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Education:

Under Graduate Course: Department of Biology, Faculty of Science, Japan Women's University,
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Graduated in March, 1977

Graduate Course: Department of Life Chemistry, Faculty of Science, Tokyo Institute of
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Completed in March, 1982

Dr. of Science since March 1982

Dr. Thesis: Structure of mRNA and efficiency of protein synthesis in eukaryotic systems

Professional experience:

April, 1982-March, 1983
Post Doctoral Fellow, Department of Molecular Biology, National Institute of Genetics
April, 1984 - December 1986
Post Doctoral Fellow, Department of Biology, Faculty of Science,
Nagoya University, Nagoya, Japan
January, 1987 - February, 1989
Post Doctoral Fellow, Laboratory of Plant Molecular Biology,
The Rockefeller University, New York, USA
April, 1989 - March, 1993
Post Doctoral Fellow, Gene Structure Laboratory,

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April, 1993 – March, 2004
Senior Researcher, Biological Resources Division,
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Awards:

October 1993	The Encouragement Prize of the Botanical Society of Japan
April 2000	The Gold Medal Prize of Tokyo technoforum 21
April 2002	The Prize of the Education Minister for Japanese researcher
February 2003	The Tsukuba Prize
March 2009	The Award of The Japanese Society of Plant Physiologists

Selected publication:

1. Yamaguchi-Shinozaki K., and Shinozaki K.: A Novel *cis*-acting element in an Arabidopsis gene is involved in responsiveness to drought, low-temperature, or high-salt stress. *Plant Cell*, 6, 251-264 (1994).
2. Abe H., Yamaguchi-Shinozaki K., Urao T., Iwasaki T., Hosokawa D., and Shinozaki K.: Role of Arabidopsis MYC and MYB homologs in drought-and abscisic acid-regulated gene expression. *Plant Cell*, 9, 1859-1868 (1997).
3. Liu Q., Kasuga M., Sakuma Y., Abe H., Miura S., Yamaguchi-Shinozaki K. and Shinozaki K.: Two transcription factors, DREB1 and DREB2, with an EREBP/AP2 DNA binding domain separate two cellular signal transduction pathways in drought- and low- temperature-responsive gene expression, respectively, in Arabidopsis, *Plant Cell*, 10, 1391-1406 (1998).
4. Kasuga M., Liu Q., Miura S., Yamaguchi-Shinozaki K. and Shinozaki K.: Improving plant drought, salt, and freezing tolerance by gene transfer of a single stress-inducible transcription factor, *Nature Biotech.*, 17, 287-291 (1999).
5. Uno Y., Furihata T., Abe H., Yoshida R., Shinozaki K. and Yamaguchi-Shinozaki K.: *Arabidopsis* basic leucine zipper transcription factors involved in an abscisic acid-dependent signal transduction pathway under drought and high-salinity conditions, *Proc. Natl. Acad. Sci. USA*, 97, 11632-11637 (2000).
6. Abe, H., Urao, T., Ito, T., Seki, M., Shinozaki, K. and Yamaguchi-Shinozaki, K. Arabidopsis AtMYC2 (bHLH) and AtMYB2 (MYB) Function as Transcriptional Activators in ABA Signaling. *Plant Cell* 15, 63-78 (2003).
7. Maruyama, K., Sakuma, Y., Kasuga, M., Ito, Y., Seki, M., Goda, H., Shimada, Y., Yoshida, S., Shinozaki, K. and Yamaguchi-Shinozaki, K. (2004) Identification of cold-inducible

- downstream genes of the Arabidopsis DREB1A/CBF3 transcriptional factor using two microarray systems. *Plant J.* 38, 982-993.
8. Osakabe, Y., Maruyama, K., Seki, M., Satou, M., Shinozaki, K. and Yamaguchi-Shinozaki, K. (2005) An LRR receptor kinase, RPK1, is a key membrane-bound regulator of abscisic acid early signaling in Arabidopsis. *Plant Cell* 17, 1105-1119.
 9. Yamaguchi-Shinozaki, K. and Shinozaki, K. (2005) Organization of cis-acting regulatory elements in osmotic- and cold-stress-responsive promoters. *Trends Plant Sci.* 10, 88-94.
 10. Fujita, Y., Fujita, M., Satoh, R., Maruyama, K., Parvez, M.M., Seki, M., Hiratsu, K., Ohme-Takagi, M., Shinozaki, K. and Yamaguchi-Shinozaki, K. (2005) AREB1 is a transcription activator of novel ABRE-dependent ABA-signaling that enhances drought stress tolerance in Arabidopsis. *Plant Cell* 17, 3470-3488.
 11. Furihata, T., Maruyama, K., Fujita, Y., Umezawa, T., Yoshida, R., Shinozaki, K. and Yamaguchi-Shinozaki, K. (2006) ABA-dependent multisite phosphorylation regulates the activity of a transcription activator AREB1. *Proc. Natl. Acad. Sci. U.S.A.* 103, 1988-1993.
 12. Yoh S, Y., Maruyama, K., Osakabe, Y., Qin F., Seki, M., Shinozaki, K. and Yamaguchi-Shinozaki, K. (2006) Functional analysis of an Arabidopsis transcription factor, DREB2A, involved in drought-responsive gene expression *Plant Cell* 18, 1292-1309.
 13. Yamaguchi-Shinozaki, K., Shinozaki, K (2006) Transcriptional regulatory networks in cellular responses and tolerance to dehydration and cold stresses. *Annu. Rev. Plant Biol.* 57: 781-803.
 14. Sakuma, Y., Maruyama, K., Qin, F., Osakabe, Y., Shinozaki, K. and Yamaguchi-Shinozaki, K. (2006) Dual function of an Arabidopsis transcription factor DREB2A in water-stress- and heat-stress-responsive gene expression. *Proc. Natl. Acad. Sci. USA.* 103, 18828-18833.
 15. Nakashima, K., Tran, L.-S. P., Nguyen, D. V., Fujita, M., Maruyama, K., Todaka, D., Ito, Y., Hayashi, N., Shinozaki, K. and Yamaguchi-Shinozaki, K. (2007) Functional analysis of a NAC-type transcription factor OsNAC6 involved in abiotic and biotic stress-responsive gene expression in rice. *Plant J.* 51, 617-630.
 16. Tran, L.-S. P., Urao, T., Qin, F., Maruyama, K., Kakimoto, T., Shinozaki, K., and Yamaguchi-Shinozaki, K. (2007) Functional analysis of AHK1/ATHK1 and cytokinin receptor histidine kinases in response to abscisic acid, drought and salt stresses in *Arabidopsis*. *Proc. Natl. Acad. Sci. USA.* 104, 20623-20628.
 17. Qin, F., Sakuma, Y., Tran, L.-S. P., Maruyama, K., Kidokoro, S., Fujita, Y., Fujita, M., Umezawa, T., Sawano, Y., Miyazono, K., Tanokura, M., Shinozaki, K. and Yamaguchi-Shinozaki, K. (2008) Arabidopsis DREB2A-interacting proteins function as RING E3 ligases and negatively regulate plant drought stress-responsive gene expression. *Plant Cell* 20, 1693-1707.
 18. Miyazono, K., Miyakawa, T., Sawano, Y., Kubota, K., Kang, H.-J., Asano, A., Miyauchi, Y., Takahashi, M., Zhi, Y., Fujita, Y., Yoshida, T., Kodaira, K., Yamaguchi-Shinozaki, K. and Tanokura, M. (2009) Structural basis of abscisic acid signaling. *Nature* 462, 609-614.
 19. Yamada, K., Osakabe, Y., Mizoi, J., Nakashima, K., Fujita, Y., Shinozaki, K. and Yamaguchi-Shinozaki, K. (2010) Functional analysis of an Arabidopsis thaliana abiotic stress-inducible facilitated diffusion transporter for monosaccharides. *J. Biol. Chem.* 285(2), 1138-1146.
 20. Osakabe, Y., Mizuno, S., Tanaka, H., Maruyama, K., Osakabe, K., Todaka, D., Fujita, Y., Kobayashi, M., Shinozaki, K. and Yamaguchi-Shinozaki, K. (2010) Overproduction of the membrane-bound receptor-like protein kinase1, RPK1, enhances abiotic stress tolerance in Arabidopsis. *J. Biol. Chem.* 285(12), 9190-9201.