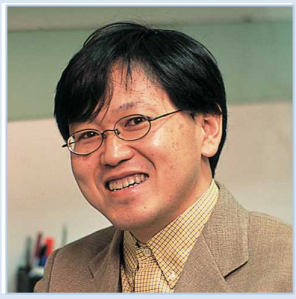

Shuh-ichi NISHIKAWA, Ph.D.

Professor

Program: Life and Food Sciences

Area: Life Sciences

Undergraduate: Dept. of Biology, Faculty of Science

Professional Expertise

1992: JSPS Research Fellow (Department of Biology, Faculty of Science, University of Tokyo)
1993: Assistant Professor (Department of Chemistry, Faculty of Science, Nagoya University)
2001: Associate Professor (Graduate School of Science, Nagoya University)
2012: Professor (Department of Biology, Faculty of Science, Niigata University)
2001~2003: Visiting Scientist (Department of Molecular Genetics and Cell Biology, University of Chicago)

Research Fields of Interest

The endoplasmic reticulum (ER) is the site of protein synthesis of the secretory pathway in eukaryotic cells. The ER has a quality control system, which ensures that only correctly folded proteins are transported out of the ER. Molecular chaperones in the ER play important roles in ER quality control. BiP, a molecular chaperone of the Hsp70 family in the ER, functions in ER quality control by keeping solubility of misfolded proteins for refolding or degradation in co-operation of ER-localized J-domain containing co-chaperones (J-proteins). Our group has been shown that *Arabidopsis thaliana*, a higher plant, contains a BiP and J-protein system similar to yeast and mammalian cells. Using *Arabidopsis* mutants of these chaperones, we are analyzing roles of ER quality control in plant development and adaptation to environment.

Education

1992: Ph.D. Graduate School of Science, The University of Tokyo, Japan
1989: M.S. Graduate School of Science, The University of Tokyo, Japan
1987: B.S. Department of Biology, Faculty of Science, The University of Tokyo, Japan

Professional Societies and Activities

1. The Japanese Society for Plant Physiologists
2. The Japanese Biochemical Society
3. Japan Society for Cell Biology
4. The Molecular Biology Society of Japan
5. The Botanical Society of Japan
6. The American Society for Cell Biology
7. American Society of Plant Biologists

Awards

1. Inoue Research Award for Young Scientists (1992)

Major Publications

Papers

[1] Tamura, Y., Harada, Y., Nishikawa, S., Yamano, K., Kamiya, M., Shiota, T., Kuroda, T., Kuge, O., Sesaki, H., Imai, K., Tomii, K., and Endo, T. (2013) Tam41 is a CDP-diacylglycerol synthase required for cardiolipin biosynthesis in mitochondria *Cell Metab.*17: 709-718

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