

HepaLife Surpasses Major Milestone in Cell-Based Vaccine Development for Avian Influenza

HepaLife's patented PBS-1 cells successfully replicate targeted human influenza viruses, the most important step in development of cell-based vaccines to treat infected patients.

Boston, MA – January 22, 2007 - HepaLife Technologies, Inc. (OTCBB: HPLF) (FWB: HL1) (WKN: 500625) today announced that the Company's patented 'PBS-1' cells, under development for avian influenza vaccines, have actively 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.

“This discovery marks a critical success milestone for HepaLife's vaccine development program,” stated Mr. Frank Menzler, President and CEO of HepaLife Technologies, Inc., a cell-based, biotechnology company developing: the first-of-its-kind artificial liver device; in-vitro toxicology and drug testing platforms; and cell-culture based vaccines to protect against the spread of influenza viruses among humans, including potentially the high pathogenicity H5N1 virus.

“I'm very pleased by how well our patented PBS-1 cells have been able to grow and replicate several human influenza virus types,” explained Mr. Menzler. “Growing a particular virus inside a cell line is the key to successfully producing a vaccine against the same virus, using cell-culture.”

Cell-culture based vaccine production with the ability to quickly address prospective mutations in the avian influenza virus is a promising replacement of cumbersome, time-consuming, and costly vaccine production processes which currently rely on chicken eggs. A US Government report issued by the Department of Health and Human Services reiterated earlier warnings of the avian flu's pandemic threat, and among its response recommendations, has urged cell-culture based influenza vaccine production, HepaLife's primary application for its patented 'PBS-1' cell line.

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 picture below shows influenza type B virus growth on HepaLife's PBS-1 cells, four days after the infection. The colored stains (marked by arrows) indicate where PBS-1 cells have been successfully infected and are actively producing the human influenza virus.

(View HepaLife's PBS-1 cells growing human virus:
<http://www.hepalife.com/vaccine-1.html.php>)

“What is especially encouraging is the rapid and vigorous growth of strains that had not been previously adapted to cell culture growth. These strains are usually only grown in embryonated chicken eggs or on primary,



non-immortalized chicken cells,” emphasized Dr. Paul Coussens, a HepaLife Scientific Advisory Board Member and Professor of Molecular Biology and Molecular Virology.

Last month, third-party analysis by the world's leading provider of integrated preclinical support services confirmed that HepaLife's PBS-1 cells are free from exogenous agents, fungi, bacteria, diseases, and potentially harmful viruses. Pathogen-free PBS-1 cells specifically address recently released recommendations in the US Food and Drug Administration's Draft Guidance for Industry for the safe and effective development of a new generation of cell-based vaccines.

(View HepaLife's December 4, 2006 research update on pathogen-free PBS-1 cells: <http://www.hepalife.com/20061204-1.html.php>)

“These positive results are important to our next vaccine development steps, which include the growth of other human influenza strains, already provided to us by the Centers for Disease Control. In addition, we plan to investigate several strains of avian influenza, including the highly pathogenic H5N1 avian flu, using our patented PBS-1 cell line,” concluded Mr. Frank Menzler.

HepaLife's non-mammalian PBS-1 cell line is derived from an immortalized chicken embryo cell, and is being developed for more flexible cell-culture based vaccine production with the ability to quickly address prospective mutations in the avian influenza virus.

Protected by five issued patents, including US patent 5,989,805 (*“Immortal Avian Cell Line to Grow Avian and Animal Viruses to Produce Vaccines”*), HepaLife is developing production methods to make flu vaccines faster, safer and at less cost by means of the Company's patented PBS-1 line of cells.

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.

(View a CBS-affiliate, WWMT, television news story about HepaLife's active cell-based vaccine research: www.hepalife.com/media)

ABOUT HEPALIFE TECHNOLOGIES, INC.

HepaLife Technologies, Inc. (OTCBB: HPLF - News; 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 pathogenic H5N1 virus.

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