

## **HepaLife's PBS-1 Cells for Influenza Vaccine Production Prove Superior at International Conference**

**HepaLife continues development of the first-of-its-kind artificial liver device using PICM-19 cell line, which successfully mimics important liver-specific metabolic functions.**

**Boston, MA – June 25, 2007** - HepaLife Technologies, Inc. (OTCBB: HPLF) (FWB: HL1) (WKN: 500625) today announced that new data presented at an international influenza research conference demonstrates that HepaLife's patented PBS-1 cell line outperforms current cell technologies at replicating human influenza virus inside its cells. 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.

Data presented at the "Options for the Control of Influenza VI Conference," June 17-23, 2007, in Toronto, Canada, compared human influenza virus replication capabilities of several established cell lines. HepaLife's PBS-1 cell line significantly outperformed today's prevailing cell systems, including VERO (African green monkey kidney cell), MDCK ("Martin-Darby Canine Kidney") and primary chick kidney cells ("CEK").

(Click here to download HepaLife's PBS-1 cell line research results:  
[http://www.hepalife.com/Smith\\_et\\_al-2007\\_-\\_PBS1\\_Poster.pdf](http://www.hepalife.com/Smith_et_al-2007_-_PBS1_Poster.pdf))

"I'm very proud of the efforts that our research team has made in demonstrating the superiority of HepaLife's PBS-1 cells at an international conference dedicated to identifying cutting-edge solutions to influenza," commented Mr. Frank Menzler, President and CEO of HepaLife Technologies, Inc. "I'm especially pleased that our cell line is able to successfully grow targeted human influenza virus where other leading commercial and academically-researched cells lines have either failed to keep up, or are simply unable to do so."

According to test results, HepaLife's PBS-1 cells developed higher influenza 'titers' – or concentration of influenza - than CEK cells. In contrast, MDCK and VERO cells were unable to replicate virus and produce comparable results. Importantly, the tested influenza strains had not been previously adapted to any of the cell lines, including PBS-1 cells.

Unlike VERO and MDCK cells, neither CEK cells nor HepaLife's PBS-1 require the need for exogenous proteases, such as Trypsin, therefore eliminating an additional step in manufacturing. However, unlike CEK cells, the PBS-1 cell line is less prone to dangerous contaminating pathogens which are undesirable, disease-causing micro-organisms.

"Our patented PBS-1 cell line successfully produces more influenza virus at higher concentrations than any other tested cell lines, and is able to eliminate a cumbersome manufacturing step involving exogenous proteases," explained Mr. Menzler. "Our cell line is able to remain free of unwanted pathogens, and above all, can out-live and outperform the only other tested cell line that registered any evident influenza virus levels, the CEK."

CEK cells are a primary cell line, typically unable to survive beyond five generations of growth, or 'passages'. HepaLife's PBS-1 cells are a continuous cell line which has already successfully lived through hundreds of passages.

Importantly, scientists have discovered that the PBS-1 cell line may also be suitable for isolating the influenza virus from respiratory samples for diagnostic testing. According to research findings, nineteen blind influenza virus received from human respiratory samples were successfully identified as type-A influenza using PBS-1 cells.

Entitled “High titer growth of human and avian influenza viruses in an immortalized chick embryo cell line without the need for exogenous proteases,” this new data was presented by Kristen Smith from Michigan State University, Department of Animal Science, Molecular Pathogenesis Laboratory, East Lansing, Michigan.

“The success of our patented PBS-1 cell line for influenza vaccine production alongside the parallel success of our patented PICM-19 cell line for development of the world’s first-of-its-kind artificial liver device, clearly establishes HepaLife’s position as an innovator in the development of new cell-based technologies,” concluded Mr. Frank Menzler.

Recently, HepaLife’s PICM-19 liver cell line for use in an artificial liver device significantly outperformed the world’s most widely used human liver cell line, the HepG2-C3A. In tests designed to measure a crucial function of the liver, HepaLife’s PICM-19 cells successfully synthesized 100% of the ammonia present, almost four times more than HepG2-C3A.

The same tests also demonstrated that PICM-19 cells are able to express high levels of cytochrome P-450 enzymes, a key liver-related function in the detoxification of drugs and xenobiotics. In contrast, HepG2-C3A showed very low or no detectable P450 activity at all.

(View HepaLife’s April 10, 2007 press release and photographs:  
PICM-19 cells mimic liver’s responses; significantly outperform most widely-used liver cell line:  
<http://www.hepalife.com/20070410-1.html.php>)

In previous weeks, HepaLife’s proprietary bioreactor system, the main mechanical component of its patented bioartificial liver device, successfully replicated the liver’s key function – removal of toxic ammonia and synthesis of urea. Researchers consider this ability vital to successfully replicating the human liver’s function in an artificial liver device.

(View HepaLife’s April 30, 2007 press release:  
HepaLife achieves major milestone in development of artificial liver device:  
<http://www.hepalife.com/20070430-1.html.php>)

#### 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).

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the events or circumstances after the date hereof or to reflect the occurrence of unanticipated events.