

## STEPS Students Report

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My primary aim of taking part in STEPS program was to obtain experience of working in abroad laboratory. I chose Prof. Ui-Tei's research group in Science Department as the topic of their study was highly interesting for me. Later I understood that except great professionalism of my colleagues they also manage to create very friendly and comfortable atmosphere for all who are working in laboratory.

The topic of my research was the effect of TNRC6A phosphorylation on miRISC functioning. TNCR6A is one of the central protein of the RNA-induced silencing complex. It binds to Argonaute (Ago) protein through 3 glycine-tryptophan motifs (GW-motif) and serves as a platform for Ago. Certain amino acids within these motifs are phosphorylated and depending of their positions and quantity and some other factors the strength of binding differs. As the contribution of GW-I, -II, -III is unequal we need to investigate them separately. The subject of my research was GW-III.

During the work with my supervisor Masataka Suzawa, I learned a lot of new methods for me such as mutant creation, cloning, phosphatase assay and dual luciferase assay. As a result, we managed to find out phosphorylation sites in GW-III. We also made some experiments in order to evaluate the effect of phosphorylation on binding to Ago but the obtained data is not clear and we need more experiments on this topic. Based on the work done my colleagues are preparing article for international journal.

I am very happy that I had the opportunity to work with all the people in Prof. Ui-Tei's laboratory. However, I cannot help but note the cultural experience I gained in Japan. I visited so many beautiful place, meet a lot of interesting people and made wonderful

new friends. So this is really significant part of my journey. Thanks to all people who made this come true.

