



HLA-genome-edited iPS cell production contracted by Vision Care Inc.

Kyoto, Japan, 30 March, 2021 - The CiRA Foundation® (“CiRA_F”; located in Kyoto, Japan) today has signed an agreement with Vision Care Inc. (“Vision Care”; located in Kobe, Japan) to manufacture HLA edited iPS cells for use in clinical research and clinical trials.

HLA-edited iPS cells are iPS cells that have been gene edited to knock out the HLA gene, thus reducing the risk of immune rejection following transplantation of the cell product. This makes it possible to manufacture products from a single iPS cell that can be used for a larger number of patients instead of using products from iPS cells that match the patient's HLA.

Vision Care is engaged in research and development in the fields of ophthalmology and regenerative medicine at the Kobe Eye Center. President Masayo Takahashi is widely known for her research and development of iPS cell-derived retinal cells and directed the world's first human transplant of iPS cell products.

With the signing of this contract, CiRA_F and Vision Care expect to expand the number of diseases and subjects for transplantation.

The genome editing of iPS cells will be performed together with Vision Care in accordance with the standards for regenerative medicine products that Vision Care will independently produce.

We are also preparing to manufacture and stock HLA-edited iPS cells for wide availability by 2022.

Finally, we will continue to cooperate with industry and academia to make regenerative medicine using iPS cells available to the medical community as soon as possible.

About the CiRA Foundation

The CiRA Foundation manages the iPS Cell Stock Project* for regenerative medicine, which was started by the Center for iPS Cell Research and Application (CiRA), Kyoto University, in 2013. Our principle purpose is to provide the best iPS cell technology at affordable prices. We provide iPS cell lines that meet regenerative medicine standards to academia and industry.

We also contribute to the commercialization of regenerative medicine by providing services including the manufacturing of iPS cell-derived products, quality assessment, storage, and the publication of SOPs for manufacturing.

*** The iPS Cell Stock Project**

The aim of this project is to prepare multiple clinical-grade iPS cell lines manufactured from healthy donors homozygous for human leukocyte antigens (HLA). These lines will expand the number of people who can receive related therapies with minimal immune reactions. We have produced 27 iPS cell lines from 4 different HLA types with the cooperation of 7 donors. These lines can be used for about 40% of Japanese people. In order to cover up to 80% of the Japanese population, lines from 75 different HLA homozygous types are needed, which poses many time and cost challenges. Therefore, the project is currently preparing HLA-genome-edited iPS cells.

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