

Favorable Research Outcomes Prompt Expansion of HepaLife's Influenza Vaccine Initiative.

Boston, MA – December 18, 2006 – HepaLife Technologies, Inc. (OTCBB: HPLF) (FWB: HL1) (WKN: 500625) today announced plans to expand its influenza vaccine development initiative following favorable research outcomes related to the Company's 'PBS-1' cell line. HepaLife's patented PBS-1 cell line is being developed for application in novel, cell-culture based vaccine production to help protect against the spread of influenza viruses among humans, including potentially the high pathogenicity H5N1 avian flu virus.

"I'm proud to announce that we are actively expanding HepaLife's vaccine development program based on encouraging results from our PBS-1 cell line research, including important outcomes announced earlier this month, which indicate that our cells have successfully achieved a critical milestone related to the FDA's draft guidelines", explained HepaLife President and CEO, Mr. Frank Menzler.

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

Among key findings, the Company announced that independent 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PBS-1 cells specifically address recently released recommendations in the US Food and Drug Administration's (FDA) Draft Guidance for Industry for the safe and effective development of a new generation of cell-based vaccines.

Last month, a US Government report issued by the Department of Health and Human Services (HHS) reiterated earlier warnings of the Avian Flu's pandemic threat, and among its response recommendations, urged cell-culture based influenza vaccine production, HepaLife's primary application for its patented 'PBS-1' cell line.

"Especially exciting are the implications of developing our PBS-1 cell technology for more flexible cell-culture based vaccine production with the ability to quickly address prospective mutations in the avian influenza virus, and replace cumbersome, time-consuming, and costly vaccine production processes which currently rely on chicken eggs."

Current vaccine production methods involve 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.

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 and at less cost by means of the Company's patented PBS-1 line of cells.

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

HepaLife's cell-based vaccine production would eliminate problems created by allergies to egg albumin, and potentially replace expensive influenza diagnostics for avian flu by reducing the time to detection and cost of analysis, critical factors in a large scale influenza surveillance program.

According to the Department of Health and Human Services, "There is no way to know how lethal an H5N1 avian influenza outbreak could be, but a catastrophic scenario — a pandemic of 1918 severity — could cause nearly two million deaths in the United States, and tens, perhaps hundreds, of millions of deaths worldwide."

An earlier report authored by the National Governor's Association considers avian influenza "one of the most deadly human diseases ever reported," projected to infect as many as 90 million Americans or one-third of the population in severe pandemic conditions.

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 pathogenicity H5N1 virus.

At present, HepaLife does not have commercial products intended to diagnose, treat, cure or prevent any disease. The 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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