

Positive Research Findings Accelerate HepaLife's Development of Artificial Liver Device

HepaLife to work with global leader in bioreactor technologies for artificial organs, following favorable results from Company's patented PICM-19 cell line for potential application in an artificial liver device.

Boston, MA – February 20, 2007 - HepaLife Technologies, Inc. (OTCBB: HPLF) (FWB: HL1) (WKN: 500625) today announced the appointment of Stem Cell Systems GmbH (Germany) among plans to accelerate development of a bioreactor system for the Company's first-of-its-kind artificial liver device, following favorable new research outcomes.

HepaLife announced that in ongoing research, scientists have demonstrated that the Company's patented PICM-19 cells have unique characteristics distinct from other cells, and are able to successfully mimic the human liver's response in several important ways. Among other research outcomes, important liver specific activity levels in the PICM-19 cells were up to three times higher than those found in human-derived cell lines frequently used for similar applications.

This functionality is crucial, since according to researchers, the most vital component in an artificial liver device is not the mechanical hardware, but rather, it is the biological cells inside the device which are responsible for truly replicating and performing the functions of the human liver.

"Our cell line sets us apart from anyone else," explained Mr. Frank Menzler, President and CEO of HepaLife Technologies, Inc. "While other cells often develop cancers, lose their ability to function, or simply die, our patented PICM19 cells have successfully retained their liver-like functions, surpassed highly-demanding development objectives, and outperformed other cell lines for use in artificial liver devices.

"As a result, we can now confidently advance our efforts to incorporate these cells into the first-of-its-kind artificial liver device through the development of a bioreactor system, a mechanical component which holds and grows biological cells. I'm honored to welcome Stem Cell Systems to this facet of our project, and look forward to leveraging their special expertise in development of bioreactor systems for artificial organs," concluded Mr. Menzler.

Based in Berlin, Germany, Stem Cell Systems GmbH is a global leader in the design, development, production, and commercialization of advanced, cell-based, medical bioreactors for research and clinical use.

Among Stem Cell Systems' current bioreactor technologies, are applications for cell-based therapies and research in stem cell systems for hybrid organ development. Of note, the company is the developer of a novel, interwoven hollow fiber capillary system which serves as a platform for a wide range of potential medical device products in numerous clinical markets.

Stem Cell Systems GmbH operates clean room facilities for the development and production

of bioreactors for dynamic perfusion 3D cell-culture, important capabilities in bioreactor development for HepaLife.

About HepaLife Technologies, Inc.

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

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

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/20070220-1.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.