

HepaLife™ Releases Positive New Research Results For First-of-its-Kind Bioartificial Liver.

HepaLife's patented PICM-19 liver cells show increased liver-specific activity inside Company's bioartificial liver – a significant milestone in development of liver device.

Boston, MA – September 26, 2007 - HepaLife Technologies, Inc. (OTCBB: HPLF) (FWB: HL1) (WKN: 500625), developer of the first-of-its-kind artificial liver device, today announced significant early results of new in-vitro studies involving the Company's patented PICM-19 liver stem cells, which were placed inside its proprietary artificial liver device and were able to favorably produce urea and successfully remove ammonia, a highly toxic by-product which causes brain damage, coma, and even death.

“Today's results demonstrate that, while inside our bioartificial liver device, HepaLife's PICM-19 cells are able to produce substantial amounts of urea and remove toxic ammonia, while remaining healthy, and replicating important liver-like functions,” stated Mr. Frank Menzler, President and CEO of HepaLife. “This is a significant achievement that marks a major milestone in the development of our artificial liver device.

“These new results have certainly exceeded our early performance expectations of the HepaLife bioartificial liver design. Our goal is to now further evaluate the HepaLife bioartificial liver system in-vitro and in-vivo, and continue to move closer to an application with the Food and Drug Administration for our cell-based device.”

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, similar to the functions mimicked by HepaLife's PICM-19 cells in today's research outcomes.

Research data from experiments of the PICM-19 cells inside HepaLife's artificial liver device indicates that the system removed toxic ammonia, and successfully produced significant amounts urea and liver specific protein such as albumin over the entire duration of the study. Most importantly, the production of urea and albumin increased over time, reaching peak levels at termination of the study after two weeks.

In observations of cell replication and growth, researchers confirmed earlier findings where PICM-19 liver cells remained contact-inhibited, an important indicator of normal cell growth, since cells which are not contact-inhibited tend to become cancerous. In contrast, HepaLife's PICM-19 cells inside its liver device system did not develop tumors or become cancerous, but rather, remained non-tumorigenic.

In the same tests, HepaLife's PICM-19 liver stem cells successfully differentiated into hepatocytes (liver cells) displaying normal morphology, an indication of the cells' physical form and structure.

In evaluating the chemical function and overall health of the PICM-19 liver cells inside HepaLife's bioartificial liver system, researchers analyzed levels of lactate and glucose -- indicators of metabolic function -- alongside oxygen and carbon dioxide, respectively. In all cases, these monitored levels remained favorably within targeted parameters throughout the duration of the studies.

“These results suggest that HepaLife's bioartificial liver system is an artificially created, ‘living biosystem’ -- our goal from the early beginning -- with cells that behave as we have long desired for our

artificial liver device,” concluded Mr. Menzler.

Intended for the treatment of liver failure, the HepaLife™ Bioartificial Liver device consists of three basic components: (1) a plasma filter, separating the patients blood into blood plasma and blood cells; (2) the bioreactor, a unit filled with PICM-19 cells which biologically mimic 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.

Incorporating the PICM-19 cell line, HepaLife is developing the first-of-its-kind bioartificial liver. HepaLife's bioartificial liver currently under development, is designed to operate outside the patient's body. The bioartificial liver is envisioned to mimic important functions of the human liver by circulating the patient's blood inside the device, where it is exposed to HepaLife's patented PICM-19 liver stem cells, thus processing the patient's blood-plasma by removing toxins, enhancing metabolic function, and ultimately, imitating the liver's natural function.

ABOUT HEPALIFE TECHNOLOGIES, INC.

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

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 methods for the manufacture of vaccines against H5N1 avian influenza and other viruses.

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