

## SAKURA Program

Fortunately, I was grateful for the honor of participating in the exchange of the University of Tsukuba early this year. The most important things I learned and the biggest reward in this program were described as below.

The lab I joined was Lazarus's lab in the international institute for integrative sleep medicine of University of Tsukuba. First, we visited Professor Michael Lazarus, understanding their research direction and interesting study. In technique of experiments, we learned how to operate the sleep loss mouse model of inserting the EKG and EMG before collected the mice blood by cardiac puncture. After that, we separate the cluster of immune cells to single and construct cDNA library for each cell. Then, Using the next generation sequencing get the heat spot of RNA expression. Furthermore, we analysis these data to compare distributions of expression levels, know interaction between two organ system or tracing lineage differentiation. During these days, I learned many things on research, either in background knowledge, critical thinking, or in experiment technique. Totally, I gained a lot. Last but not the least, we prepared a presentation to all the participants to illustrate what we have done in this week. Also, this improved my presentation skills. I was really thankful this opportunity to participate any experimental work in research. Besides, all the lab members are professional and so friendly to us. Thanks for their teaching and patience!

Besides the lab research, we visited the proton beam therapy center in UT hospital and JAXA (Japan Aerospace Exploration Agency). I understood the advanced technique about medical treatment and the cooperation in space with medical study.

Finally, most importantly, I want to thank to my partner, Sora. In these periods, I had a wonderful time with our partners, Sora, Haruka and Moeko, from University of Tsukuba and experiencing more about Japanese culture. They are so kindly and took us to many places and introduced the Japanese things in patience. Although we spent a lot of the time in the laboratory, thanks to them, we were able to taste a variety of delicious food, visit Asakusa and Shibuya, and enjoy a joyful karaoke at last day night.

