

HUMAN LIFE CORD JAPAN INC.

Specializing in allogeneic cell therapy applying umbilical cord derived mesenchymal stromal cells (MSCs) that are able to differentiate into a variety of cell types

Nihonbashi Life Science Bldg. 7, 5th Floor
1-9-10 Nihonbashi, Horidomecho
Chuo-ku, Tokyo
103-0012 Japan
<https://humanlifecord.com/en/>

Founded in 2017
President & CEO: HARATA Masamitsu
No. of employees: 21
Type of Ownership: Private
Primary stock exchange: N/A

August 2023: Currently focusing on treatment for rare disorders such as graft-versus-host diseases (GVHD) and for sarcopenia, an aging related illness.

Venture Valuation (VV) interviewed Mr. HARATA Masamitsu, President & CEO.

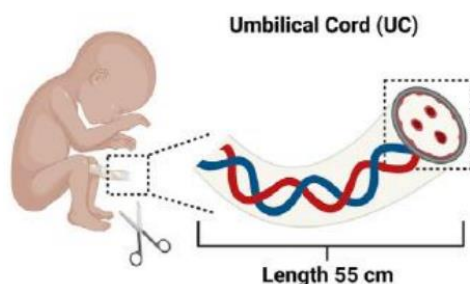


VV: The umbilical cord used to be considered medical waste and disposed of. Licensed by the umbilical cord blood and tissue bank Institute of Medical Science at University of Tokyo (IMSUT CORD), you have access to MSCs for clinical research and development, specifically allogeneic transplants.

Harata: IMSUT CORD collects cord blood and tissue, after informed consent from babies' mothers, to process, culture, freeze, stock, and release cord tissue and blood derived cells for research and clinical uses.

Our license agreement is allogeneic MSCs for developing cell therapy. Umbilical cord cells have the advantage in being obtained by non-invasive means as compared to bone marrow and adipose tissue sources, and do not have the ethical issues of embryonic stem cells.

Also cord blood transplants have a low risk of potential tumor formation as is the case with induced pluripotent stem cells (iPS), low risk of viral contamination, and high cell proliferation capacity.



We have worldwide exclusive rights to know-how for manufacturing, storage, and quality tests methods. In 2021 we established IMSUT-HLC cell production facility in IMSUT CORD/University of Tokyo. This cGMP (current Good

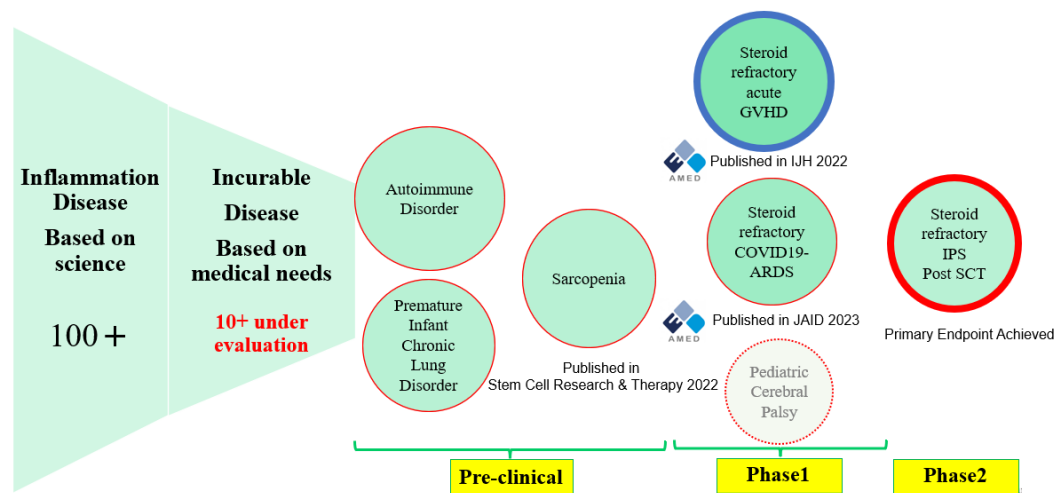
Manufacturing Practice) facility secures the necessary quantity of master cell production.

VV: Your pipeline shows three leading projects: two for immune-mediated complications after hematopoietic stem cell transplantation (HSCT) and one for sarcopenia.

Harata: Acute GVHD, a life-threatening disorder, occurs when immune cells from the donor (the graft) attack the recipient’s cells (the host) after stem cell transplantation.

The project for steroid-refractory idiopathic pneumonia syndrome(IPS) after HSCT is on track for Phase 2, with a view to delivering the product through an accelerated Japan NDA (New Drug Application) for conditional approval (see chart below). The mortality rate for IPS is very high: eight out of 10 patients pass away two months after HSCT. We hope this treatment, the first in the world, will be available to patients soon.

In addition to these initiatives, we are targeting a treatment for sarcopenia, a geriatric condition causing loss of muscle. Causes of sarcopenia seem related to mitochondria dysfunction and age associated inflammation in muscle. So far, healthy diet and physical exercise to increase muscle mass are the only solutions. Around 10 to 20% of people over 60 are estimated to have sarcopenia. As the world population is aging, we believe treating patients suffering from sarcopenia is socially and medically valuable.



VV: Your growth strategy is to collaborate with a leading U.S. blood bank and get FDA approval which allows you to expand your business internationally.

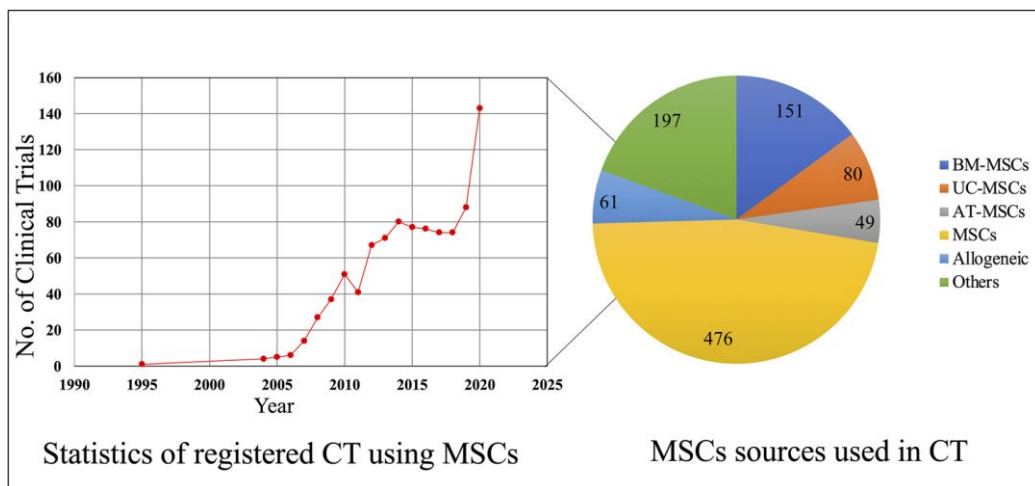
Harata: Recently we signed a collaboration agreement with the New York Blood Center (www.nybc.org), one of the largest community-based, non-profit blood collection and distribution organizations in the U.S. The Center’s CEO is a leader in developing novel methodologies and approaches for umbilical cord blood derived cellular therapies.

The U.S. is globally the biggest market in our field. The New York Blood Center is a suitable partner. We will work together by sharing our patented technology for manufacturing, storage, and quality test methods. In doing so, we will have an opportunity to develop our business worldwide.

VV Comments after the interview:

MSCs can differentiate into a variety of cell types and play an important role in cell therapy. According to “A Brief Overview of Global Trends in MSC-Based Cell Therapy”¹ published on 28 March 2022, a number of registered MSC-based clinical trials has grown significantly since the first trial in 1995.

The chart below shows that the main MSC sources are bone marrow (BM), umbilical cord (UC), and adipose tissue (AT). MSC sources are not disclosed for 476 trials and cell sources are named as allogeneic for 61 trials. Other 197 trials are with placenta, dental pulp, amniotic MSC, etc.



Acquiring bone marrow and adipose tissue requires invasive procedures, embryonic stem cells for clinical use are ethically controversial, and the use of

¹<https://link.springer.com/article/10.1007/s12015-022-10369-1>

iPS potentially causes tumors. Consequently, various applications with umbilical cord derived MSCs have huge potential to grow in the future.²

Human Life CORD Japan Inc. owns know-how for the industrialized mass production and storage of umbilical cord derived MSCs. Once its qualified manufacturing and quality control processes are harmonized both in Japan and the U.S., they may become de facto standard and contribute to advancement of allogeneic umbilical cord derived cell therapies.

Contact

Mariko Hirano, m.hirano (at) venturevaluation.com

Venture Valuation specializes in independent assessment and valuation of technology-driven companies in growth industries, such as the Life Sciences (Biotech, Pharma, and Medtech), ICT, Femtech, Nanotech, Cleantech and Renewable Energy. In addition to valuation products, Venture Valuation offers high-quality, focused information services like the Global Life Sciences Database, Biotechgate.com and this “*Let’s Interview Series*” with companies with interesting technologies and services. We select and interview thriving companies and organizations especially in Switzerland and Japan.

² <https://www.einpresswire.com/article/581057804/stem-cell-umbilical-cord-blood-market-share-growth-statistics-industry-size-development-trend-demand>