

BHITS only uses stem cells that have been harvested ETHICALLY from c-section placental material with NO INJURY to the baby or mother. BHITS NEVER uses fetal or embryonic tissue!

Importance of Human Umbilical Cord Mesenchymal Stem Cell Therapy in Patients with COVID-19 Infection

Background. The novel coronavirus (COVID-19) has shown a high mortality rate. The leading cause of mortality appears to be respiratory failure due to complications of COVID-19 pneumonia. Many patients remain hospitalized and on ventilators. It is believed that one of the causes of the severity of lung symptoms in patients with COVID-19 is a cytokine storm (overproduction of immune cells). Human umbilical cord mesenchymal stem cells (hUC-MSCs) are bringing down the level of cytokines, promote the regeneration of damaged tissues and inhibit tissue fibrosis. Published literature and ongoing clinical trials are showing that hUC-MSCs have a significant therapeutic effect on patients with COVID-19 infection. Our affiliate in Wuhan has treated 9 ICU patients with acute Covid-19 disease and 24 with subacute, all are still alive and all improved on the therapy. The study is a 2 month study and will be published upon conclusion. Our FDA Covid-19 studies are based on these Wuhan protocols and have been submitted, awaiting approval.

BHI Therapeutic Sciences (BHITS) is planning to develop hUC-MSC therapy program in the treatment of hospitalized patients with severe COVID-19 pneumonia and continued respiratory disability after acute COVID-19 infection. The development of this treatment will have a great impact on US healthcare.

The United States is facing a significant shortage of lifesaving ventilators due to the coronavirus pandemic. hUC-MSC-based therapies have the potential to transform respiratory failure. The advantages of hUC-MSC-based therapy include the following

- Timely treatment of patients with confirmed symptomatic COVID-19 infection, who are currently not on ventilators, will significantly reduce the chance of development of disease to the stage when ventilator support is necessary.
- Patients with COVID-19 typically stay on ventilators for prolonged periods which increases the likelihood of long-term complications. hUC-MSC-based therapy will significantly reduce the recovery time of the patients with COVID-19 infection, who are on ventilator support.
- The simplicity and safety of hUC-MSCs administration are proven in our multiple clinical studies. hUC-MSCs are administered via simple intravenous injection. The cells can be administered to the patients with COVID-19 infection at their current stay (including nursing homes), without the need for hospitalization. This strategy will be beneficial for the treatment of patients who are under the quarantine, without hospitalization. This will also reduce the spread of infection.
- The coronavirus disease has caused severe pulmonary disability in many patients even after their acute coronavirus infection has resolved. Many patients remain hospitalized and on ventilators. Pulmonary fibrosis may be one of the major complications in COVID-19 patients. Timely treatment of patients with COVID-19 will significantly reduce the chance of complications developed after COVID-19 infection. Clinical studies are showing improved lung function after hUC-MSC therapy in patients with pulmonary fibrosis.

BHITS study aims to evaluate the safety and efficacy of administration hUC-MSCs for the treatment of hospitalized subjects with severe COVID-19 pneumonia and continued respiratory disability after acute COVID-19 infection. These expanded cells are sourced from Wharton's Jelly using an FDA Registered current good manufacturing practice (cGMP), current good tissue practice (cGTP) laboratory.