

## General Information

- ◆ Approved as KU On-site Laboratory in FY 2019
- ◆ Established by the Center for iPS Cell Research and Application (CiRA) in September 2019.
- ◆ Partner institution: Gladstone Institutes, USA
- ◆ Purposes: Further development of world-leading iPS cell research and fostering globally competent early-career researchers
- ◆ Location: Gladstone Institutes, San Francisco, USA (outbound)
- ◆ Functions: Advanced research on iPS cells, training of early-career researchers, and recruitment of international students

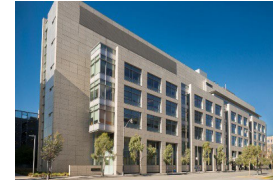
## Positive ripple effects to the university's activities

- Advancement in activities of researchers and students through participation in cutting-edge research
  - Exploration of new programs beyond the departmental level, including international collaborative research between KU and UCSF
- 【FY 2024】
- Create opportunities to offer internship education to students from neighboring universities.
  - Develop research collaborations with other laboratories and partner institutions and deepen the understanding for the functions of pluripotent stem cells.
  - Promote further applications of iPS cell technologies to industries and academia.

## Activity Overview



Shinya Yamanaka (PI)



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GLADSTONE  
INSTITUTES

### VISION:

- Development of global human resources and acceleration of cross-border innovation

### OUTLINE:

- Collaborative research on the mechanisms of protein translation regulation in the proliferation and differentiation of pluripotent stem cells.
- International exchange of researchers and students
- International exchange programs (symposiums, postdoc training programs)

### MANAGEMENT STRUCTURE:

- Associate professor employed by CiRA stationed at the on-site laboratory through a cross-appointment
- Researchers employed by CiRA stationed at the on-site laboratory

## Main Activities in FY 2023

### ① Guest Lecture at 2023 CiRA International Symposium

- Dr. Kiichiro Tomoda, the associate professor cross-appointed and stationed at the OSL, delivered a guest lecture titled "iPS Cell Research Center at Gladstone" and introduced activities of the laboratory (November 2023, held at Kyoto University Clock Tower Centennial Hall).
- During the two-day symposium, Dr. Tomoda actively engaged in scientific discussions and connected with participating researchers and students (about 250), other international lecturers (16 leaders of the field), and poster presenters (about 60).



### ② Further Improvement of Research & Educational Environment

- The lab has increased its research members and laboratory staff to accelerate its research.
- One researcher who completed her Ph.D. and worked at the OSL as a postdoctoral fellow has started a new company in the U.S.A. aiming for human reproductive therapies.
- Drs. Shinya Yamanaka and Kiichiro Tomoda, and the research team at the OSL recently showed that tight junctions between cells play a critical role in the gastrulation of human embryos. The achievements were published in *Developmental Cell*.  
<https://www.cira.kyoto-u.ac.jp/e/pressrelease/news/230721-160000.html>



### Developmental Cell

Loss of TJP1 disrupts gastrulation patterning and increases differentiation toward the germ cell lineage in human pluripotent stem cells