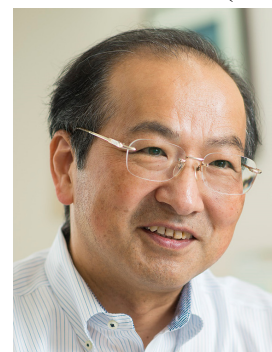


Hiroshi Ezura, Ph.D.

Date of Birth: March 10, 1960

Affiliation:

Graduate School of Life and Environmental Sciences &
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URL (Japanese): <https://www.gene.tsukuba.ac.jp/Plant/MolecularBreeding/index.html>

Academic History:

1982	University of Tsukuba	Biology	BSc
1984	University of Tsukuba	Microbiology	MSc
1993	Hokkaido University	Plant Breeding	PhD

Professional/Scientific Career:

1986, April 1-	Research Scientist	Ibaraki Horticultural Research Institute, Ami, Japan
1993, July 15-	Research Scientist	Plant Biotechnology Institute, Ibaraki Agricultural Center, Iwama, Japan.
1994, Jan 1-	Visiting Scientist	Department of Molecular Genetics, John Innes Center, Norwich, UK.
1995, April 1-	Senior Research Scientist	Plant Biotechnology Institute, Ibaraki Agricultural Center, Iwama, Japan.
2000, Oct 16-	Associate Professor	Gene Research Center, University of Tsukuba, Japan.
2005, Apr 1-date	Professor	Graduate School of Life and Environmental Sciences, University of Tsukuba, Japan.
2008, Apr 1-2010, Mar 31		
2016, April 1-2017, Mar 31	Director	Gene Research Center, University of Tsukuba, Japan
2012, April 1-2014, Mar 31	Chair	Graduate School of Life and Environmental Sciences, University of Tsukuba, Japan.
2014, Jan 1-2016, Mar 31	Special fellow	Center for Research and Development Strategy, Japan Science and Technology Agency
2014, April 1-2016, Mar 31	Provost	Graduate School of Life and Environmental Sciences, University of Tsukuba, Japan.
2017, April 1-date	Director General	Tsukuba Plant Innovation Research Center, University of Tsukuba, Japan

Professional Societies:

Japanese Society of Breeding
Japanese Society for Horticultural Science
Japanese Society for Plant Cell and Molecular Biology
The Japanese Society of Plant Physiologist
The Japanese Society for Chemical Regulation of Plants
Intellectual Property Association of Japan
International Association for Plant Biotechnology
International Society for Horticultural Science

Functions:

Editor of Breeding Science (1997-1998, 2012-date)
Editor of Plant Biotechnology (1997-1999)
Editorial board of Journal of Plant Biotechnology (2003-2006)
Editorial board of Plant Biotechnology Reports (2007-date)
Editorial board of Plant Physiology and Biochemistry (2010-2014)
Associate Editor of Plant Physiology and Biochemistry (2015-date)
Editorial board of Journal of Pineal Research (2011-2014)
Editorial board of Scientia Horticulture (2014-date)
Academic Editor of PLOS ONE (2014-date)
Scientific committee of the 1st ISHS international symposium on Cucurbit (1997)
Committee of Working Group on Cucurbits in ISHS (1997-2001)
Organizing and Scientific Committee and secretariat of the 2nd ISHS international symposium on Cucurbit (2000)
Scientific committee of the 8th EUCARPIA Cucurbitaceae 2004 (2004)
Scientific committee of the 9th EUCARPIA Cucurbitaceae 2008 (2008)
Committee of the Japanese Society of Plant Physiology (2007-date)
Committee of the Japanese Society of Plant Breeding (2006-2009)
Committee of Japanese Society for Plant Cell and Molecular Biology (2000-2001, 2004-2007)
Treasurer of Japanese Society for Plant Cell and Molecular Biology (200-2003)
Secretary General of Japanese Society for Plant Cell and Molecular Biology (2008-2009)
President of the Japanese Society for Plant Cell and Molecular Biology (2010-2012)
Co-Chair of Japanese Solanaceae Genomics Initiative (2007-2013)
Chair of Tomato National BioResource Project by MEXT, Japan (2007-date)
Steering Committee of ICuGI (2005-date)
Vice Chair of JSPS University-Industry Research Cooperation (2006-2009)
Chair of JSPS University-Industry Research Cooperation (2010-date)
Specially appointed fellow of JST-CRDS (2014-2016)
Member of the Science Council of Japan (2016-date)

Research Interests:

I am a scientist in the field of physiology, genomics, genetics, breeding and biotechnology of Solanaceae and Cucurbitaceae plants. My major research interests are research and development of biotechnology (cell and tissue culture, GM crops, new plant breeding techniques such as genome

editing). Recently I am interested in a field of food security research, and am focusing on how plant science can contribute to achieve a food security in the world.

Selected publications:

1. Ariizumi T, Higuchi K, Arakaki S, Sano T, Asamizu E, **Ezura H** (2011) Genetic suppression analysis in novel vacuolar processing enzymes reveals their roles in controlling sugar accumulation in tomato fruits. *Journal of Experimental Botany* 62(8): 2773-2786.
2. Saito T, Ariizumi T, Okabe Y, Asamizu E, Hiwasa-Tanase K, Yamazaki Y, Fukuda N, Mizoguchi T, Aoki K, **Ezura H** (2011) TOMATOMA: A novel tomato mutant database distributing Micro-Tom mutant collections. *Plant and Cell Physiology*. 52(2): 283-296.
3. Okabe Y, Asamizu E, Saito T, Matsukura C, Ariizumi T, Bres C, Rothan C, Mizoguchi T, **Ezura H** (2011) Tomato TILLING technology: Development of a reverse genetics tool for the efficient isolation of mutants from Micro-Tom mutant libraries. *Plant and Cell Physiology*. 52(11): 1994-2005
4. Koike S, Matsukura C, Takayama M, Asamizu E, **Ezura H** (2013) Suppression of γ -amino butyric acid (GABA) transaminases induces prominent GABA accumulation, dwarfism and infertility in the tomato (*Solanum lycopersicum* L.). *Plant and Cell Physiology*. 54(4): 793-807.
5. Ariizumi T, Kishimoto S, Kakami R, Maoka T, Hirakawa H, Suzuki Y, Ozeki Y, Shirasawa K, Bernillon S, Okabe Y, Moing A, Asamizu E, Rothan C, Ohmiya A, **Ezura H**. (2014) Identification of the tomato carotenogenic gene *PALE YELLOW PETAL 1* as an essential factor in xanthophyll esterification and yellow flower pigmentation. *The Plant Journal*. 79: 453-465.
6. Takayama M, Koike S, Kusano M, Matsukura C, Saito K, Ariizumi T, **Ezura H**. (2015) Tomato glutamate decarboxylase genes SIGAD2 and SIGAD3 play key roles in regulation of γ -aminobutyric acid level in tomato (*Solanum lycopersicum*). *Plant and Cell Physiology*. 56(8):1533-1545.
7. Hao S, Ariizumi T, Ezura H (2017) *SEXUAL STERILITY* is essential for both male and female gametogenesis in tomato. *Plant and Cell Physiology*. 58 (1): 22-34.
8. Nonaka S, Someya T, Zhou S, Takayama M, Nakamura K, Ezura H (2017). An *Agrobacterium tumefaciens* strain with gamma-aminobutyric acid transaminase activity shows an enhanced genetic transformation ability in plants. *Scientific Reports*. 7, Article number: 42649.
9. Shimatani Z, Kashojiya S, Takayama M, Terada R, Arazoe T, Ishii H, Teramura H, Yamamoto T, Komatsu H, Miura K, Ezura H, Nishida K, Ariizumi T, Kondo A (2017) Targeted base editing in rice and tomato using a CRISPR-Cas9 cytidine deaminase fusion. *Nature Biotechnology*. doi: 10.1038/nbt.3833.
10. Ueta R, Abe C, Watanabe T, Sugano S, Ishihara R, Ezura H, Osakabe Y, Osakabe K. (2017) Rapid breeding of parthenocarpic tomato plants using CRISPR/Cas9. *Scientific Reports*. 7(1):507.