

# POSTDOCTORAL LIFE IN JAPAN

In April 2023, I started my postdoctoral research at the Center for Induced Pluripotent Stem Cell and Research Applications (CiRA), Kyoto University. Established by the 2012 Nobel Laureate, Professor Shinya Yamanaka, this research institute is dedicated to fundamental and clinical research on his novel finding, induced pluripotent stem (iPS) cells. I am very grateful for the opportunity given by Assoc. Prof. Knut Woltjen to be part of his group, which focuses on developing genome and epigenome editing technologies for disease modelling using iPS cells. My current research is part of a collaborative work between prestigious research and academic institutions in the UK and the US, funded by a biotech company.

The first month was loaded with administrative and paperwork, including getting my staff ID, medical check-ups, induction courses and trainings. Some of the trainings required me to take tests that I needed to pass and obtain certification, especially for subjects involving safety and ethical clearance. These include handling of human samples, genetically modified materials, chemical management and animal handling.



Currently, my weekly schedule is packed with experiments, seminars, progress meetings, journal clubs and lab cleaning in between. Although these activities may be typical, I learned many new things daily. For example, apart from improving my existing lab skills, I also acquired new ones including cell reprogramming, cell sorting using FACS machine and making mRNA factors by in-vitro transcription. I am also learning various gene editing modalities and their linguistics that are routinely used by fellow lab mates, from the classic piggyback transposon system, the revolutionary CRISPR system and its variants (dCas9, Cassilio) to the most precise base editing – PRIME editing.

Besides regular lab and research group meetings, I also attended CiRA progress seminars every week. During this meeting, CiRA researchers will present their work, which will help me stay updated with the progress made by other research groups and gain new perspectives. The diverse groups in CiRA that spans from fundamental to clinical research, working towards the vision of developing iPS cells for clinical use is inspirational. In fact, clinical trials using iPS cells have begun, and there are facilities dedicated to developing clinical-grade iPS cells in CiRA. Our lab will be visiting this facility in October, and I look forward to it.

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