

Atsushi Higashitani

Curriculum Vitae

Professor
 Graduate School of Life Sciences, Tohoku University, Japan



● Educational Background & Professional Experience

2001.4–Present	Professor, Graduate School of Life Sciences, Tohoku University
1997.3–2001.3	Associate Professor, Institute of Genetic Ecology, Tohoku University
1990.3–1997.2	Assistant Professor, National Institute of Genetics, Japan
1989.4–1990.2	JSPS Research Fellow for Young Scientists (DC)
1987.4–1990.2	PhD course, Department of Biology, Nagoya University

● Research Interests

My primary interests involve clarifying how environmental stress and aging impact molecular, physiological, and genetic levels using model organisms. As for the topic of this symposium, it is an investigation into how the microgravity environment of space influences the neuromuscular development and aging processes of the nematode *Caenorhabditis elegans*.

● Publications

1. Higashitani A, et al. Increased mitochondrial Ca^{2+} contributes to health decline with age and Duchene muscular dystrophy in *C. elegans*. *FASEB J.* 2023 Apr;37(4):e22851. doi: 10.1096/fj.202201489RR.
2. Wu X, Seida M, Abe T, Higashitani A. Mitochonic acid 5 attenuates age-related neuromuscular dysfunction associated with mitochondrial Ca^{2+} overload in *Caenorhabditis elegans*. *NPJ Aging.* 2023 Aug 1;9(1):20. doi: 10.1038/s41514-023-00116-2.
3. Kim BS, et al. Comparative Analysis of Muscle Atrophy During Spaceflight, Nutritional Deficiency and Disuse in the Nematode *Caenorhabditis elegans*. *Int J Mol Sci.* 2023 Aug 10;24(16):12640. doi: 10.3390/ijms241612640.
4. Sudevan S, et al. Loss of physical contact in space alters the dopamine system in *C. elegans*. *iScience.* 2022 Jan 11;25(2):103762. doi: 10.1016/j.isci.2022.103762.
5. Higashitani A, et al. Histone deacetylase HDA-4-mediated epigenetic regulation in space-flown *C. elegans*. *NPJ Microgravity.* 2021 Sep 1;7(1):33. doi: 10.1038/s41526-021-00163-7.