# Revolutionizing the way we treat lack of blood flow diseases by using stem cell therapy

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Every year modern medicine makes new breakthroughs that continue to amaze. Today's company has a breakthrough 'stem cell therapy,' designed to regenerate diseased and damaged tissue, focused on patient's with "ischemic" disease (a lack of blood flow) such as limb ischemia or ischemic heart disease (often leading to a heart attack). The company is a winner of the World Economic Forum Technology Pioneer Award.

Ischemic diseases are a huge global problem. For example, ischemic heart disease (also called coronary disease) affects **around 126 million individuals**, which is **approximately 1.72% of the world's population, annually.** Nine million deaths per annum are caused by ischemic heart disease globally. Limb ischemia, often caused by diabetes, smoking, or age, is another huge area in need of innovative and better treatment.

Today's company is stem cell therapy developer, Hemostemix Inc. (TSXV: HEM | OTCQB: HMTXF). Hemostemix's stem cell therapy platform uses the patient's own blood to harvest the stem cells and uses them in a  treatment that helps to restore circulation (blood flow) in damaged tissues.

Hemostemix's leading product, ACP-01, has been used to treat over 500 patients, and it is the subject of a randomized, placebo-controlled, double blind trial of its safety and efficacy in patients with advanced critical limb ischemia (CLI)

who have exhausted all other options to save their limb from amputation.

Hemostemix state on their website:

“Hemostemix’s proprietary platform technology is based on more than 10 years of clinical data demonstrating the ability of our autologous cell product to regenerate diseased and damaged tissue. Our efficient, scalable and cost-effective platform has **the potential to generate therapies for a broad range of ischemic diseases**. ACP-01, our lead clinical stage candidate, is an autologous cell therapy for the treatment of critical limb ischemia. ACP-01 is currently in a Phase 2 clinical trial in Canada and the United States.”

Note: Autologous refers to using the patient’s ‘own’ stem cells.

**ACP-01 testing**

Twelve patients with critical limb ischemia (CLI) and no interventional options were enrolled (10 male, 2 female, mean age 76 years) in an abstract trial test.

Hemostemix quote the results stating:

“Prior to treatment with ACP–01 or placebo, 3 patients had ischemic rest pain, 8 patients had ulceration, and one patient had gangrene. Post treatment, one patient with unremitting rest pain and toe gangrene required a below knee amputation, and one patient with gangrene of the first to third toes required a forefoot amputation. **Healing of ulcers and resolution of ischemic rest pain occurred in the other 10 (83%) patients.** There were no clinically significant safety issues. Outcomes have been maintained for up to 4.5 years (3.5 years for 2 patients, 3 years for 1 and 1 patient died after ulcer healing secondary to congestive heart failure at 6 months).”

**Hemostemix latest development for their leading product ACP-01**

Hemostemix is currently working on the source document verification for their Phase II clinical trials for their lead product 'ACP-01' for the treatment of critical limb ischemia (CLI), peripheral artery disease (PAD), angina, ischemic cardiomyopathy, dilated cardiomyopathy and other conditions of ischemia. The document verification completion is expected to be completed by the end of 2021.

Note: Clinical trials follow a typical series from early, small-scale, Phase 1 studies to late-stage, large scale, Phase 3 studies, followed hopefully by FDA approval.

**Closing remarks**

Hemostemix is revolutionizing the way we treat ischemic disease by using stem cells developed from a patient's own blood. Abstract trials on ACP-01 led to an 83% success rate and the Company is now working towards Phase II trials.

Hemostemix is working towards revolutionizing the way we treat lack of blood flow, ischemic, diseases by using its stem cell therapy and has a market cap of C$11 million,

***Further learning***

- Hemostemix Announces the Second Stem Cell Recipient Interview: One Week to No Chest Pain
- Hemostemix Announces the First of a Series of 2021 Video Interviews with ACP-01 Recipients: What the Successful Compassionate Treatment of Ischemic Cardiomyopathy Looks Like After 13 Years