



TARA

Life Science Center of
Tsukuba Advanced Research Alliance

TARA Seminar

16:00~, May 25th, 2017
Seminar room, Building A, TARA Center

Professor Akira Nakai, M.D., Ph.D.
Yamaguchi University



HSF1 in stress and health

In response to phototoxic stress such as elevated temperatures, heat shock transcription factor 1 (HSF1) is activated and induces transcription of protein quality control genes. This response, called heat shock response (HSR), is an evolutionally conserved adaptive mechanism to protein misfolding and maintains proteostasis capacity. Recently, it was revealed that HSF1 activity and the HSR are tightly connected with metabolisms of nucleic acid, sugar and energy. Furthermore, HSF1 was involved in DNA integrity. These observations suggest that the ancient transcription factor HSF1 plays a key role in cellular homeostasis.

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Fujimoto M, *et al. Mol. Cell* 48, 182-194 (2012)

Shinkawa T, *et al. Mol. Cell. Biol.* 22, 3571-3583 (2011)

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This seminar will be held as a part of classes

"World Science Leader's Seminar" in Ph.D. Program in Human Biology

University of Tsukuba

