Vital Therapies, Inc. (VTL) is a biotherapeutic company developing ELAD®, an extracorporeal human hepatic cell-based liver treatment (hereafter referred to as the ELAD® System or ELAD). ELAD is designed to improve survival in patients with liver failure by providing hepatic support continuously for up to five days. We believe that use of ELAD allows time for the patient's native liver to recover from an acute decompensation, stabilize, and then potentially regenerate, or to maintain the patient until liver transplantation can occur.

The ELAD System incorporates approximately 440 grams of our human liver-derived cells, or VTL C3A cells, contained in four hollow-fiber cartridges, that are combined with disposable components and a reusable delivery device. During treatment with ELAD, blood is drawn from the patient via a central venous line and then passes into the delivery device where plasma ultrafiltrate is isolated. The patient's plasma ultrafiltrate then passes through hollow fibers contained within the four cartridges, where semipermeable fibers permit bidirectional flow between the VTL C3A cells and the ultrafiltrate. In vitro research suggests that VTL C3A cells add proteins to the ultrafiltrate, and may remove substances typically metabolized by the liver. Treatment is expected to consist of a single, continuous session lasting between three and five days, as determined by the treating physician.

Our Proprietary VTL C3A Cells The active ingredient within the ELAD C3A cell cartridges is the hepatoblastoma-derived, continuous C3A cell line (VTL C3A cells), a subclone of the human hepatoblastoma cell line HepG2. VTL C3A cells are maintained in VTL's proprietary cell banks, which have been extensively tested for safety and purity.

VTL C3A cells may help to stabilize patients and restore host defense mechanisms by providing acute-phase response proteins, thereby dampening inflammation, and encouraging liver regeneration by providing soluble factors known to be associated with liver repair. These cells also have the potential to address coagulopathies that are common in alcoholic hepatitis patients, and may help in the restoration of liver function by providing liver-specific metabolism and detoxification capabilities. Furthermore, they can be stored, and shipped worldwide.

As part of ELAD's clinical development program, more than 250 subjects globally have received treatment with the ELAD System through prior clinical trials and a compassionate use program. Although VTI-208, our Phase 3 clinical trial evaluating ELAD in alcohol-induced liver decompensation (AILD), failed to reach either the primary or secondary endpoints, data from pre-specified and post-hoc analyses of this study has shown trends that may indicate a potential to increase survival rates in certain subsets of subjects with liver failure due to acute hepatocellular insult and alcohol use.

The Company is conducting a new Phase 3 trial in AILD, known as VTL-308. The Company enrolled the first subject in VTL-308 in May 2016.

ELAD has received orphan designation in the United States and Europe for the treatment of acute liver failure.

The ELAD System has not been demonstrated to be safe or effective for any indication and is not available for sale in the United States or any other country. CAUTION: Investigational Product. Limited by United States law to investigational use.
SELECTED PUBLICATIONS

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American Type Culture Collection (ATCC), C3A cell line deposit, number CRL-10741

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