News Release

HepaLife's Bioartificial Liver Dramatically Reduces Toxic Marker for Acute Liver Failure

Boston, MA – February 11, 2008 - HepaLife Technologies, Inc. (OTCBB: HPLF) (FWB: HL1) (WKN: 500625) today announced important, positive results from new in-vitro studies in which the Company's patented PICM-19 liver stem cells were placed inside its proprietary bioartificial liver device and were able to successfully and quickly remove high levels of toxic ammonia within a very short period of time.

"Acute liver failure leads to increased blood ammonia levels. The ammonia is taken up by the brain and can cause brain damage, coma, and even death. Reducing the present high levels of ammonia in those patients as soon as possible is a key target for successful patient treatment and patient recovery," explained Stephen R. Ash, MD., a HepaLife Scientific Advisory Board Member, Physician at Clarian-Arnett Health and Medical Director at Wellbound, Inc. of Lafayette, IN.

When challenged with high amounts of toxic ammonia, present in patients with acute liver failure, HepaLife's bioartificial liver reduced ammonia levels by 75% within less than 24 hours. Published in-vivo clinical data of other systems utilizing liver cells other than HepaLife's patented PICM-19, have only reported ammonia reduction levels between 0 to 44%.

Mr. Frank Menzler, President and CEO of HepaLife Technologies, Inc., explained, "These test findings are especially important because ammonia is a highly dangerous by-product in patients with acute liver failure, and researchers have long considered the efficient removal or reduction of toxic ammonia an important requirement for an artificial liver device intended for human use.

"Our bioartificial liver technology not only removes this ammonia, but importantly, is capable of producing high levels of urea, a feature regarded vital in the biochemical improvement of acute liver failure patients undergoing clinical treatment by way an artificial liver. Our bioartificial liver achieves this essential outcome by making use of HepaLife's patented PICM-19 cells, the only cell line of its kind able to produce such high levels of urea."

Positive Outcomes from Tests of HepaLife's Bioartificial Liver

In recent tests, HepaLife's bioartificial liver reduced levels of toxic ammonia by 75% in fewer than 24 hours, a feature considered necessary to the successful treatment of acute liver failure using an artificial liver.

According to researchers, biochemical improvement as a result of an artificial liver device treatment in clinical application is judged not only by the elimination of ammonia, but also by the production of urea. Importantly, HepaLife's PICM-19 cells synthesized 80% of the ammonia present into urea, the normal pathway of ammonia reduction of the human liver. HepaLife's PICM-19 cell line is the only known liver stem cell line of its kind with this ability to produce substantial amount of urea.

See over for more

During these same tests HepaLife's PICM-19 liver stem cells inside the Company's bioartificial liver maintained differentiated hepatic (liver) function, showing typical hepatocyte morphology -- the characteristics representative of human liver cells -- including cell features such as intercellular canaliculi, extensive Golgi apparatus, endoplasmic reticulum, peroxisomes and mitochondria.

"The performance of our bioartificial liver device is exciting. The rate of ammonia reduction achieved mainly via the natural urea cycle is an important step towards successful clinical application," continued Mr. Menzler. "Furthermore, the ability of our cells to produce substantial amounts of urea while maintaining liver-like function, and preserving liver cell-like characteristics, all clearly establish the superior performance of our PICM-19 cell line inside our bioartificial liver."

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 the patented PICM-19 liver stem cell line 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.

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.

Based in Boston, Massachusetts, HepaLife Technologies, Inc. (OTCBB: HPLF) (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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