

## **HepaLife Achieves Major Milestone in Development of Artificial Liver Device**

**HepaLife's proprietary Bioreactor system achieves early success using Company's patented PICM-19 liver cells; successfully replicates vital human liver functions**

**Boston, MA – April 30, 2007** - HepaLife Technologies, Inc. (OTCBB: HPLF) (FWB: HL1) (WKN: 500625), developing the first-of-its-kind artificial liver device, today announced favorable early test results of the Company's proprietary bioreactor system, the main mechanical component of an artificial liver device, which successfully replicated the human liver's key function – removal of toxic ammonia and synthesis of urea.

In early tests of HepaLife's proprietary bioreactor, the Company's patented PICM-19 liver cells were seeded inside the system. Over a 14-day period, the PICM-19 cells successfully remained contact-inhibited, an important indicator of normal cell growth. The cells further differentiated into hepatocytes (liver cells) with normal structure and morphology. Most importantly, HepaLife's proprietary bioreactor and PICM-19 cell line system was able to remove toxic ammonia and synthesize urea. This ability is vital to successfully replicating the human liver's function in an artificial liver device.

In contrast, conventional cell systems may not remain contact-inhibited, and as such, become tumorigenic or cancerous. Additionally, unlike PICM-19 liver cells inside the bioreactor system, other traditional cell lines may not differentiate into liver cells, or retain normal morphology after growth. Notably, distinct from other cell lines, HepaLife's PICM-19 cell line is the only known, embryonic liver stem cell line of its kind with the ability to produce substantial amounts of urea, in an in vitro system.

“These successful test results serve as early validation of our bioreactor system and cell line, which earlier this month, significantly outperformed the world's most widely-used human liver cell line,” explained Mr. Frank Menzler, President and CEO of HepaLife Technologies, Inc.

(View HepaLife's April 10, 2007 press release, announcing Company's PICM-19 cells mimic human liver's responses, and significantly outperform world's most widely-used liver cell line:

<http://www.hepalife.com/20070410-1.html.php> )

“Together, the strong performance of our PICM-19 liver cells, and early success of our bioreactor system, clearly mark significant strides in our development of a bioartificial liver device, able to replicate human liver functions and support patients with acute liver failure.”

The need for an artificial liver device able to remove toxins and improve immediate and long-term survival results is more critical today than ever before. Limited treatment options, a low number of donor organs, the high price of transplants and follow up costs, a growing base of hepatitis, alcohol abuse, drug overdoses, and other factors that result in liver disease all clearly indicate a strong need for an artificial liver device.

The World Health Organization estimates that 10% of the world's population has chronic

liver disease, including 25 million Americans. In China alone, half a million die of the disease each year. Currently 17,000 Americans are awaiting liver transplants, approximately six times greater than the number of patients awaiting heart transplantation. Last year, only 30% of those in need of liver transplantation were transplanted due to a severe lack of donor livers available.

In response, the National Institutes of Health has issued its formal Action Plan for Liver Disease Research, stating in part, "In the area of acute liver failure, the primary goals of research should be in developing means to prevent acute liver failure and ameliorate its course....Most helpful would be an artificial or bioartificial liver assist device that could be used to sustain patients and serve as a bridge to liver transplantation, which is the only effective treatment that is currently available for fulminant hepatic failure."

HepaLife's patented artificial liver device, currently under development, is designed to operate outside the patient's body (extracorporeal). The machine mimics important functions of the human liver by circulating the patient's blood inside the artificial liver device where it is exposed to HepaLife's patented PICM-19 liver cells inside the bioreactor unit.

Once inside the bioreactor unit, researchers anticipate HepaLife's artificial liver device will process the patient's blood-plasma using the Company's PICM-19 liver cells, removing toxins, enhancing metabolic function, and ultimately, imitating the liver's function. In contrast to HepaLife's biological process, conventional filtration or dialysis systems rely on mechanical methods, limited to merely filtering toxins from the blood.

#### ABOUT HEPALIFE TECHNOLOGIES, INC.

HepaLife Technologies, Inc. (OTCBB: HPLF - News; FWB: HL1) (WKN: 500625) is a biotechnology company focused on the identification and development of cell-based technologies and products.

Current cell-based technologies under development by HepaLife include 1) the first-of-its-kind artificial liver device, 2) proprietary in-vitro toxicology and pre-clinical drug testing platforms, and 3) novel cell-culture based vaccine production to protect against the spread of influenza viruses among humans, including potentially the high pathogenicity H5N1 virus.

For additional information, please visit [www.hepalife.com](http://www.hepalife.com).

To receive future press releases via email, please visit:

<http://www.hepalife.com/alerts.php>

To view the full HTML text of this release, please visit:

<http://www.hepalife.com/20070430-1.html.php>

###

## **Legal Notice Regarding Forward-Looking Statements**

No statement herein should be considered an offer or a solicitation of an offer for the purchase or sale of any securities. This release contains forward-looking statements that are based upon current expectations or beliefs, as well as a number of assumptions about future events. Although the Company believes that the expectations reflected in the forward-looking statements and the assumptions upon which they are based are reasonable, it can give no assurance that such expectations and assumptions will prove to have been correct. 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,” “could,” “expect,” “anticipate,” “estimate,” “believe,” “intend,” or “project” or the negative of these words or other variations on these words or comparable terminology. The reader is cautioned not to put undue reliance on these forward-looking statements, as these statements are subject to numerous factors and uncertainties, including but not limited to adverse economic conditions, intense competition, lack of meaningful research results, entry of new competitors and products, adverse federal, state and local government regulation, inadequate capital, unexpected costs and operating deficits, increases in general and administrative costs, termination of contracts or agreements, technological obsolescence of the Company's products, technical problems with the Company's research and products, price increases for supplies and components, litigation and administrative proceedings involving the Company, the possible acquisition of new businesses or technologies that result in operating losses or that do not perform as anticipated, unanticipated losses, the possible fluctuation and volatility of the Company's operating results, financial condition and stock price, losses incurred in litigating and settling cases, dilution in the Company's ownership of its business, adverse publicity and news coverage, inability to carry out research, development and commercialization plans, loss or retirement of key executives and research scientists, changes in interest rates, inflationary factors, and other specific risks. We currently have no commercial products intended to diagnose, treat, prevent or cure any disease. The statements contained in this press release regarding our on going research and development and the results attained by us to-date have not been evaluated by the Food and Drug Administration. There can be no assurance that further research and development, and /or whether clinical trial results, if any, will validate and support the results of our preliminary research and studies. Further, there can be no assurance that the necessary regulatory approvals will be obtained or that HepaLife will be able to develop commercially viable products on the basis of its technologies. In addition, other factors that could cause actual results to differ materially are discussed in the Company's most recent Form 10-Q and Form 10-K filings with the Securities and Exchange Commission. These reports and filings 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>. The Company undertakes no

obligation to publicly release the results of any revisions to these forward looking statements that may be made to reflect the events or circumstances after the date hereof or to reflect the occurrence of unanticipated events.