

平瀬賞受賞論文

第 9 回 (2004 年度)

Glom is a novel mitochondrial DNA packaging protein in *Physarum polycephalum* and causes intense chromatin condensation without suppressing DNA functions.

N. Sasaki, H. Kuroiwa, C. Nishitani, H. Takano, T. Higashiyama, T. Kobayashi, Y. Shirai, A. Sakai, S. Kawano, K. Murakami-Murofushi, T. Kuroiwa

Mol. Biol. Cell (2003) 14, 4758-4769.

DOI: 10.1091/mbc.E03-02-0099

γ -Tubulin in basal land plants: Characterization, localization, and implication in the evolution of acentriolar microtubule organizing centers

M. Shimamura, R.C. Brown, B.E. Lemmon, T. Akashi, K. Mizuno, N. Nishihara, K.-I. Tomizawa, K. Yoshimoto, H. Deguchi, H. Hosoya, T. Horio, Y. Mineyuki

Plant Cell (2004) 16, 45-59.

DOI: 10.1105/tpc.016501

第 10 回 (2005 年度)

Intermittent pollen-tube growth in pistils of alders (*Alnus*)

A. Sogo, H. Tobe

Proc. Natl. Acad. Sci. USA (2005) 102, 8770-8775.

DOI: 10.1073/pnas.0503081102

Molecular variation of *Spiranthes sinensis* (Orchidaceae) in Japan, with special reference to systematic treatment of seasonally differentiated groups and a dwarf form, f. *gracilis*, from Yakushima Island

H. Tsukaya

J. Plant Res. (2005) 118, 13-18.

DOI: 10.1007/s10265-004-0186-y

第 11 回 (2006 年度)

Microtubule-dependent microtubule nucleation based on recruitment of γ -tubulin in higher plants

T. Murata, S. Sonobe, T.I. Baskin, S. Hyodo, S. Hasezawa, T. Nagata, T. Horio, M. Hasebe

Nature Cell Biol. (2005) 7, 961-968.

DOI: 10.1038/ncb1306

GENERATIVE CELL SPECIFIC 1 is essential for angiosperm fertilization

T. Mori, H. Kuroiwa, T. Higashiyama, T. Kuroiwa

Nature Cell Biol. (2006) 8, 64-71.

DOI: 10.1038/ncb1345

第 12 回 (2007 年度)

Males evolved from the dominant isogametic mating type

H. Nozaki, T. Mori, O. Misumi, S. Matsunaga, T. Kuroiwa

Curr. Biol. (2006) 16, 1018-1020.

DOI: 10.1016/j.cub.2006.11.019

第 13 回 (2008 年度)

該当論文なし

第 14 回 (2009 年度)

The preprophase band is a localized center of clathrin-mediated endocytosis in late prophase cells of the onion cotyledon epidermis.

I. Karahara, J. Suda, H. Tahara, E. Yokota, T. Shimmen, K. Misaki, S. Yonemura, L. A. Staehelin, Y.

Mineyuki

Plant J. (2009) 57, 819-831.

DOI: 10.1111/j.1365-313X.2008.03725.x

Defensin-like polypeptide LUREs are pollen tube attractants secreted from synergid cells

S. Okuda, H. Tsutsui, K. Shiina, S. Sprunck, H. Takeuchi, R. Yui, R.D. Kasahara, Y. Hamamura, A.

Mizukami, D. Susaki, N. Kawano, T. Sakakibara, S. Namiki, K. Itoh, K. Otsuka, M. Matsuzaki, H.

Nozaki, T. Kuroiwa, A. Nakano, M.M. Kanaoka, T. Dresselhaus, N. Sakaki, T. Higashiyama

Nature (2009) 458, 357-361.

DOI: 10.1038/nature07882

第 15 回 (2010 年度)

The PLASTID DIVISION1 and 2 components of the chloroplast division machinery determine the rate of chloroplast division in land plant cell differentiation

K. Okazaki, Y. Kabeya, K. Suzuki, T. Mori, T. Ichikawa, M. Matsui, H. Nakanishi, S. Miyagishima

Plant Cell (2009) 21, 1769-1780.

DOI: 10.1105/tpc.109.067785

第 16 回 (2011 年度)

Expression of SHOOT MERISTEMLESS, WUSCHEL, and ASYMMETRIC LEAVES1 homologs in the shoots of Podostemaceae: Implications for the evolution of novel shoot organogenesis

N. Katayama, S. Koi, M. Kato

Plant Cell (2010) 22, 2131-2140.

DOI: 10.1105/tpc.109.073189

Chloroplasts divide by contraction of a bundle of nanofilaments consisting of polyglucan

Y. Yoshida, H. Kuroiwa, O. Misumi, M. Yoshida, M. Ohnuma, T. Fujiwara, F. Yagisawa, S. Hirooka, Y.

Imoto, K. Matsushita, S. Kawano, T. Kuroiwa

Science (2010) 329, 949-953.

DOI: 10.1126/science.1190791

第 17 回 (2012 年度)

Fertilization recovery after defective sperm cell release in *Arabidopsis*

R. D. Kasahara, D. Maruyama, Y. Hamamura, T. Sakakibara, D. Twell, T. Higashiyama

Curr. Biol. (2012) 22, 1084-1089.

DOI: 10.1016/j.cub.2012.03.069

Acquisition and diversification of cladodes: Leaf-like organs in the genus *Asparagus*

H. Nakayama, T. Yamaguchi, H. Tsukaya

Plant Cell (2012) 24, 929-940

DOI: 10.1105/tpc.111.092924

第 18 回 (2013 年度)

ANGUSTIFOLIA3 signaling coordinates proliferation between clonally distinct cells in leaves

K. Kawade, G. Horiguchi, T. Usami, M. Y. Hirai, H. Tsukaya

Curr. Biol. (2013) 23, 788-792.

DOI: 10.1016/j.cub.2013.03.044

Keep an eye on PPi: The vacuolar-type H⁺-pyrophosphatase regulates postgerminative development in *Arabidopsis*

A. Ferjani, S. segami, G. Horiguhi, Y. Muto, M. Maeshima, H. Tsukaya

Plant Cell (2011) 23, 2895-2908.

DOI: 10.1105/tpc.111.085415

Mechanism of microtubule array expansion in the cytokinetic phragmoplast

T. Murata, T. Sano, M. Sasabe, S. Nonaka, T. Higashiyama, S. Hasezawa, Y. Machida, M. Hasebe

Nature Commun. (2013) 4, 1967.

DOI: 10.1038/ncomms2967

第 19 回 (2014 年度)

Evolutionary developmental transcriptomics reveals a gene network module regulating interspecific diversity in plant leaf shape

Y. Ichihashi, J. A. Aguilar-Martínez, M. Farhi, D. H. Chitwood, R. Kumar, L. V. Millon, J. Peng, J. N. Maloof, N. R. Sinha
Proc. Natl. Acad. Sci. USA (2014) 111, E2616-E2621.
DOI: 10.1073/pnas.1402835111

第 20 回 (2015 年度)

Five *Cyanophora* (Cyanophorales, Glaucophyta) species delineated based on morphological and molecular data

T. Takahashi, M. Sato, K. Toyooka, R. Matsuzaki, K. Kawafune, M. Kawamura, K. Okuda, H. Nozaki
J. Phycol. (2014) 50, 1058-1069.
DOI: 10.1111/jpy.12236

Rapid elimination of the persistent synergid through a cell fusion mechanism

D. Maruyama, R. Völz, H. Takeuchi, T. Mori, T. Igawa, D. Kurihara, T. Kawashima M. Ueda, M. Ito, M. Umeda, S. Nishikawa, R. Groß-Hardt, T. Higashiyama
Cell (2015) 61, 907-918.
DOI: 10.1016/j.cell.2015.03.018

第 21 回 (2016 年度)

Floral anatomy and vegetative development in *Ceratophyllum demersum*: A morphological picture of an “unsolved” plant

A. Iwamoto, R. Izumidate and L. P. Ronse De Craene
Am. J. Bot. (2015) 102, 1578-1589.
DOI: 10.3732/ajb.1500124

ClearSee: a rapid optical clearing reagent for whole-plant fluorescence imaging

D. Kurihara, Y. Mizuta, Y. Sato, T. Higashiyama.
Development (2015) 142, 4168-4179.
DOI: 10.1242/dev.127613

The coordination of ploidy and cell size differs between cell layers in leaves

Y. Katagiri, J. Hasegawa, U. Fujikura, R. Hoshino, S. Matsunaga, H. Tsukaya
Development (2016) 143, 1120-1125.
DOI: 10.1242/dev.130021

第 22 回 (2017 年度)

Holliday junction resolvases mediate chloroplast nucleoid segregation

Y. Kobayashi, O. Misumi, M. Odahara, K. Ishibashi, M. Hirono, K. Hidaka, M. Endo, H. Sugiyama, H. Iwasaki, T. Kuroiwa, T. Shikanai and Y. Nishimura

Science 356: 631-634

DOI: 10.1126/science.aan0038

Chloroplast division checkpoint in eukaryotic algae

N. Sumiya, T. Fujiwara, A. Era and S.Y. Miyagishima

Proc Natl Acad Sci USA 113: E7629-E7638

DOI: 10.1073/pnas.1612872113.

第 23 回 (2018 年度)

Root apical meristem diversity in extant lycophytes and implications for root origins

R. Fujinami, T. Yamada, A. Nakajima, S. Takagi, A. Idogawa, E. Kawakami, M. Tsutsumi, R. Imaichi

New Phytol. (2017) 215, 1210-1220.

DOI: 10.1111/nph.14630

第 24 回 (2019 年度)

Onsite GTP fuelling via DYNAMO1 drives division of mitochondria and peroxisomes

Y. Imoto, Y. Abe, M. Honsho, K. Okumoto, M. Ohnuma, H. Kuroiwa, T. Kuroiwa, Y. Fujiki

Nat Commun. (2018) 9, 4634.

DOI: 10.1038/s41467-018-07009-z

Primed histone demethylation regulates shoot regenerative competency

H. Ishihara, K. Sugimoto, P.T. Tarr, H. Temman, S. Kadokura, Y. Inui, T. Sakamoto, T. Sasaki, M. Aida, T. Suzuki, S. Inagaki, K. Morohashi, M. Seki, T. Kakutani, E.M. Meyerowitz, S. Matsunaga

Nat Commun. (2019) 10, 1786.

DOI: 10.1038/s41467-019-09386-5

第 25 回 (2020 年度) 該当論文なし

第 26 回 (2021 年度)

The diversity of stomatal development regulation in *Callitriche* is related to the intrageneric diversity in lifestyles.

Y. Doll, H. Koga, H. Tsukaya

Proc. Natl. Acad. Sci. (2021) 118, e2026351118.

DOI: 10.1073/pnas.202635111

Persistent directional growth capability in *Arabidopsis thaliana* pollen tubes after nuclear elimination from the apex

K. Motomura, H. Takeuchi, M. Notaguchi, H. Tsuchi, A. Takeda, T. Kinoshita, T. Higashiyama, D. Maruyama.

Nat. Commun. (2021) 12, 2331.

DOI: 10.1038/s41467-021-22661-8

N-aryl pyrido cyanine derivatives are nuclear and organelle DNA markers for two-photon and super-resolution imaging

K. Uno, N. Sugimoto, Y. Sato

Nat. Commun. (2021) 12, 2650.

DOI: 10.1038/s41467-021-23019-w

第 27 回 (2022 年度)

Stem integrity in *Arabidopsis thaliana* requires a load-bearing epidermis

M. Asaoka, M. Ooe, S. Gunji, P. Milani, G. Runel, G. Horiguchi, O. Hamant, S. Sawa, H. Tsukaya, A. Ferjani.

Development (2021) 148, dev198028.

DOI: 10.1242/dev.198028