

Acknowledgements

First of all, I would like to express my sincere thanks to Professor Mihoko Takahashi for giving me a chance to study in Japan, and her earnest guidance and invaluable advice throughout the course of this study.

I am very grateful to Doctors Fumiaki Maruo and Xianyu Yang for their instruction and helpful advice.

I am very appreciated to the Professor Emeritus Koichi Hiwatashi of Tohoku University and Senshu University of Ishinomaki, and Mister Atsushi Matsuda in critical reading and helpful suggestions on manuscript for publish.

I would like to thank Professor Yuzuru Oguma of the University of Tsukuba, Professor Xinbai Shi and Professor Wenmei Bao of Harbin Normal University to give me encouragement.

I would also like to thank the members of Professor M. Takahashi's Lab., the Institute of Biological Sciences, University of Tsukuba.