CiRA Foundation





Ribbon-cutting during the Y-FiT opening ceremony (Left: Dr. Yamanaka, Right: Mr. Yanai)

Announcement of the Opening of the Yanai Facility for my iPS Cell Therapy

Thanks to a generous donation from Mr. Tadashi Yanai, Chairman, the President and CEO of Fast Retailing Co., Ltd., the CiRA Foundation established a new facility for the my iPS Project—Yanai Facility for my iPS Cell Therapy (Y-FiT)—located at Nakanoshima Cross, Osaka. The opening ceremony was held on the morning of June 20, when Mr. Yanai and Dr. Shinya Yamanaka, President of the CiRA Foundation, attended the ribbon-cutting ceremony in front of an audience. Mr. Yanai and Dr. Yamanaka addressed questions from the media during a press conference following the ceremony. Afterwards, the two posed for photographs with their hand-written messages, with Mr. Yanai's saying, "Future, Hope, Happiness—iPS Cells for Everyone," while Dr. Yamanaka's read, "Bringing iPS Cells to Medical Applications." Mr. Yanai explained the meaning behind his message: "Future, hope, and happiness are what we need most right now. I chose this message with the hope that iPS cells will lead to groundbreaking treatments." Regarding his support for medical research, including the my iPS Project, he added, "For society to truly thrive, businesses must contribute back. Through my donation to the my iPS Project, I hope to help advance revolutionary medical treatments." In the afternoon, a commemorative symposium titled "The Current Status and Future of iPS Cell Applications" was held. Addressing an audience of approximately 150 stakeholders, Dr. Yamanaka expressed his gratitude and outlined the CiRA Foundation's role and the current state of medical applications of iPS cells.



Caption: A photo of Mr. Yanai and Dr. Yamanaka with their hand-written messages



Caption: Panel discussion during the symposium

Taking on the challenge of creating cells supporting future healthcare

---- Research and development at the new my iPS Project facility -----

The goal is to "supply the necessary cells whenever needed."

The CiRA Foundation currently manufactures iPS cells manually, requiring more than six months and costing approximately 50 million yen. To reduce cost and time, the my iPS project is developing technologies to produce cells more quickly, economically, and safely, and deliver patient-derived cells (small quantities and multiple types) to universities and companies promptly when needed. Through joint research with various companies, we aim to build infrastructure that will support the future of medicine.

Initiatives at the new Yanai my iPS Manufacturing Facility (Y-FiT)

Based on the knowledge gained at the Uehiro Laboratory for my iPS Cell Research located in the same building, this facility manufactures iPS cells for actual medical use. Until now, we have been conducting trials using blood from healthy volunteers, but moving forward, we will verify whether it is possible to manufacture applicable iPS cells and differentiated cells (cells for treatment) from patients' blood.



[The challenge of automation] INTERVIEW

Q1.

Y-FiT is currently working on applying German-made equipment for producing iPS cells. What were the initial challenges in automating cell production?



Members conducting research using closed automatic culture devices

A. With manual and automated devices, we faced an initial problem in that the material and shape of the containers used for growing cells differed, making it difficult for cells to adhere properly and proliferate. Despite repeated failures, we believed that "it should be theoretically possible to do this automatically," and we patiently collected data while changing the types and amounts of reagents. As a result, the success rate gradually increased, and we were able to cultivate cells automatically. Through persistent efforts, we could take a significant step forward. Additionally, during the research process, we often had to use large quantities of expensive reagents in many instances. It was thanks to the support of donations and public funds from everyone that we were able to advance such research. Every success achieved by the CiRA Foundation has been built day by day in collaboration with everyone who has supported us.

U2. What are the current challenges and future goals?

A. Now, not only can iPS cells be produced automatically, but some therapeutic cells can also be produced automatically in a single process. However, to use them for actual treatment, it is necessary to increase their purity further (collect only the target cells). We have installed devices from various companies in our laboratory and are continuously striving to produce iPS cells and therapeutic cells. In this process, it is conceivable that each device has distinct characteristics, such as "Device A is particularly effective at producing cardiac muscle cells" or "Device B is particularly effective at producing immune cells." While it would be ideal for a single device to produce all the necessary cells, by leveraging multiple devices, we aim to provide higher-quality cells to universities, companies, and medical institutions, and continue our efforts to deliver treatments to patients as soon as possible.

Giving Report 2024

The CiRA Foundation is financed by public funds, business profits, and donations. In FY2023, we received over 2.8 billion yen in donations from individuals and corporations.

Thank you very much for supporting the CiRA Foundation.

Donation Amount (April 1, 2024-March 31, 2025)

	Number of donations	Amount of donations
Membership	147	30,120,000 yen
Donations	371,677	8,450,710,000 yen
Total	371,824	8,480,830,000 yen

The total cost for fiscal year 2024 was approximately 4.1 billion yen, of which approximately 2.6 billion yen, or about 60%, was covered by donations. Thanks to your donations, we were able to introduce high-cost equipment necessary for iPS cell production and research. Such equipment not only supports daily research activities but also represents a significant step toward future medical advances.

Our foundation is advancing research and development to automate the production process of iPS cells. In this report, we will introduce the automated equipment added through donations and the research progress we achieved via their use.

1 Automatic and rapid extraction of source iPS cells from blood

To create iPS cells, we must first extract cells that will become the source of iPS cells from the blood. A manual process is time-consuming and has limits to the cleanliness and accuracy of the process. The newly introduced automatic centrifuge spins the blood at high speed to efficiently separate target cells, greatly reducing the time and allowing for faster cell preparation with reproducible quality.



2 Automated culture of iPS cells aiming for high-quality and low-cost production

In the my iPS Project, a dedicated device to automatically produce iPS cells has yet to be developed. Therefore, we are attempting to automate the culture of iPS cells by combining several existing devices with different purposes. These devices are expensive, costing several tens of millions of yen each, but your donations have made it possible for us to introduce them. Through automation, we aim to produce higher-quality iPS cells at a lower cost in the future.



Research and development for automation from freezing to storage of iPS cells

After production, iPS cells are frozen and stored. By automating this process from freezing to storage and shortening the time, we can minimize changes in cell temperature. In addition to maintaining higher quality, this system also contributes to safety by preventing frostbite among workers. We are currently studying more optimal operations, including the development of a management system to avoid erroneously removing cells.

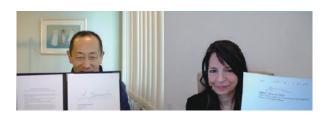


Marc

Mayo Clinic and CiRA Foundation Sign iPS Cell Stock Collaboration Agreement

The Mayo Clinic Center for Regenerative Biotherapeutics and CiRA Foundation have signed an agreement allowing Mayo Clinic to expand, culture, and store CiRA Foundation's iPS Cell Stock for research use and provide it to research groups at Mayo Clinic. This agreement will facilitate the timely distribution of iPS cells in the U.S. while

avoiding the risk and expense of transporting iPS cells.



May

Y-FiT in Osaka Obtains Approval as a Manufacturing Facility Under the Law for Ensuring the Safety of Regenerative Medicine

CiRA Foundation will continue to manufacture iPS cells in compliance with the Law for Ensuring the Safety of Regenerative Medicine.





Jun

Swiss-Japanese Scientific Ties at EXPO 2025 Osaka

In a vibrant celebration of international scientific collaboration, the science café "Creating a Healthier You with iPS Cells and Next-Gen Medicine" was held at EXPO 2025 Osaka on June 21–22, 2025. Co-hosted by CiRA, CiRA Foundation, Institute for Regenerative Medicine (IREM) at the University of Zurich (UZH), and Wyss Zurich, the event showcased the growing partnership between

Switzerland and Japan in regenerative medicine and biomedical innovation.





https://www.cira-foundation.or.jp/e/