

September 14, 2023

Company Name: HEALIOS K.K.
Representative: Hardy TS Kagimoto, Chairman & CEO
(TSE Growth Code: 4593)

Healios eNK Cell Research by Thomas Jefferson University in Metastatic Uveal Melanoma

HEALIO K.K. (“Healios”) is providing its innovative eNK platform for a novel research study on metastatic uveal melanoma at Thomas Jefferson University in Philadelphia. Researchers at the Sidney Kimmel Cancer Center – Jefferson Health will evaluate whether Healios’ allogeneic iPSC cell-derived NK cells with specific functions enhanced by gene editing technology (eNK cells) can control metastatic uveal cancer cell growth in laboratory models of the disease.

At Jefferson, a team led by Dr. Mizue Terai, PhD will pursue research entitled "Immunotherapy of metastatic uveal melanoma using iPSC-derived NK cells" utilizing Healios’ eNK cells in experiments. Dr. Terai’s proposed research was selected for a team research grant from The Melanoma Research Institute of Excellence (MRIE) at Jefferson for the development of novel therapeutics for metastatic uveal melanoma. In addition to providing eNK cells for use in the research, Healios will cooperate with the research and provide necessary technical support, and Healios has entered into a material transfer agreement with Jefferson in this regard.

Uveal melanoma (eye melanoma) is the most common adult primary intra-ocular cancer, and accounts for approximately 5% of all melanomas. Metastatic uveal melanoma most often spreads to the liver.

Dr. Hardy Kagimoto, the Chairman & CEO of Healios, made the following comment: “The Sidney Kimmel Cancer Center—Jefferson Health is one of the leading institutions in the United States for the treatment of metastatic eye cancer. Healios has made a long term commitment to advance innovative therapies for both diseases of the eye and solid cancers. We are honored to be able to work with the clinician-scientists at Jefferson to advance our eNK cells as a potential treatment for metastatic uveal melanoma patients in need.”

As this is an academic research project, there will be no compensation for Healios at this time, and there is no definite impact on Healios’ business performance for the fiscal year ending December 31, 2023. We will promptly announce any matters that should be disclosed in the future.

About Healios’ eNK cells

Healios eNK cells are a gene edited iPSC-NK cell therapy with several functional enhancements achieved through gene-editing including enhanced cytotoxicity towards cancer, improved capability to migrate and infiltrate solid tumors, and the ability to recruit host immune cells. Healios has succeeded in developing eNK cells through its own research and has confirmed that eNK cells have anti-tumor effects in mice engrafted with human lung cancer cells, mice engrafted with human mesothelioma cell and human liver cancer cells. In

[joint research with the National Cancer Center Japan \(“the NCCJ”\)](#) we are evaluating the antitumor effects of eNK cells in a PDX mouse disease model created using the NCCJ’s JPDX samples. Furthermore, Healios is conducting joint research on cancer immunotherapies using eNK cells for hepatocellular carcinoma with [Hiroshima University](#) and for mesothelioma with [Hyogo Medical University](#). Healios is continuing with in vitro and animal testing of its eNK cell therapy in preparation for its first clinical trials. In addition, we are working on the development of a dual CAR-eNK cell product, in which chimeric antigen receptors (CAR) that specifically recognize cancer antigens are introduced into the eNK, with the aim of expanding the application of eNK cells to other solid tumors.

About Thomas Jefferson University and Sidney Kimmel Cancer Center – Jefferson Health
[Thomas Jefferson University](#), home of Sidney Kimmel Medical College and the Kanbar College of Design, Engineering and Commerce, dates back to 1824 and today comprises 10 colleges and four schools offering 200 undergraduate and graduate programs to more than 8,400 students.

Jefferson Health's National Cancer Institute (NCI)-designated Sidney Kimmel Cancer Center is a nationally recognized center for practice-changing discovery and comprehensive cancer treatment, offering a depth and breadth of experience in all aspects of cancer from the laboratory to the clinic. The mission of Sidney Kimmel Cancer Center is to improve the lives of cancer patients and their families through compassion, innovation, and breakthrough discoveries. For more information, visit jeffersonhealth.org/cancer.

About Healios

Healios is Japan’s leading clinical stage biotechnology company harnessing the potential of stem cells for regenerative medicine. It aims to offer new therapies for patients suffering from diseases without effective treatment options. Healios is a pioneer in the development of regenerative medicines in Japan, where it has established a proprietary, gene-edited “universal donor” induced pluripotent stem cell (iPSC) line to develop next generation regenerative treatments in immuno-oncology, ophthalmology, liver diseases, and other areas of severe unmet medical need. Healios’ lead iPSC-derived cell therapy candidate, HLCN061, is a next generation NK cell treatment for solid tumors that has been functionally enhanced through gene editing. Its near-term pipeline includes the somatic stem cell product HLCM051, which has been evaluated in Japan in Phase 2/3 and Phase 2 trials in ischemic stroke and acute respiratory distress syndrome (ARDS), respectively. Healios was established in 2011 and has been listed on the Tokyo Stock Exchange since 2015 (TSE Growth: 4593).

<https://www.healios.co.jp/en>

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