alleged, since Equity Alert effected the resale within a year of its acquisition of the securities, without registration, such resale violated Sections 5(a) and 5(c) of the Securities Act.

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

Compliance With Section 16(a) Of The Exchange Act

Based solely upon our review of Forms 3 and 4 and amendments thereto furnished to us by each of Messrs. Menzler, Rayat and Jimenez pursuant to Rule 16a-3(e) of during our current fiscal year and Form 5 and the amendments thereto furnished to us with respect to our most recent fiscal year, we believe that all of our directors, executive officers and persons who own more than 10% of our common stock were in compliance with Section 16(a) of the Exchange Act of 1934 during the fiscal year. During the years ended December 31, 2006 and 2005, all of our directors, executive officers and persons who own more than 10% of our common stock were in compliance with section 16(a) of the Exchange Act of 1934.

Directors

Our board of directors consists of three members. Directors serve for a term of one year and stand for election at our annual meeting of stockholders. 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.

We do not have any committees, nor do we have a member of the board of directors who would qualify as a financial expert.

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.

Compensation of Directors

In 2006, 2005, and 2004, we incurred $10,800, $11,300, and $9,500 respectively, in fees to directors.

Standard Arrangements

Currently, we pay our directors for their services as directors a monthly stipend of $250 per month, with the exception of Mr. Menzler and Mr. Rayat, have not received any compensation for services rendered as directors. In addition, each director receives $100 per board or committee meeting attended. We have no other arrangements pursuant to which any our directors were compensated during the years ended December 31, 2006, 2005, and 2004, for services as a director.

EXECUTIVE COMPENSATION

Remuneration and Executive Compensation

Upon his appointment on August 12, 2005, Mr. Rayat agreed to serve as our president, chief executive officer, chief financial officer, principal accounting officer and as a director without compensation, effective August 12, 2005, through December 31, 2006. Notwithstanding his resignation as our president and chief executive officer on October 1, 2006, Mr. Rayat continues to serve as our chief financial officer, principal accounting officer, secretary, treasurer and as a director without compensation

The following table summarizes the compensation of our President (Principal Executive Officer) and other officers and directors who received compensation during the three years ended December 31, 2006, 2005 and 2004:

SUMMARY COMPENSATION TABLE

Name and principal position	Year 12/31	Salary ($)	Bonus ($)	Stock Awards ($)	Option Awards ($)	Non-Equity Incentive Plan Compensation ($)	Nonqualified Deferred Compensation Earnings ($)	All Other Compensation ($)(1)	Total ($)
Frank Menzler (2)	2006	$56,250	0	0	2,250,000 (3)	0	0	0	$56,250
President and Chief	2005	0	0	0	0	0	0	0	0
Executive Officer	2004	0	0	0	0	0	0	0	0
Harmel S. Rayat (2)									
Chief Financial	2006	0	0	0	0	0	0	0	0
Officer, Principal	2005	0	0	0	0	0	0	$2,300	$2,300
Accounting Officer,	2004	0	0	0	0	0	0	$3,500	$3,500
Secretary and Treasurer									
		0	0	0	0	0	0	$3,600	$3,600

Arian Soheili(2)	2006	0	0	0	0	0	0	$4,900	$4,900
	2005	0	0	0	0	0	0	$2,500	$2,500
Former Secretary and Treasurer	2004								
Jasvir Kheleh (4)	2006	0	0	0	0	0	0	$3,600	$3,600
	2005	0	0	0	0	0	0	$4,100	$4,100,
	2004	0	0	0	0	0	0	$3,500	$3,500

(1)

Includes standard Board of Directors fees and meeting attendance fees.

(2)

On October 1, 2006, (i) Mr. Harmel S. Rayat resigned his positions as our president and chief executive officer (remaining our chief financial officer, principal accounting officer, and also assumed the positions of our secretary and treasurer); (ii) Mr. Frank Menzler was appointed as our president and chief executive officer; (iii), Mr. Arian Soheili resigned as our Secretary and Treasurer, positions he had held since August 12, 2005; prior to August 12, 2005, Mr. Soheili served as our president and chief financial officer since September 22, 2003. On March 14, 2007 Mr. Arian Soheili resigned his position as one of our directors. Mr. Javier Jimenez was appointed to fill the vacancy created by Mr. Soheili s resignation.

(3)

On January 25, 2007, the Company cancelled the 2,250,000 employee stock options issued on October 1, 2006 and simultaneously, the Company granted options to purchase up to 2,000,000 shares of the Company s common stock at an exercise price of $0.52. None of these options were vested at June 8, 2007. The options vest as follows: (a) 1,500,000 options shall vest if and when the Company or a wholly owned subsidiary, or any one current or future medical device or other technology, approved by the Board of Directors is acquired, in whole or in part, or when either the Company or a subsidiary, enters into a strategic collaborative agreement for any one current or future medical device or other technology, approved by the Board of Directors, provided that the Company s Board of Directors has approved, by written resolution, any such acquisition, sale or agreement; (b) 250,000 stock options shall vest upon the filing of human safety trials for the Company s artificial liver device (or such other Board approved medical device or other technology) in Europe or the equivalent filing in the US; and (c) 250,000 stock options shall vest upon the successful completion of human safety trials for the Company s artificial liver device (or such other Board approved medical device or other technology) in Europe or the equivalent safety trial approval in the US (completion of phase 1). Until such options vest, Mr. Menzler has no right with respect to the underlying shares.

(4)

On March 14, 2007, Mr. Jasvir Kheleh resigned his position as one of our directors.

Stock Option Grants in Last Fiscal Year

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

Number of Securities Underlying Options Granted to Employees

% of Total

Exercise

Expiration

Name

Options

in 2006

Price ($/sh)

Date

Frank Menzler

2,250,000

27%

$0.73

October 1, 2016

Harmel Rayat

0

0

n/a

n/a

Arian Soheili (1)

0

0

n/a

n/a

Jasvir Kheleh (2)

0

0

n/a

n/a

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

(2) Resigned as Director on March 14, 2007

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

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

Common Shares Underlying Unexercised

Value of Unexercised In-the-money

Options on December 31, 2006

Options on December 31, 2006

Name

Exercisable

Unexercisable

Exercisable

Unexercisable

Frank Menzler

0

2,250,000

0

$1,260,000

Harmel Rayat

0

0

0

0

Arian Soheili (1)

0

0

0

0

Jasvir Kheleh (2)

0

0

0

0

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

(2) Resigned as Director on March 14, 2007

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 stock option agreement with Mr. Frank Menzler for 2,000,000 common shares at an exercise price of $0.52 per share. There are no understandings or agreements known by management at this time, which would result in a change in control. If such transactions are consummated, of which there can be no assurance, we may issue a significant number of shares of capital stock, which could result in a change in control and/or a change in our current management.

Stock Option Plans and Other Issuances

On July 12, 2001, our stockholders approved the 2001 Stock Option Plan, which has 40,000,000 shares reserved for issuance thereunder, all of which were registered under Form S-8 on May 8, 2003. The objective of this plan is to attract and retain the best personnel, providing for additional performance incentives, and promoting our success by providing individuals the opportunity to acquire common stock.

On December 18, 2002, our board of directors agreed to reserve 10,000,000 Non-Statutory Stock Options out of the 40,000,000 common shares available for issuance under our 2001 Stock Option Plan However, the options were actually granted and the terms and conditions, such as expiration dates and vesting periods are defined in the individual stock option agreements were finalized on February 10, 2003. The options are exercisable at a price of $0.07 per share and in three (3) equal instalments of thirty-three and one-third percent (33 1/3%), the first instalment being exercisable immediately, with an additional of thirty-three and one-third percent (33 1/3%) of the shares becoming exercisable on each of the two (2) successive anniversary dates. The options expire on February 10, 2013. Harmel S. Rayat, an officer and director, was the recipient of 5,500,000 options; Ranjit Bhogal, an employee, was the recipient of 2,250,000 options; Bhupinder Mann, an employee, was the recipient of 1,500,000 options; and Jeet Sidhu, an employee, was the recipient of 750,000 options.

On February 12, 2003, our board of directors granted 75,000 options to purchase common stock to Harvinder Dhaliwal, a director at $0.38 per share, being the approximate fair value at the date of grant and expiring ten (10) years from the grant date. The options become exercisable in two equal instalments of fifty percent (50%), with the first instalment becoming exercisable immediately and the balance becoming exercisable in 180 days from issuance. On September 22, 2003, 37,500 of these options were cancelled due to the resignation of the director from our board of directors.

On August 27, 2003, our board of directors granted 3,000,000 options to purchase common stock to certain of our directors, officers and our employees at $2.11 per share. The option price was based on the closing price of our common shares on August 27, 2003. The options become exercisable in two equal instalments of fifty percent (50%), with the first instalment becoming exercisable immediately and the balance becoming exercisable in 180 days from issuance. Harmel S. Rayat, an officer and director, was the recipient of 1,500,000 options; Ranjit Bhogal, an employee, was the recipient of 750,000 options; Bhupinder Mann, an employee, was the recipient of 500,000 options; and Jeet Sidhu, an employee, was the recipient of 250,000 options.

We did not grant any stock options in 2004. As of December 31, 2004, options to purchase 11,133,000 of our common stock at a weighted average exercise price of $0.48 per share were outstanding under the 2001 Stock Option Plan, of which 7,799,666 options to purchase shares were exercisable at December 31, 2004.

On March 7, 2005, our board of directors authorized the granted 4,000,000 options to purchase common stock to certain employees at $3.10 per share. The option price was based on the closing price of our common shares on

March 7, 2005. The options become exercisable immediately. Ranjit Bhogal, an employee, was the recipient of 2,500,000 options; and Jeet Sidhu, an employee, was the recipient of 1,500,000 options.

On March 17, 2005, our board of directors granted 2,000,000 options to purchase common stock to certain employees at $2.38 per share. The option price was based on the closing price of our common shares on March 17, 2005. The options become exercisable immediately. Ranjit Bhogal, an employee, was the recipient of 1,400,000 options; and Jeet Sidhu, an employee, was the recipient of 600,000 options.

On April 24, 2006, the Company cancelled 13,118,000 stock options previously granted to officers, directors, employees and consultants, comprising of 5,500,000, 1,668,000, 2,000,000 and 3,950,000 options at an exercise price of $0.07, $2.11, $2.38 and $3.10 each, respectively. On the same day, the Company granted 6,000,000 stock options at an exercise price of $0.85 to two employees. The vesting periods for the options are as follows: 30% of the stock options are exercisable on or after July 24, 2006, another 30% of the stock options are exercisable on or after October 24, 2006 and the remaining 40% of the stock options are exercisable on or after April 24, 2007.

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

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

On January 25, 2007, the Company cancelled the 2,250,000 employee stock options issued on October 1, 2006 and simultaneously, the Company granted options to purchase up to 2,000,000 shares of the Company s common stock at an exercise price of $0.52. None of these options were vested at June 8, 2007. The options vest as follows: (a) 1,500,000 options shall vest if and when the Company or a wholly owned subsidiary, or any one current or future medical device or other technology, approved by the Board of Directors is acquired, in whole or in part, or when either the Company or a subsidiary, enters into a strategic collaborative agreement for any one current or future medical device or other technology, approved by the Board of Directors, provided that the Company s Board of

Directors has approved, by written resolution, any such acquisition, sale or agreement; (b) 250,000 stock options shall vest upon the filing of human safety trials for the Company s artificial liver device (or such other Board approved medical device or other technology) in Europe or the equivalent filing in the US; and (c) 250,000 stock options shall vest upon the successful completion of human safety trials for the Company s artificial liver device (or such other Board approved medical device or other technology) in Europe or the equivalent safety trial approval in the US (completion of phase 1).

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

PRINCIPAL STOCKHOLDERS

The following table sets forth, as of June 8, 2007 the beneficial ownership of the Company's Common Stock by each director and executive officer of the Company and each person known by the Company to beneficially own

more than 5% of the Company's Common Stock outstanding as of such date and the executive officers and directors of the Company as a group. The percentage ownership shown in the table is based upon the 73,659,863 common shares outstanding at June 8, 2007, and ownership by these persons of options or warrants exercisable within 60 days of such date.

Number of Shares

Person or Group

of Common Stock

Percent

Harmel S. Rayat (1)

44,213,056

60%

216-1628 West First Avenue

Vancouver, B.C. V6J 1G1 Canada

Frank Menzler (2)

2,000,000

3%

60 State Street, Suite 700

Boston, MA 02109

Javier Jimenez

0

0%

60 State Street, Suite 700

Boston, MA 02109

Directors and Executive Officers

46,213,056

63%

as a group (3 persons)

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

(2) 2,000,000 stock options were granted on January 25, 2007, which may be acquired pursuant to options granted and exercisable under the Company's stock option plans. None of these options were vested at June 8, 2007. Until such options vest, Mr. Menzler has no right with respect to the underlying shares.

On December 16 1998, Mr. Rayat was appointed our president and acquired 4,000,000 shares of our common stock directly from us and an additional 3,000,000 shares directly from our then president and majority stockholder. On July 12, 2001 our stockholder s approved a four for one forward split of our issued and outstanding common stock. This resulted in Mr. Rayat owning 28,000,000 shares of our common stock. Mr. Rayat s subsequent purchases and dispositions are summarized below:

- 8,933,332 shares purchased on July 13, 2001 in consideration of $134,000 for debt owed for management fees;

- 2,160,000 shares purchased on April 26, 2002 in consideration of $108,000 for debt owed for management fees;

- 1,920,000 shares purchased from us on July 18, 2002 in consideration of $84,000 for debt owed for management fees;

- 2,390,000 shares purchased on October 1, 2002 from EquityAlert.com Inc. in satisfaction of a debt for accrued and unpaid management fees in the amount of $120,000;*

- 143,470 shares disposed on February 18, 2004 in consideration for 100% interest in strata title office space valued at $390,488.84. The vendors, which include the wife, father and brother of Harmel S. Rayat, received a 15% premium for receiving restricted common shares in payment.

- 1,000,000 restricted common shares disposed in exchange for 640 non-voting, redeemable preferred shares valued at $1,000 per share in a private British Columbia corporation wholly owned by Ranjit Bhogal, an employee of HepaLife Technologies.

- 1,250,000 restricted common shares disposed in exchange for 800 non-voting, redeemable preferred shares valued at $1,000 per share in a private British Columbia corporation wholly owned by Jeet Sidhu, an

employee of HepaLife Technologies.

* These shares were originally issued by us to EquityAlert.com, Inc., a company which at the time was controlled by Mr. Rayat, on July 25, 2002 in consideration of certain investor relations services, valued at $119,500, performed by EquityAlert form our benefit and account.

CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

Management Fees

During 2006, 2005 and 2004, we incurred $10,800, $11,300, and $9,500 respectively, in management fees to our directors.

Notes Payable

At a meeting held on May 28, 2003, our board of directors agreed to accept a loan commitment from Mr. Harmel S. Rayat, a director and our major stockholder agreed to loan us up to $750,000 on an as needed basis. The commitment has subsequently increased to $1,600,000. Proceeds from the loan are to fund our research and development commitments, legal and audit fees, ongoing investor and public relations costs and other working capital requirements.

In 2003, we drew down $725,000; the loan was reflected by unsecured promissory notes bearing interest at rates ranging from 7.00% to 7.25%. These notes and accrued and unpaid interest in the amount of $51,500 were paid in 2004.

On August 27, 2004, we again drew down $300,000 from the loan commitment and issued an unsecured promissory note bearing an interest rate of 7.50%, due on August 27, 2005. On December 31, 2004 there was accrued and unpaid interest on the note of $7,187 is included in accounts payable. This note was repaid in January of 2005.

In December 2004, Mr. Rayat advanced, on our behalf, $700,000. We issued an unsecured promissory note bearing interest at a rate of prime plus 3% per annum and due on September 1, 2006.

In March 2005, Mr. Rayat advanced, on our behalf, $250,000. We issued an unsecured promissory note bearing interest at a rate of 8.50 % due on March 8, 2006.

In December 2005, Mr. Rayat advanced, on our behalf, $200,000. We issued an unsecured promissory note bearing interest at a rate of 8.50 % due on December 5, 2006.

On January 18, 2006, we agreed, in consideration of Mr. Rayat s oral undertaking to increase his loan commitment to us up by an additional $100,000, to $1,600,000, to convert all of the loans to demand loans. The notes are due and payable upon the receipt of written demand from Mr. Rayat.

The loans bear interest at the rate of 8.50% per annum. We do not currently have sufficient capital on hand to repay these loans. We may prepay these loans, at any time, without penalty.

We may not use any of the proceeds from the issuance of the Convertible Note to GCA Strategic to repay these loans. There is no assurance that we will be able to repay all or a part of these loans or obtain any additional loans from Mr. Rayat.

Amounts payable to related parties

In 2006, we accrued $158,535 in payables to Mr. Harmel S. Rayat for unpaid interest on notes payable and

travel expenses payable, paid or incurred on our behalf.

Rent Expenses

The Company's administrative office is located at Suite 216, 1628 West 1st Avenue, Vancouver, British Columbia, Canada. A private corporation controlled by Mr. Rayat, our secretary, treasurer, chief financial officer, principal accounting officer and also one of our directors, owns these premises. The Company pays a monthly rent of C$3,200 effective from April 1, 2006.

SELLING STOCKHOLDERS

The following table presents information regarding the selling stockholder. 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	Shares Beneficially Owned Before Offering (A)	Percentage of Outstanding Shares Beneficially Owned Before Offering (B)	Shares to be Sold in the Offering	Percentage of Outstanding Shares Beneficially Owned After Offering(C)
GCA Strategic Investment Fund Limited (D)	5,114,444	6%	5,114,444	0%
Equinox Securities, Inc.(E)	67,000	0.009%	67,000	0%
TOTAL	5,181,444	6%	5,181,444	0%

A.

The shares beneficially owned by GCA Strategic consist of 670,000 shares issuable upon the exercise of the GCA Warrants and 4,444,444 shares issuable upon conversion of the Convertible Note. The number of shares that will actually be issued to GCA Strategic upon conversion of the Convertible Note is indeterminate and could be greater or less than the amount shown in the table. The shares beneficially owned by Equinox consist of the shares issuable upon the exercise of the Placement Warrants.

The number of shares set forth in the table for GCA Strategic represents an estimate of the number of shares of common stock to be offered by GCA Strategic. The actual number of shares of common stock issuable upon conversion of the Convertible Note is indeterminate, is subject to adjustment and could be materially less or more than such estimated number depending on factors which cannot be predicted by us at this time including, among other factors, the future market price of the common stock. The actual number of shares of common stock offered in this prospectus, and included in the Registration Statement of which this prospectus is a part, includes such additional number of shares of common stock as may be issued or issuable upon conversion of the Convertible Note and exercise of the GCA Warrants by reason of any stock split, stock dividend or similar transaction involving the common stock, in accordance with Rule 416 under the Securities Act of 1933.

Under the terms of the Convertible Note, if the Convertible Note had actually been converted on May 11, 2007, the conversion price would have been $1.125. Under the terms of the Convertible Note and the GCA Warrants, the Convertible Note are convertible and the GCA Warrants are exercisable by any holder only to the extent that the number of shares of common stock issuable pursuant to such securities, together with the number of shares of common stock owned by such holder and its affiliates (but not including shares of common stock underlying unconverted shares of Convertible Note or unexercised portions of the GCA Warrants) would not exceed 4.9% (except under certain limited circumstances) of the then outstanding common stock. Accordingly, the number of shares of common stock set forth in the table for GCA Strategic exceeds the number of shares of common stock that it could own beneficially at any given time through its ownership and conversion of the Convertible Note and the GCA Warrants.

B.

Percentage of outstanding shares is based on 73,659,863 shares of common stock outstanding as of June 8, 2007, which includes all shares of common stock beneficially owned by the selling stockholders before this offering.

C.

Percentage of outstanding shares is based on shares of common stock outstanding as of June 8, 2007.

D.

Lewis N. Lester, Director, has voting and disposition power over the shares of GCA Strategic being offered under this prospectus. Mr. Lester disclaims beneficial ownership of any of the shares of common stock held by GCA Strategic.

E.

Steve Oliveira, the President of Equinox, has shared voting and disposition power over the shares of Equinox being offered under this prospectus.

PLAN OF DISTRIBUTION

The selling stockholder is offering the common stock offered by this prospectus. The common stock may be sold or distributed from time to time by the selling stockholders only for cash directly to one or more purchasers or through brokers, dealers, or underwriters who may act solely as agents at market prices prevailing at the time of sale, at prices related to the prevailing market prices, at negotiated prices, or at fixed prices, which may be changed. The sale of the common stock offered by this Prospectus may be consummated in one or more of the following methods:

-

Ordinary brokers transactions;

-

Transactions involving cross or block trades;

-

Transactions through brokers, dealers, or underwriters who may act solely as agents;

-

Transactions at the market into an existing market for the common stock;

-

Transactions not involving market makers or established trading markets, including direct sales to purchasers or sales effected through agents;

-

In privately negotiated transactions; or

-

Any combination of the foregoing.

In order to comply with the securities laws of certain states, if applicable, the shares may be sold only through registered or licensed brokers or dealers. In addition, in certain states, the shares may not be sold unless they have been registered or qualified for sale in the state or an exemption from the registration or qualification requirement is available and complied with.

Brokers, dealers, underwriters, or agents participating in the distribution of the shares as agents may receive compensation in the form of commissions, discounts, or concessions from the selling stockholders and/or purchasers of the common stock for whom the broker-dealers may act as agent. The compensation paid to a particular broker-dealer may be less than or in excess of customary commissions.

Each of GCA Strategic and Equinox, the selling stockholders, may be deemed an "underwriter" within the meaning of the Securities Act.

Neither the selling stockholder nor we can presently estimate the amount of compensation that any agent will receive. We know of no existing arrangements between the selling stockholder, any other stockholders, broker, dealer, underwriter, or agent relating to the sale or distribution of the shares. At the time a particular offer of shares is made, a prospectus supplement, if required, will be distributed that will set forth the names of any agents, underwriters, or dealers and any compensation from the selling stockholder and any other required information.

We will pay the expenses incident to the registration, offering, and sale of the shares to the public other than commissions or discounts of underwriters, broker-dealers, or agents. We have also agreed to indemnify GCA Strategic against specified liabilities, including liabilities under the Securities Act of 1933.

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

GCA Strategic and its affiliates have agreed not to engage in any direct or indirect short selling or hedging of our common stock during the term of the common stock purchase agreement.

We have advised the selling stockholder that while they are engaged in a distribution of the shares included in this prospectus they are required to comply with Regulation M promulgated under the Securities Exchange Act of 1934, as amended. With certain exceptions, Regulation M precludes the selling stockholder, any affiliated purchasers, and any broker-dealer or other person who participates in the distribution from bidding for or purchasing, or attempting to induce any person to bid for or purchase any security which is the subject of the distribution until the entire distribution is complete. Regulation M also prohibits any bids or purchases made in order to stabilize the price of a security in connection with the distribution of that security. All of the foregoing may affect the marketability of the shares offered hereby this prospectus.

This offering will terminate on the date that all shares offered by this prospectus by GCA Strategic have been sold.

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.

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.

At June 8, 2007, we had outstanding 73,659,863 shares of our common stock. Of these shares, approximately 25,196,807 shares are freely tradable by persons, other than our "affiliates, without restriction under the Securities Act of 1933, as amended; and 48,463,056 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. On, June 8, 2007 our affiliate, Mr. Harmel S. Rayat, held 44,213,056 shares (Also includes 3,203,194 shares held by Mr. Harmel S. Rayat's wife. Mr. Rayat disclaims beneficial ownership of the shares owned by his wife). Absent a registration statement covering the resale

of such shares, the shares may only be sold pursuant to Rule 144. Absent a registration statement covering the resale of such shares, when issued, these shares may be resold in a public transaction only pursuant to Rule 144.

In general, under Rule 144, a person or persons whose shares are aggregated, including any affiliate of ours who has beneficially owned restricted securities for at least one year, would be entitled to sell within any three-month period, a number of shares that does not exceed 1% of the number of common stock then outstanding.

Sales under Rule 144 are also subject to manner of sale and notice requirements and to the availability of current public information about us. Under Rule 144(k), a person who is not considered to have been an affiliate of ours at any time during the 90 days preceding a sale, and who has beneficially owned restricted securities for at least two years, including the holding period of any prior owner except an affiliate of ours, may sell these shares without following the terms of Rule 144.

DESCRIPTION OF CAPITAL STOCK

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 undesignated preferred stock, $0.10 par value per share.

Common Stock

As of June 8, 2007, there were 73,659,863 shares of common stock outstanding we had 59 stockholders of record as of June 8, 2007. All of the issued and outstanding shares of common stock on June 8, 2007, 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. All then outstanding shares of common stock are, and all shares of common stock to be outstanding upon completion of this offering will be, fully paid and non-assessable.

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 June 8, 2007, 2,000,000 options for shares were outstanding under our approved stock option plan and 35,598,000 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 June 8 , 2007, 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 .

Registrar and Transfer Agent

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

Registration Rights

In connection with the May 11, 2007, GCA Strategic transaction, we entered into a registration rights agreement with GCA Strategic. Pursuant to the terms of the Registration Rights Agreement, we are obligated to file a registration statement with the Securities and Exchange Commission covering shares which may be purchased by or which have been issued to GCA Strategic under the purchase agreement. Please refer to the section of this Prospectus titled GCA Strategic Transaction. We had also granted registration rights to Fusion Capital under our common stock purchase agreement with Fusion Capital Fund II, LLC (Fusion Capital). A registration statement was filed and subsequently declared effective on February 16, 2006. On May 11, 2007, we terminated the common stock purchase agreement with Fusion Capital; and, on June 11, 2007, we filed a post effective amendment requesting deregistration of the remaining 6,954,320 shares of our common stock that were registered pursuant to the registration statement and not issued to Fusion Capital pursuant to the common stock purchase agreement.

Limitation of Liability; Indemnification

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 or any 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.

Potential Anti-Takeover Effect of Provisions of Florida Law

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 60% of our issued and outstanding shares (56% if all of the offered shares are sold), 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.

Potential Anti-Takeover Effect of our Articles of Incorporation and Bylaws

Our articles of incorporation permits 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.

EXPERTS

Peterson Sullivan, PLLC., an independent registered public accounting firm, audited our balance sheets as of December 31, 2006, 2005 and 2004, and the statements of operations, stockholders' deficiency and cash flows for the years ended December 31, 2006, 2005 and 2004. These financial statements are included in this prospectus in reliance on their report, given their authority as experts in accounting and auditing.

LEGAL MATTERS

Sierchio Greco & Greco, LLP will pass upon the validity of the issuance of the common stock offered hereby for us.

AVAILABLE 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.

FINANCIAL STATEMENTS

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AUDITED FINANCIAL STATEMENTS

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (DECEMBER 31, 2006)

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HEPALIFE TECHNOLOGIES, INC. AND SUBSIDIARY

(A Development Stage Company)

CONSOLIDATED BALANCE SHEETS

March 31, 2007 and December 31, 2006

(Unaudited)

(Expressed in U.S. Dollars)	March 31, 2007	December 31, 2006
ASSETS		
Current assets		
Cash	$88,027	$252,887
Prepaid expenses	3,950	3,775
Total current assets	91,977	256,662
Equipment, net (Note 7)	22,283	23,259
Total assets	$114,260	$279,921
LIABILITIES		
Current		
Accounts payable and accrued liabilities	$97,171	$170,077
Interest payable - related parties (Note 4)	174,997	158,535
Notes payable - related party (Note 4)	1,010,000	1,010,000
Total liabilities	1,282,168	1,338,612
STOCKHOLDERS' EQUITY		
Stockholders' Deficiency		
Preferred stock: $0.10 par value; Authorized: 1,000,000		
Issued and outstanding: none	-	-

Common stock: $0.001 par value; Authorized: 300,000,000		
Issued and outstanding: 73,150,844 (2006: 72,768,844)	73,151	72,769
Additional paid-in capital	10,758,793	10,084,412
Subscription Receivable	(45,000)	-
Loss accumulated during the development stage	(11,954,852)	(11,215,872)
Total stockholders' deficiency	(1,167,908)	(1,058,691)
Total liabilities and stockholders' deficiency	$114,260	$279,921

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

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

CONSOLIDATED STATEMENTS OF OPERATIONS
For the three months ended March 31, 2007 and 2006
and from inception (October 21, 1997) to March 31, 2007
(Unaudited)

(Expressed in U.S. Dollars)	March 31, 2007	March 31, 2006	From inception (October 21, 1997) to March 31, 2007
Revenue	$-	$-	$-
Expenses			
Administrative and general	$42,134	$6,520	$463,906
Depreciation	3,811	740	15,145
Interest on promissory note	21,169	24,103	254,235
Interest, bank charges and foreign exchange loss	2,292	1,432	18,277
Professional fees- accounting and legal	9,703	86,868	417,331
Consulting fees	12,087	8,525	987,492
Research and development (Notes 5 and 6)	29,621	65,423	878,376
Salary and benefits	123,435	29,275	479,581
Shareholder and investor relations	9,405	3,125	3,253,479
Stock offering costs	-	505,917	1,926,713
Transfer agent and filing	460	205	11,849
Travel	16,645	1,383	222,785
Stock based compensation expenses (Note 10)	469,762	-	3,077,064
	740,524	733,516	12,006,233
Operating Loss	(740,524)	(733,516)	(12,006,233)

Other income and expenses			
Interest income	1,544	1,077	51,381
	1,544	1,077	51,381
Net loss available to common shareholders	$(738,980)	$(732,439)	$(11,954,852)
Loss per share - basic and diluted	$(0.01)	$(0.01)	
Weighted average number of common shares			
outstanding - basic and diluted	72,883,097	70,428,454	

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

HEPALIFE TECHNOLOGIES, INC. AND SUBSIDIARY

(A Development Stage Company)

CONSOLIDATED STATEMENT OF STOCKHOLDERS' DEFICIENCY

from inception (October 21, 1997) to March 31, 2007

(Unaudited)

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

Comprehensive income (loss)						
Loss, year ended December 31, 1998	-	-	-		(471,988)	(471,988)
Balance, December 31, 1998	29,200,000	29,200	448,800	-	(471,946)	6,054
Common stock issued for cash						
at $0.025 per share, March 1999	12,000,000	12,000	288,000		-	300,000
Comprehensive income (loss)						
Loss, year ended December 31, 1999	-	-	-		(121,045)	(121,045)
Balance, December 31, 1999	41,200,000	41,200	736,800	-	(592,991)	185,009
Comprehensive income (loss)						
Loss, year ended December 31, 2000	-	-	-		(80,608)	(80,608)
Balance, December 31, 2000	41,200,000	41,200	736,800	-	(673,599)	104,401
Conversion of debt to equity at $0.015						
per share, July 31, 2001	8,933,332	8,933	125,067		-	134,000
Comprehensive income (loss)						
Loss, year ended December 31, 2001	-	-	-		(160,364)	(160,364)

Balance, December 31, 2001	50,133,332	50,133	861,867	-	(833,963)	78,037
Common stock issued for services at $0.06 per share, April 23, 2002	10,000	10	590		-	600
Conversion of debt to equity at $0.05 per share, April 26, 2002	2,160,000	2,160	105,840		-	108,000
Common stock issued for investor relations services at $0.05 per share, July 25, 2002	2,390,000	2,390	117,110		-	119,500
Conversion of debt to equity at $0.05 per share, December 18, 2002	1,920,000	1,920	94,080		-	96,000
Comprehensive income (loss)						
Loss, year ended December 31, 2002	-	-	-		(375,472)	(375,472)
Balance, December 31, 2002	56,613,332	56,613	1,179,487	-	(1,209,435)	26,665
Common stock issued pursuant to exercise of stock options during the year at between $0.07 to $2.11 per share	282,500	283	398,317		-	398,600
Common stock issued pursuant						

to exercise of share purchase warrants in November 2003 at $0.025 per share	7,300,000	7,300	175,200		-	182,500
Comprehensive income (loss)						
Loss, year ended December 31, 2003	-	-	-		(1,102,723)	(1,102,723)
Balance, December 31, 2003	64,195,832	64,196	1,753,004	-	(2,312,158)	(494,958)
Common stock issued pursuant to exercise of stock options during the year between $0.07 to $2.11 per share	1,622,000	1,622	1,339,998		-	1,341,620
Common stock issued pursuant to exercise of share purchase warrants in December 2004 at $0.025 per share	2,000,000	2,000	48,000		-	50,000
Comprehensive income (loss)						
Loss, year ended December 31, 2004	-	-	-		(1,435,613)	(1,435,613)
Balance, December 31, 2004	67,817,832	67,818	3,141,002	-	(3,747,771)	(538,951)
Common stock issued pursuant to exercise of stock options in March 2005 at						

$3.10 per share	50,000	50	154,950	-	155,000
Common stock issued pursuant to exercise of stock options in May 2005 at $2.11 per share	45,000	45	94,905	-	94,950
Common stock issued pursuant to exercise of stock options in June 2005 at $2.11 per share	100,000	100	210,900	-	211,000
Common stock issued pursuant to exercise of stock options in October 2005 at $2.11 per share	40,000	40	84,360	-	84,400
Common stock issued pursuant to exercise of stock options in March 2005 at $2.11 per share	50,000	50	105,450	-	105,500
Common stock issued pursuant to exercise of share purchase warrants in March 2005 at $0.025 per share	1,250,000	1,250	30,000	-	31,250
Restricted common stock issued in June 2005 pursuant to share purchase agreement	20,000	20	37,580	-	37,600

Restricted common stock issued in July 2005 pursuant to share purchase agreement	691,598	692	1,382,504		-	1,383,196
Comprehensive income (loss) Loss, year ended December 31, 2005					(2,813,602)	(2,813,602)
Balance, December 31, 2005	70,064,430	70,065	5,241,651	-	(6,561,373)	(1,249,657)
Restricted common stock issued in January 2006 pursuant to share purchase agreement	374,753	375	505,542	-	-	505,917
Common stock issued in the first quarter of 2006 to Fusion Capital for cash	431,381	431	449,569	-	-	450,000
Common stock issued in the second quarter of 2006 to Fusion Capital for cash	416,303	416	329,584	-	-	330,000
Common stock issued in the third quarter of 2006 to Fusion Capital for cash	758,606	759	584,234	-	-	584,993
Common stock issued in the fourth quarter of 2006 to Fusion Capital for cash	548,371	548	354,455	-	-	355,003
Exercise of stock options	175,000	175	12,075	-	-	12,250

Stock based compensation expenses	-	-	2,607,302	-	-	2,607,302
Comprehensive income (loss)						
Loss, year ended December 31, 2006					(4,654,499)	(4,654,499)
Balance, December 31, 2006	72,768,844	72,769	10,084,412	-	(11,215,872)	(1,058,691)
Common stock issued in the first quarter of 2007 to Fusion Capital for cash	382,000	382	204,619	(45,001)		160,001
Stock based compensation expenses			347,458			347,458
Comprehensive income (loss)						
Loss, period ended March 31, 2007					(616,676)	(616,676)
Balance, March 31, 2007	73,150,844	$73,151	$10,636,489	$(45,001)	$(11,832,548)	$(1,167,908)

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

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

CONSOLIDATED STATEMENTS OF CASH FLOWS
for the three months ended March 31, 2007 and 2006
and from inception (October 21, 1997) to March 31, 2007
(Unaudited)

(Expressed in U.S. Dollars)	March 31, 2007	March 31, 2006	From inception (October 21, 1997) to March 31, 2007
Cash flows from (used in) operating activities			
Net Loss	$(738,980)	$(732,439)	$(11,954,852)
Adjustments for items not involving cash:			
Depreciation	3,811	740	15,145
Common stock issued for services	-	-	861,100
Common stock issued as stock offering costs	-	505,917	1,926,713
Stock compensation expenses	469,762	-	3,077,064
Change in assets and liabilities			
Increase in prepaid expenses	(175)	(1,660)	(3,950)
(Decrease) Increase in accounts payable	(72,907)	(35,622)	97,170
(Decrease) Increase in interest payable - related party	16,462	(3,953)	174,997
	(322,027)	(267,017)	(5,806,613)
Cash flows used in investing activities			
Purchase of property and equipment	(2,834)	-	(37,427)
	(2,834)	-	(37,427)
Cash flows from financing activities			
	160,001	375,000	4,922,067

Proceed from issuance of common stock, net			
Net proceeds from (Repayment of) promissory notes	-	-	1,010,000
	160,001	375,000	5,932,067
Increase (decrease) in cash and cash equivalents	(164,860)	107,983	88,027
Cash and cash equivalents, beginning of period	252,887	107,263	-
Cash and cash equivalents, end of period	$88,027	$215,246	$88,027
Supplemental disclosure of cash flow information:			
Interest paid in cash	$-	$-	$71,645
Income tax paid in cash	$-	$-	$-
Non-cash Investing and Financing Activities:			
Common stock issued for services	$-	$-	$861,100
Issuance of common stock as stock offering costs	$-	$505,917	$1,926,713

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

HEPALIFE TECHNOLOGIES, INC. AND SUBSIDIARY

(A Development Stage Company)

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

MARCH 31, 2007

(Expressed in US Dollars)

NOTE 1 BASIS OF PRESENTATION GOING CONCERN UNCERTAINITIES

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

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

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

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

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 subsidiary, Phoenix BioSystems, Inc., which was incorporated under the laws of the State of Nevada on June 6, 2006. All significant inter-company transactions and accounts have been eliminated in consolidation.

NOTE 2 STATEMENT OF INFORMATION FURNISHED

The accompanying unaudited interim consolidated financial statements have been prepared in accordance with Form 10-Q instructions and in the opinion of management contains all adjustments (which are of a normal recurring nature) necessary to present fairly the financial position as of March 31, 2007 and December 31, 2006, and the

results of operations for three months ended March 31, 2007 and 2006 and cash flows for the three months ended March 31, 2007 and 2006. These results have been determined on the basis of generally accepted accounting principles and practices in the United States and applied consistently with those used in the preparation of the Company's 2006 Annual Report on Form 10-K.

There have been no pronouncements issued that are not yet effective that would have a material effect on these financial statements.

NOTE 3 - LOSS PER SHARE

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

	Three months ended March 31,	
	2007	2006
Numerator - net loss available to common stockholders	$(738,980)	$(732,439)
Denominator - weighted average number of common shares outstanding	72,883,097	70,428,454
Basic and diluted loss per common share	$(0.01)	$(0.01)

NOTE 4 RELATED PARTY TRANSACTIONS

Management Fees: During the three months ended March 31, 2007, the Company paid management fees of $nil (2006: $3,800) to the directors. There is no management or consulting agreement in effect nor is there an agreement in place to convert debt to equity.

Notes Payable and Accrued Interest: As of March 31, 2007, notes payable of $1,010,000 was made up from unsecured loans of $110,000, $700,000 and $200,000, all bearing interest at the rate of 8.50%, due to a director and major shareholder of the Company. The entire amounts of principal and interest accrued are due and payable on demand. Accrued and unpaid interest on these notes at March 31, 2007, amounted to $174,997 (December 31, 2006: $158,535).

Rent: The Company s administrative office is located at 1628 West 1st Avenue, Suite 216, Vancouver, British Columbia, Canada, V6J 1G1. These premises are owned by a private corporation controlled by a director and majority shareholder. The Company pays a monthly rent of C$3,200 effective from April 1, 2006. The Company paid rent of $10,578 (2006: $nil) for the three months ended March 31, 2007.

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

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

NOTE 5 COOPERATIVE AGREEMENT

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

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

- $65,422.80 on or before 8/1/04 (paid in 2004);
- $65,422.80 on or before 11/1/04 (paid in June 2005);
- $65,422.80 on or before 2/1/05 (paid in October 2005);
- $65,422.80 on or before 5/1/05 (paid in October 2005);
- $65,422.80 on or before 8/1/05 (paid in December 2005);
- $65,422.80 on or before 11/1/05 (paid in March 24, 2006);
- $65,422.80 on or before 2/1/06 (paid in June 6, 2006);
- $65,422.80 on or before 5/1/06 (paid in November 16, 2006);
- $65,422.80 on or before 8/1/06 (paid in February 14, 2007); and
- $65,422.80 on or before 11/1/06 (included in accounts payable).

As of March 31, 2007, total payments of $807,828 have been paid/accrued.

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

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

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

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

NOTE 6 LICENSE AGREEMENT

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

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

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

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

As of March 31, 2007, total payment of $57,140 has been paid in relation to the project, including the reimbursement of research expenses of $48,639 to MSU.

NOTE 7 EQUIPMENT

	March 31, 2007	December 31, 2006
Computer equipment	$36,339	$33,504
Furniture and fixtures	1,089	1,089
	37,428	34,593

Less: accumulated depreciation	(15,145)	(11,334)
	$22,283	$23,259

Depreciation expenses charged to operations for the three months ended March 31, 2007 were $3,811 (2006: $740).

NOTE 8 SHARE CAPITAL

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

Under the New Purchase Agreement with Fusion Capital dated January 20, 2006, Fusion Capital has agreed to purchase from the Company up to $15,000,000 of the Company s share of common stock over a thirty month period

after the related registration statement is declared effective by the U.S. Securities and Exchange Commission, subject to earlier termination at the discretion of the Company.

After the registration statement had been declared effective on February 14, 2006, on each trading day during the term of the New Purchase Agreement the Company had the right to sell to Fusion Capital $25,000 of the Company s common stock at a purchase price equal to the lower of (a) the lowest sale price of the common stock on such trading day and (b) the arithmetic average of the three lowest closing sale prices for the common stock during the twelve consecutive trading days immediately preceding the date of purchase, provided that the purchase price will not be less than $0.50 per share. At the Company s option, Fusion Capital can be required to purchase fewer or greater amounts of common stock each month. The Company has the right to control the timing and the number of shares sold to Fusion Capital.

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

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

During the three months ended March 31, 2007, Fusion Capital has purchased 382,000 (2006: 358,423) shares of common stock of the Company for total proceeds of $205,001 (2006: $375,000).

As of March 31, 2007, Fusion Capital has purchased 2,536,661 shares of common stock of the Company for total proceeds of $1,879,997.

NOTE 9 WARRANTS

As of March 31, 2007, there are no outstanding share purchase warrants.

NOTE 10 - STOCK OPTIONS

As of March 31, 2007, the Company had an active stock option plan that provides shares available for options granted to employees, directors and others. Options granted to employees under the Company s option plans generally vest over two to five years or as otherwise determined by the plan administrator. Options to purchase shares expire no later than ten years after the date of grant.

The movement of stock options can be summarized as follows:

	Number of options	Weighted average exercise price	Remaining contractual term	Aggregate intrinsic value
Outstanding at December 31, 2004	11,133,000	$0.48		
Granted	6,000,000	2.86		
Exercised	(285,000)	2.28		
Outstanding at December 31, 2005	16,848,000	1.29		
Granted	8,250,000	0.82		
Exercised	(175,000)	0.07		
Cancelled	(14,573,000)	1.49		
Outstanding at December 31, 2006	10,350,000	0.67		
Granted	2,000,000	0.52		
Cancelled	(10,350,000)	0.67		
Outstanding at March 31, 2007	2,000,000	0.52	9.83 years	$200,000
Exercisable at March 31, 2007	-	$0.52		
Available for grant at March 31, 2007	35,798,000			

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 period ended March 31, 2007 and the exercise price, multiplied by the number of shares) that would have been received by the option holders had all option holders exercised their options on March 31, 2007. This amount changes based on the fair market value of the Company s stock. Total intrinsic value of options exercised was $nil (2006: $nil) for the three months ended March 31, 2007. Weighted average fair value of options granted during the three months ended March 31, 2007 was $0.43 (2006: $nil) per share.

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

	Fair value

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

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

On October 2, 2006, the Company granted options to purchase up to 2,250,000 shares of the Company s common stock at an exercise price of $0.73. The options vest as follows: (a) 1,750,000 options shall vest if and when the Company or a wholly owned subsidiary, or any one current or future medical technology, approved by the Board of Directors is acquired, in whole or in part, or when either the Company or a subsidiary, enters into a strategic collaborative agreement for any one current or future medical technology, approved by the Board of Directors,

provided that the Company s Board of Directors has approved, by written resolution, any such acquisition, sale or agreement; (b) 250,000 stock options shall vest upon the filing of human safety trials for the Company s artificial liver device (or such other Board approved medical technology) in Europe or the equivalent filing in the US; and (c) 250,000 stock options shall vest upon the successful completion of human safety trials for the Company s artificial liver device (or such other Board approved medical technology) in Europe or the equivalent safety trial approval in the US (completion of phase 1).

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

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

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

No additional stock-based compensation expense was recognized as a result of the cancellation and re-issuance of stock options as the fair value of the replacement options is lower than the fair value of the options cancelled.

During the three months ended March 31, 2007, compensation expense of $469,762 (2006: $nil) was recognized for options previously granted and vesting over time. As of March 31, 2007, the Company had $1,028,774 of total unrecognized compensation cost related to unvested stock options, which is expected to be recognized over a period

of 5 years.

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

	Outstanding			Exercisable		
Range of Exercise Prices	Number Outstanding at March 31, 2007	Weighted Average Remaining Contractual Life (Years)	Weighted Average Exercise Price	Number Exercisable at March 31, 2007	Weighted Average Exercise Price	Weighted Average Remaining Contractual Life (Years)
$0.52	2,000,000	9.83	$0.52	-	$0.52	6.11

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

NOTE 11 SUBSEQUENT EVENTS

On April 11, 2007, the Company incorporated a wholly-owned subsidiary company, HepaLife Technologies Ltd., in British Columbia, Canada, for the purpose of streamlining business operations in Canada.

On April 17, 2007, the Company incorporated a wholly-owned subsidiary company, HepaLife Biosystems Inc., in State of Nevada, for the purpose of categorizing operations and accounting associated with the Company s ongoing research and development efforts associated with its patented PICM-19 cell line, artificial liver technologies, and in vitro toxicology testing systems.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors

HepaLife Technologies, Inc.

Boston, Massachusetts

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

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

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

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

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

/S/ PETERSON SULLIVAN PLLC

March 30, 2007

Seattle, Washington

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

CONSOLIDATED BALANCE SHEETS
December 31, 2006, 2005 and 2004

(Expressed in U.S. Dollars)	**2006**	**2005**	**2004**
ASSETS			
Current assets			
Cash	$252,887	$107,263	$613,523
Prepaid expenses	3,775	-	-
Total current assets	256,662	107,263	613,523
Equipment, net (Note 7)	23,259	5,674	828
Total assets	$279,921	$112,937	$614,351
LIABILITIES			
Current			
Accounts payable and accrued liabilities	$170,077	$106,237	$100,243
Accounts payable - related parties (Note 4)	158,535	106,357	53,059
Notes payable - related party (Note 4)	1,010,000	1,150,000	1,000,000
Total liabilities	1,338,612	1,362,594	1,153,302
STOCKHOLDERS' EQUITY			
Stockholders' Deficiency			
Preferred stock: $0.10 par value; Authorized: 1,000,000			
Issued and outstanding: none	-	-	-
Common stock: $0.001 par value; Authorized: 300,000,000			

Issued and outstanding: 72,768,844 (2005: 70,064,430)	72,769	70,065	67,818
Additional paid-in capital	10,084,412	5,241,651	3,141,002
Loss accumulated during the development stage	(11,215,872)	(6,561,373)	(3,747,771)
Total stockholders' deficiency	(1,058,691)	(1,249,657)	(538,951)
Total liabilities and stockholders' deficiency	$279,921	$112,937	$614,351

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

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

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

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

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

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

HEPALIFE TECHNOLOGIES, INC. AND SUBSIDIARY

(A Development Stage Company)

CONSOLIDATED STATEMENT OF STOCKHOLDERS' DEFICIENCY

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

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

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

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

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

Loss, year ended December 31, 2004	-	-	-	(1,435,613)	(1,435,613)
Balance, December 31, 2004	67,817,832	67,818	3,141,002	(3,747,771)	(538,951)
Common stock issued pursuant to exercise of stock options in March 2005 at $3.10 per share	50,000	50	154,950	-	155,000
Common stock issued pursuant to exercise of stock options in May 2005 at $2.11 per share	45,000	45	94,905	-	94,950
Common stock issued pursuant to exercise of stock options in June 2005 at $2.11 per share	100,000	100	210,900	-	211,000
Common stock issued pursuant to exercise of stock options in October 2005 at $2.11 per share	40,000	40	84,360	-	84,400
Common stock issued pursuant to exercise of stock options in March 2005 at $2.11 per share	50,000	50	105,450	-	105,500
Common stock issued pursuant to exercise of share purchase warrants in March 2005 at $0.025 per share	1,250,000	1,250	30,000	-	31,250
Restricted common stock issued in June 2005 pursuant to share purchase agreement	20,000	20	37,580	-	37,600
Restricted common stock issued in July 2005 pursuant to share purchase agreement	691,598	692	1,382,504	-	1,383,196

Comprehensive income (loss)					
Loss, year ended December 31, 2005				(2,813,602)	(2,813,602)
Balance, December 31, 2005	70,064,430	70,065	5,241,651	(6,561,373)	(1,249,657)

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

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

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

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

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

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

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

HEPALIFE TECHNOLOGIES, INC.

(A Development Stage Company)

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2006 AND 2005

(Expressed in US Dollars)

NOTE 1 BASIS OF PRESENTATION GOING CONCERN UNCERTAINITIES

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

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

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

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

NOTE 2 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

(a) Principles of Accounting

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

(b) Principles of Consolidation

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

consolidation.

(c) Use of Estimates

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

(d) Cash and Cash Equivalents

The Company considers all highly liquid instruments purchased with an original maturity of three months or less to be cash equivalents. The Company did not have any cash equivalents for the year ended December 31, 2006, 2005 and 2004. The Company occasionally has cash deposits in excess of insured limits.

(e) Equipment and Depreciation

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

Computer equipment - 2 years

Furniture and fixture - 8 years

Repairs and maintenance expenses are charged to operations as incurred.

(f) Research and Development Costs

Research and development costs are expensed as incurred.

(g) Start-up Costs

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

(h) Income Taxes

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

(i) Earnings (Loss) Per Share

Basic earnings (loss) per share is based on the weighted average number of common shares outstanding. Diluted earnings (loss) per share is based on the weighted average number of common shares outstanding and dilutive common stock equivalents. Basic earnings (loss) per share is computed by dividing income/loss (numerator) applicable to common stockholders by the weighted average number of common shares outstanding (denominator) for the period. All earnings (loss) per share amounts in the financial statements are basic earnings or loss per share,

as defined by SFAS No. 128, *Earnings Per Share.* Diluted earnings (loss) per share does not differ materially from basic earnings (loss) per share for all periods presented. Convertible securities that could potentially dilute basic earnings per share in the future, such as options and warrants, are not included in the computation of diluted earnings or loss per share because to do so would be antidilutive. All per share information is adjusted retroactively to reflect stock splits and changes in par value.

(j) Advertising Expenses

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

(k) Stock-Based Compensation

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

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

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

	2005	2004
Net loss as reported:	$(2,813,602)	$(1,435,613)
Stock-based employee compensation expense as determined under the fair value based method	(10,531,993)	(901,242)
Pro-forma, net loss	$(13,345,595)	$ (2,336,855)
Net loss per share - basic and diluted:		
As reported	$ (0.04)	$ (0.02)
Pro-forma	$ (0.19)	$ (0.04)

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

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

(l) Comprehensive Income

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

(m) Foreign Currency Translation

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

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

(n) Intangible Assets

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

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

(o) Impairment of Long-Lived Assets

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

(p) Fair Value of Financial Instruments

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

(q) Accounting for Derivative Instruments and Hedging Activities

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

gain or loss is recognized in income in the period of change.

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

(r) Related Party Transactions

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

(s) Stock Offering Costs

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

(t) New Accounting Pronouncements

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

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

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

NOTE 3 - LOSS PER SHARE

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

NOTE 4 RELATED PARTY TRANSACTIONS

Management Fees: During the year ended December 31, 2006, the Company paid management fees of $10,800 (2005: $11,300, 2004: $9,500) to the directors. There is no management or consulting agreement in effect nor is there an agreement in place to convert debt to equity. Included in accounts payable related parties at December 31, 2006 are management fees of $nil (2005: $27,000, 2004: $28,600).

Notes Payable and Accrued Interest: During the year ended December 31, 2006, the Company made a partial repayment of $140,000 to the outstanding notes payable. As of December 31, 2006, notes payable of $1,010,000 was made up from unsecured loans of $110,000, $700,000 and $200,000, all bearing interest at the rate of 8.50%, due to a director and major shareholder of the Company. The entire amounts of principal and interest accrued are due and payable on demand. Accrued and unpaid interest on these notes at December 31, 2006, amounted to $153,829 (2005: $78,301, 2004: $nil).

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

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

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

NOTE 5 COOPERATIVE AGREEMENT

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

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

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

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

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

The agreement is for the purpose of funding salaries, equipment, travel and other indirect costs of one post-doctoral researcher, one support scientist, and one technician. The terms of the agreement require the interaction of the Company with ARS personnel on the technical details involved with pig liver cell culture development, providing

the necessary funds for the purpose above, preparing and filing any patent applications, and reviewing reports and implementing procedures for the development of an artificial liver device utilizing the pig liver cell line. ARS s responsibilities include hiring the post-doctoral research associate for a two-year period, providing laboratory and office space for the research associate, providing experimental animals (pigs) and slaughter facilities, conducting the research, preparing progress reports on project objectives, and preparing and submitting technical reports for publication.

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

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

NOTE 6 LICENSE AGREEMENT

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

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

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

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

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

NOTE 7 EQUIPMENT

	2006	2005	2004
Computer equipment	$33,504	$9,392	$3,471
furniture and fixtures	1,089	1,089	1,089
	34,593	10,481	4,560
Less: accumulated depreciation	(11,334)	(4,807)	(3,732)
	$23,259	$5,674	$828

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

NOTE 8 SHARE CAPITAL

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

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

After the registration statement had been declared effective on February 14, 2006, on each trading day during the term of the New Purchase Agreement the Company had the right to sell to Fusion Capital $25,000 of the Company s common stock at a purchase price equal to the lower of (a) the lowest sale price of the common stock on such trading day and (b) the arithmetic average of the three lowest closing sale prices for the common stock during the twelve consecutive trading days immediately preceding the date of purchase, provided that the purchase price will not be less than $0.50 per share. At the Company s option, Fusion Capital can be required to purchase fewer or greater amounts of common stock each month. The Company has the right to control the timing and the number of shares sold to Fusion Capital.

The Company shall always have the right at any time to decrease the amount of the daily purchase amount by delivering written notice to the buyer which notice shall specify the new daily purchase amount. The decrease in the daily purchase amount shall become effective one trading day after receipt by the buyer of the daily purchase amount decrease notice. The Company shall have the right (but not the obligation) to increase the amount of the daily purchase amount in accordance with the terms and conditions set forth in the Common Stock Purchase Agreement by delivering written notice to the buyer stating the new amount of the daily purchase amount. With respect to increases in the daily purchase amount above the original daily purchase amount, as the market price for the Common Stock increases the Company shall have the right from time to time to increase the daily purchase amount as follows. For every $0.10 increase in threshold price above $1.00 (subject to equitable adjustment for any reorganization, recapitalization, non-cash dividend, stock split or other similar transaction), the Company shall have the right to

increase the daily purchase amount by up to an additional $2,500 in excess of the original daily purchase amount.

Threshold price for purposes hereof means the lowest sale price of the Common Stock during the five (5) consecutive trading days immediately prior to the submission to the buyer of a daily purchase amount increase notice (subject to equitable adjustment for any reorganization, recapitalization, non-cash dividend, stock split or other similar transaction). For example, if the threshold price is $1.50, the Company shall have the right to increase the daily purchase amount to up to $37,500 in the aggregate. If the threshold price is $2.50, the Company shall have the right to increase the daily purchase amount to up to $62,500 in the aggregate.

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

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

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

NOTE 9 WARRANTS

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

	Number of warrants	Weighted average exercise price
Balance, December 31, 2003	4,700,000	$0.025
Exercised	(2,000,000)	0.025
Balance, December 31, 2004	2,700,000	0.025
Exercised	(1,250,000)	0.025
Expired	(1,450,000)	0.025
Balance, December 31, 2006 and 2005	-	

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

NOTE 10 - STOCK OPTIONS

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

The movement of stock options can be summarized as follows:

	Number of options	Weighted average exercise price	Remaining contractual term	Aggregate intrinsic value
Outstanding at December 31, 2003	12,755,000	$0.52		

Exercised	(1,622,000)	0.83		
Outstanding at December 31, 2004	11,133,000	0.48		
Granted	6,000,000	2.86		
Exercised	(285,000)	2.28		
Outstanding at December 31, 2005	16,848,000	1.29		
Granted	8,250,000	0.82		
Exercised	(175,000)	0.07		
Cancelled	(14,573,000)	1.49		
Outstanding at December 31, 2006	10,350,000	0.67	8.76 years	$1,029,000
Exercisable at December 31, 2006	5,700,000	$0.56	8.14 years	$1,029,000
Available for grant at December 31, 2006	27,448,000			

The aggregate intrinsic value in the table above represents the total pretax intrinsic value for all in-the-money options (i.e. the difference between the Company s closing stock price on the last trading day of 2006 and the exercise price, multiplied by the number of shares) that would have been received by the option holders had all option holders exercised their options on December 31, 2006. This amount changes based on the fair market value of the Company s stock. Total intrinsic value of options exercised was $172,700 (2005: $57,050, 2004: $4,861,930) for the year ended December 31, 2006. Weighted average fair value of options granted during the year ended December 31, 2006 was $0.49 (2005: $1.75, 2004: $nil) per share.

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

follows:

	Shares	Fair value per share
Outstanding at December 31, 2003	4,833,333	$0.63
Granted during 2004	-	-
Vested during 2004	(4,833,333)	0.63
Outstanding at December 31, 2004	-	$-
Granted during 2005	6,000,000	1.75
Vested during 2005	(6,000,000)	(1.75)
Outstanding at December 31, 2005	-	-
Granted during 2006	8,250,000	$0.49
Vested during 2006	(3,600,000)	0.47
Outstanding at December 31, 2006	4,650,000	0.51

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

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

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

On October 2, 2006, the Company granted options to purchase up to 2,250,000 shares of the Company s common stock at an exercise price of $0.73. The options vest as follows: (a) 1,750,000 options shall vest if and when the Company or a wholly owned subsidiary, or any one current or future medical technology, approved by the Board of Directors is acquired, in whole or in part, or when either the Company or a subsidiary, enters into a strategic collaborative agreement for any one current or future medical technology, approved by the Board of Directors,

provided that the Company s Board of Directors has approved, by written resolution, any such acquisition, sale or agreement; (b) 250,000 stock options shall vest upon the filing of human safety trials for the Company s artificial liver device (or such other Board approved medical technology) in Europe or the equivalent filing in the US; and (c) 250,000 stock options shall vest upon the successful completion of human safety trials for the Company s artificial liver device (or such other Board approved medical technology) in Europe or the equivalent safety trial approval in the US (completion of phase 1).

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

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

The 2,250,000 employee stock options issued on October 1, 2006 were cancelled effective January 25, 2007 and

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

During the year ended December 31, 2006, compensation expense of $2,607,302 (2005: $nil, 2004: $nil) was recognized for options previously granted and vesting over time. As of December 31, 2006, the Company had $1,450,199 of total unrecognized compensation cost related to unvested stock options, which is expected to be recognized over a period of 5 years.

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

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

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

NOTE 11 INCOME TAXES

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

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

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

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

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

A reconciliation between the statutory federal income tax rate (34%) and the effective rate of income tax expense for 2006, 2005 and 2004 is as follows:

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

NOTE 12 SUBSEQUENT EVENT

On January 25, 2007, the Company terminated the 2,250,000 stock options previously granted to the President and Chief Executive Officer, Mr. Frank Menzler and simultaneously issued 2,000,000 new stock options to Mr. Menzler.

The stock options were issued pursuant to the Company s 2001 Incentive Stock Option Plan.

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

ITEM 13. OTHER EXPENSES OF ISSUANCE AND DISTRIBUTION

The following table sets forth estimated expenses expected to be incurred in connection with the issuance and distribution of the securities being registered.

Securities and Exchange Commission Registration Fee	$161
Accounting Fees and Expenses	$3,000
Legal Fees and Expenses	$40,000
Other	$2,000
TOTAL	**$45,161**

All amounts except the Securities and Exchange Commission registration fee are estimated. No portion of the expenses associated with this offering will be borne by the selling stockholders.

ITEM 14. INDEMNIFICATION OF OFFICERS AND DIRECTORS

The Florida Business Corporation Act, or FBCA, permits a Florida corporation to 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.

The FBCA permits a Florida corporation 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.

The FBCA provides that any indemnification made under the above provisions, unless pursuant to a court 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, the FBCA provides that 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.

Notwithstanding the foregoing, the FBCA provides, in general, that no director shall be personally liable for monetary damages to our company or any 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.

The FBCA further provides that the indemnification and advancement of payment provisions contained therein are not exclusive and it specifically empowers a corporation 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 intend to obtain such insurance.

Insofar as indemnification for liabilities arising under the Securities Act of 1933, as amended (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.

ITEM 15. RECENT SALES OF UNREGISTERED SECURITIES

Except as otherwise noted, all of the following shares were issued and options and warrants granted pursuant to the exemption provided for under Section 4(2) of the Securities Act, as a transaction not involving a public offering, and/or Regulations D and S as promulgated under said act. Except as noted, no commissions or finders fees were paid, and no underwriter participated, in connection with any of these transactions. Each such issuance was made pursuant to individual contracts which are discrete from one another and are made only with persons who were sophisticated in such transactions and who had knowledge of and access to sufficient information about us to make an informed investment decision. Among this information was the fact that the securities were restricted securities.

On April 26, 2002, our board of directors authorized the issuance of 2,160,000 restricted common shares at a price of $0.05 per share in exchange for the satisfaction of $108,000 due for management fees owed to Mr. Harmel S. Rayat, a director and majority stockholder. The registrant believes that the offer and sale of these shares were exempt from the registration requirements of the Securities Act by virtue of Section 4(2) thereof and Regulation S as promulgated under the Securities Act.

On July 25, 2002, our board of directors agreed to issue 2,390,000 restricted shares of our common stock at a price of $0.05 per share in exchange for investor relations services valued at $119,500 to EquityAlert.com, Inc., a wholly owned subsidiary of Innotech Corporation. Mr. Rayat was at the time, also a director and majority stockholder of Innotech Corporation. The registrant believes that the offer and sale of these shares were exempt from the registration requirements of the Securities Act by virtue of Section 4(2) thereof.

On December 18, 2002, the board of directors authorized the issuance of 1,920,000 restricted common shares at a price of $0.05 per share in exchange for the satisfaction of $84,000 due for management fees due to Mr. Rayat. The registrant believes that the offer and sale of these shares were exempt from the registration requirements of the Securities Act by virtue of Section 4(2) thereof and Regulation S as promulgated under the Securities Act.

On November 3, 2003, we issued an aggregate of 7,300,000 shares to three individuals for $0.025 per share or an aggregate consideration of $182,500 pursuant to an exercise of outstanding warrants. The warrants were issued as part of an offering completed by us on March 19, 1999 in which we sold 3,000,000 units, each consisting of one share of common stock and one warrant to purchase one share of common stock at $0.10. Following the July 12, 2001 four for one forward stock split, the amounts were adjusted to 12,000,000 shares at a price of $0.025 per share, in order to reflect the stock split. The registrant believes that the offer and sale of these shares were exempt from the registration requirements of the Securities Act by virtue of Section 4(2) thereof and Regulation S as promulgated under the Securities Act.

On December 20, 2004, we issued an aggregate of 2,000,000 shares at a price of $0.025 per share or $50,000 in the aggregate to one person pursuant to the exercise of outstanding warrants. The warrants were issued as part of an offering completed by us on March 19, 1999 in which we sold 3,000,000 units, each consisting of one share of common stock and one warrant to purchase one share of common stock at $0.10. Following the July 12, 2001 four for one forward stock split, the amounts were adjusted to 12,000,000 shares at a price of $0.025 per share, in order to reflect the stock split. The registrant believes that the offer and sale of these shares were exempt from the registration requirements of the Securities Act.

On June 28, 2005, we issued 20,000 restricted shares of common stock to Fusion Capital Fund II,

LLC pursuant to a confidential term sheet; on July 8, 2005, we issued 691,598 restricted shares of common stock to Fusion Capital Fund II, LLC to satisfy the commitment share obligation under the July 8, 2005 common stock purchase agreement; and on January 20, 2006, we issued an additional 374,753 restricted shares of common stock to Fusion Capital Fund II, LLC to satisfy the commitment share obligation under the January 20, 2006, common stock purchase agreement. The January 20, 2006 common stock purchase agreement was terminated by us on May 11, 2007. We believe that the offer and sale of these securities (and the delivery of the common stock purchase agreement) were exempt from the registration requirements of the Securities Act by virtue of Section 4(2) thereof and Regulation D as promulgated under the Securities Act.

On May 11, 2007, in conjunction with our execution and delivery of the Securities Purchase Agreement with GCA Strategic Investment Fund Limited, we issued a Convertible Note in the principal amount of $2,500,000 and Warrants to purchase 670,000 shares of our common stock to the GCA Strategic, in exchange for $2,125,000 in cash. The Purchaser has represented that it is an accredited investor as defined in Regulation D as promulgated under the Securities Act; accordingly, the issuance was exempt from registration requirements of the Securities Act by virtue of the exemption from such registration afforded by Section 4(2) of the Securities Act and Regulation D as promulgated thereunder.

On April 19, 2007, pursuant to an agreement with Equinox Securities, Inc., we issued a warrant to purchase up to 67,000 shares of our common stock to Equinox Securities, Inc., an NASD member firm. We believe that such issuance was exempt from registration requirements of the Securities Act by virtue of the exemption from such registration afforded by Section 4(2) of the Securities Act and Regulation D as promulgated thereunder.

ITEM 16. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES.

The following exhibits are filed as part of this registration statement:

Exhibit No.

Description

3.1

Amended and Restated Articles of Incorporation, filed March 7, 2000 (1)

3.2

By-laws, filed March 7, 2000 (1)

4.1

Promissory Note between the Company and Harmel S. Rayat, due March 8, 2006 in the principal amount of $250,000.

4.2

Amendment dated January 18, 2006 to the Promissory Note between the Company and Harmel S. Rayat, due March 8, 2006 in the principal amount of $250,000.

4.3

Promissory Note between the Company and Harmel S. Rayat, due September 1, 2006 in the principal amount of $700,000.

4.4

Amendment dated January 18, 2006 to Promissory Note between the Company and Harmel S. Rayat, due September 1, 2006 in the principal amount of $700,000.

4.5

Promissory Note between the Company and Harmel S. Rayat, due December 5, 2006 in the principal amount of $200,000.

4.6

Amendment dated January 18, 2006 to Promissory Note between the Company and Harmel S. Rayat, due December 5, 2006 in the principal amount of $200,000.

4.7

Termination Agreement dated May 11, 2007 with Fusion Capital Fund II, LLC terminating the July 8, 2005 common stock purchase agreement.

4.8

Securities Purchase Agreement dated May 11, 2007 with GCA Strategic Investment Fund Limited.

4.9

Convertible Note Dated May 11, 2007 issued to GCA Strategic Investment Fund Limited.

4.10

Registration Rights Agreement dated May 11, 2007 with GCA Strategic Investment Fund Limited.

5.1

Opinion of Counsel. *

10.1

Cooperative Research and Development Agreement between the Company and the USDA s Agricultural Research Service (CRADA).

10.2

Amendment No. 1 to the CRADA

10.3

Amendment No. 2 to the CRADA

10.4

Amendment No. 3 to the CRADA

10.5

MSU License Agreement

10.6

MSU Sponsored Research Agreement

10.7

2001 Incentive Stock Option Plan, filed May 8, 2003 (2)

10.8

Agreement date April 19, 2007 with Equinox Securities, Inc.

10.9

Grant of $0.52 stock options to Mr. Frank Menzler

10.10

Advisory Board Agreement dated July 8, 2004 between the Company and Dr. Michael Ott.

10.11

Advisory Board Agreement dated May 15, 2007 between the Company and Dr. Paul Coussens

10.12

Advisory Board Agreement dated January 9, 2007 between the Company and Dr. Joerg Gerlach.

10.13

Employment Agreement Dated October 1, 2006 between the Company and Mr. Frank Menzler.

23.1

Consent of Sierchio Greco & Greco, LLP (Included in Exhibit 5.1 hereto).

23.2

Consent of Peterson Sullivan, PLLC dated June 7, 2007

Notes:

* To be filed with amendment

(1) The documents identified are incorporated by reference from the Company's Registration Statement on Form 10-SB12G (No. 000-29819).

(2) Incorporated by reference from the Company's Registration Statement on Form S-8 (No. 333-105083).

ITEM 17. UNDERTAKINGS

The undersigned registrant hereby undertakes:

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

(i) to include any prospectus required by Section 10(a)(3) of the Securities Act;

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

(iii) to include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;

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

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

(4) For purposes of determining liability under the Securities Act to any purchaser:

(i) if the registrant is relying Rule 430B,

(A)

Each prospectus filed by the registrant pursuant to Rule 424(b)(3) shall be deemed to be part of the registration statement as of the date the filed prospectus was deemed part of and included in the registration statement; and

(B)

Each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5), or (b)(7) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule

415(a)(1)(i), (vii), or (x) for the purpose of providing the information required by section 10(a) of the Securities Act shall be deemed to be part of and included in the registration statement as of the earlier of the date such form is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer, and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the registration statement relating to the securities in the registration statement to which that prospectus relates, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof. Provided, however, that no statement made in a registration statement or prospectus that is part of the registration or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such effective date, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such effective date; or

(ii) If the Registrant is subject to Rule 430C, each prospectus filed pursuant to Rule 424(b) as part of a registration statement relating to an offering, other than registration statements relying on Rule 430B or other that prospectuses filed in reliance on Rule 430A, shall be deemed to be part of and included in the registration statement as of the date it is first used after effectiveness. Provided, however, that no statement made in a registration statement or prospectus that is part of the registration or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such first use, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such date of first use.

(5)

That for the purpose of determining liability of the registrant under the Securities Act to any purchaser in the initial distribution of the securities:

The undersigned registrant undertakes that in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:

(i)

Any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424;

(ii)

Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant;

(iii)

The portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and

(iv)

Any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the registrant pursuant to the provisions described under Item 24 above, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is

asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the registrant has duly caused this Registration Statement to be signed on our behalf by the undersigned, thereunto duly authorized, in Boston, Massachusetts, on this 11th day of June, 2007.

HepaLife Technologies, Inc.

By: /s/ Frank Menzler

Frank Menzler

President, Chief Executive Officer,

Director

By: /s/ Harmel S. Rayat

Harmel S. Rayat

Chief Financial Officer and Principal Accounting Officer

Director

Pursuant to the requirements of the Securities Act of 1933, the following persons in the capacities and on the dates indicated have signed this Form S-1 Registration Statement:

Signature

Title

Date

/s/ Javier Jimenez

Director

June 11, 2007

Javier Jimenez

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Harmel S. Rayat his true and lawful attorney-in-fact and agent, with full power of substitution and resubstitution for him and in his name, place and stead, in any and all capacities, to sign any and all amendments (including post-effective amendments) to this Registration Statement, and any subsequent registration statements pursuant to Rule 462 of the Securities Act of 1933 and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorney-in-fact and agent full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that attorney-in-fact or his substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this registration statement has been signed by the following persons in the capacities and on the dates indicated.

/s/ Frank Menzler

Date: June 11, 2007

Frank Menzler

President, Chief Executive Officer,

Director

/s/ Javier Jimenez

Date: June 11, 2007

Javier Jimenez

Director

HepaLife Technologies, Inc.

Registration Statement on Form S-1

Index to Exhibits Filed as Part of This Registration Statement

Exhibit No.	**Description**
3.1	Amended and Restated Articles of Incorporation, filed March 7, 2000 (1)
3.2	By-laws, filed March 7, 2000 (1)
4.1	Promissory Note between the Company and Harmel S. Rayat, due March 8, 2006 in the principal amount of $250,000.
4.2	Amendment dated January 18, 2006 to the Promissory Note between the Company and Harmel S. Rayat, due March 8, 2006 in the principal amount of $250,000.
4.3	Promissory Note between the Company and Harmel S. Rayat, due September 1, 2006 in the principal amount of $700,000.
4.4	

Amendment dated January 18, 2006 to Promissory Note between the Company and Harmel S. Rayat, due September 1, 2006 in the principal amount of $700,000.

4.5

Promissory Note between the Company and Harmel S. Rayat, due December 5, 2006 in the principal amount of $200,000.

4.6

Amendment dated January 18, 2006 to Promissory Note between the Company and Harmel S. Rayat, due December 5, 2006 in the principal amount of $200,000.

4.7

Termination Agreement dated May 11, 2007 with Fusion Capital Fund II, LLC terminating the July 8, 2005 common stock purchase agreement.

4.8

Securities Purchase Agreement dated May 11, 2007 with GCA Strategic Investment Fund Limited.

4.9

Convertible Note Dated May 11, 2007 issued to GCA Strategic Investment Fund Limited.

4.10

Registration Rights Agreement dated May 11, 2007 with GCA Strategic Investment Fund Limited.

5.1

Opinion of Counsel. *

10.1

Cooperative Research and Development Agreement between the Company and the USDA s Agricultural Research Service (CRADA).

10.2

Amendment No. 1 to the CRADA

10.3

Amendment No. 2 to the CRADA

10.4

Amendment No. 3 to the CRADA

10.5

MSU License Agreement

10.6

MSU Sponsored Research Agreement

10.7

2001 Incentive Stock Option Plan, filed May 8, 2003 (2)

10.8

Agreement date April 19, 2007 with Equinox Securities, Inc.

10.9

Grant of $0.52 stock options to Mr. Frank Menzler

10.10

Advisory Board Agreement dated July 8, 2004 between the Company and Dr. Michael Ott.

10.11

Advisory Board Agreement dated May 15, 2007 between the Company and Dr. Paul Coussens

10.12

Advisory Board Agreement dated January 9, 2007 between the Company and Dr. Joerg Gerlach.

10.13

Employment Agreement Dated October 1, 2006 between the Company and Mr. Frank Menzler.

23.1

Consent of Sierchio Greco & Greco, LLP (Included in Exhibit 5.1 hereto).

23.2

Consent of Peterson Sullivan, PLLC dated June 7, 2007

Notes:

* To be filed with amendment

(1) The documents identified are incorporated by reference from the Company's Registration Statement on Form 10-SB12G (No. 000-29819).

(2) Incorporated by reference from the Company's Registration Statement on Form S-8 (No. 333-105083).