

News Release

HepaLife™ Develops New Liver Stem Cell Lines for Bioartificial Liver Device; Data Presented at Scientific Conferences

Boston, MA - June 25, 2008 - HepaLife Technologies, Inc. (OTCBB: HPLF) (FWB: HL1) (WKN: 500625), today announced the development of two new derivative cell lines from the Company's patented PICM-19 liver stem cells for use in HepaLife's first-of-its-kind bioartificial liver device currently under development for the treatment of human liver failure.

"These two cell lines have unique and special functionalities, and make it possible to more closely model the function of the natural liver in our device than before," explained Mr. Frank Menzler, President and CEO of HepaLife Technologies, Inc. "These cell lines further enable us to progress more rapidly in our efforts to scale-up the manufacturing into larger-scale production of our cells, an important requirement for using the cells inside an artificial liver device."

Researchers presented initial data on the Company's new cell lines at the 6th Annual Meeting of International Society for Stem Cell Research in Philadelphia, PA and the 54th American Society of Internal Artificial Organs annual conference in San Francisco, CA, earlier this month.

The two immortalized unipotent porcine liver stem cell lines are: the 'PICM-19H', capable of differentiating exclusively into 'hepatocytes' or liver cells with the ability to express hepatocyte or liver-cell function; and, the 'PICM-19B', capable of differentiating exclusively into bile duct cells with the ability to express bile duct cell function.

In ongoing tests, scientists have confirmed that HepaLife's PICM-19H cells favorably differentiate into hepatocytes as evidenced by their 'morphology', or form and structure. The PICM-19H also express the most important liver functions key to replicating the human liver, expressing hepatocyte functions such as Phase I (P450) and Phase II metabolic activity, serum protein synthesis, low gamma-glutamyl transpeptidase (GGT) activity, ammonia clearance and urea synthesis similar to primary adult cells. The cells have demonstrated the ability to successfully retain the highest levels of liver-specific metabolic activity over prolonged periods of time.

The PICM-19B cell line, which differentiates exclusively into functional bile duct cells (cholangiocytes) show that the cells form confluent (complete) cell monolayers in culture, are basolaterally polarized cells exhibiting basal membrane fluid transport, have high GGT activity and have greatly reduced serum protein production.

Intended for the treatment of liver failure, the HepaLife™ Bioartificial Liver device consists of three basic components: (1) a plasma filter, separating the patient's blood into blood plasma and blood cells; (2) the bioreactor, a unit filled with the patented PICM-19 liver stem cell line

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which biologically mimics the liver's function; and (3), the HepaDrive™, a perfusion system for pumping the patient's plasma through the bioreactor while controlling gas supply and temperature for best possible performance of the cells.

ABOUT HEPALIFE TECHNOLOGIES, INC.

Based in Boston, Massachusetts, HepaLife Technologies, Inc. (OTCBB: HPLF - News) (FWB: HL1) (WKN: 500625) is a developer of cell-based medical technologies addressing prevalent human health concerns.

HepaLife is developing the first-of-its-kind bioartificial liver device intended for the treatment of liver failure using the Company's patented PICM-19 liver stem cell line. The HepaLife™ bioartificial liver, currently under development, is designed to serve as a supportive device, either allowing the liver to regenerate upon acute liver failure, or to bridge the patient's liver functions until a transplant is available.

Utilizing its patented liver stem cell line PICM-19, HepaLife is designing testing platforms to improve the pharmaceutical industry's capability to evaluate drug toxicity and possible side-effects before pharmaceutical compounds are commercially distributed.

Any statements contained in this press release regarding our ongoing research and development and the results attained by us to-date have not been evaluated by the Food and Drug Administration.

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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.
