

## 原著論文

- Nakano, R., Piślewska-Bednarek, M., Yamada, K., Edger, P., Miyahara, Ma., Kondo, M., Böttcher, C., Mori, M., Nishimura, M., Schulze-Lefert, P., Hara-Nishimura, I. and Bednarek, P. (2016). PYK10 Myrosinase Reveals a Functional Coordination between ER Bodies and Glucosinolates in *Arabidopsis thaliana*. *The Plant Journal*, in press doi: 10.1111/tpj.13377.
- Matsui, K., Hisano, T., Yasui, Y., Mori, M., Walker, A.R., Morishita, T. and Tatsu, K. (2016). Isolation and Characterization of Genes Encoding Leucoanthocyanidin Reductase (FeLAR) and Anthocyanidin Reductase (FeANR) in Buckwheat (*Fagopyrum esculentum*). *Journal of Plant Physiology*, in press doi: 10.1016/.
- Yasui Y, Hirakawa H, Oikawa T, Toyoshima M, Matsuzaki C, Ueno M, Mizuno N, Nagatoshi Y, Imamura T, Miyago M, Tanaka K, Mise K, Tanaka T, Mizukoshi H, Mori M, Fujita Y. (2016). Draft genome sequence of an inbred line of *Chenopodium quinoa*, an allotetraploid crop with great environmental adaptability and outstanding nutritional properties. *DNA Research* Jul 25. pii: dsw037. [Epub ahead of print]
- Yasui Y, Hirakawa H, Ueno M, Matsui K, Katsube-Tanaka T, Yang SJ, Aii J, Sato S, Mori M. (2016). Assembly of the draft genome of buckwheat and its applications in identifying agronomically useful genes. *DNA Research* 23, 215-24.
- Niimi, H., Ueno, T., Hayashi, S., Abe, A., Tsurue, T., Mori, M., Tabata, H., Minami, H., Goto, M., Akiyama, M., Yamamoto, Y., Saito, S and Kitajima, I. (2015). Melting Temperature Mapping Method: A Novel Method for Rapid Identification of Unknown Pathogenic Microorganisms within Three Hours of Sample Collection. *SCIENTIFIC REPORTS*. DOI:10.1038/srep12543.
- Ueno, T., Niimi, H., Yoneda, N., Mori, M., Tabata, H., Minami, H., Saito, S. and Kitajima, I. (2015). Eukaryote-Made Thermostable DNA Polymerase Enable Rapid PCR-Based Detection of Mycoplasma, Ureaplasma and Other Bacteria in the Amniotic Fluid of Preterm Labor Cases. *Plos One* DOI:10.1371/journal.pone.0129032.
- Costa, M.C., Marshall, E., Tefaye, M., Silverstein, K., Mori, M., Umetsu, Y., Otterbach, S., Papareddy, R., Dickinson, H., Boutiller, K., VandenBosch, K., Ohki, S. and Gutierrez-Marcos, F.J. (2014). Central cell derived peptides regulate early embryo patterning in flowering plants. *Science* 344, 168-172.
- Shimada, T. L., Takano, Y., Shimada, T., Fujiwara, M., Fukao, Y., Mori, M., Okazaki, Y., Saito, K., Sasaki, R., Aoki, K. and Nishimura, H. N. (2014) CLO3 and DOX1 function coordinately to produce a novel phytoalexin on leaf oil bodies. *Plant Physiology* 164, 105-118.F1000
- Ikegami, H., Nogata, H., Inoue, Y., Himeno, S., Yakushiji, H., Hirata, C., Hirashima, K., Mori, M., Awamura, M. and Nakahara, T. (2013) Expression of FcFT1, a FLOWERING LOCUS T-like gene, is regulated by light and associated with inflorescence differentiation in fig (*Ficus carica* L.). *BMC Plant Biology* 13, 216.
- Takata, N., Yokota, K., Ohki, S., Mori, M., Taniguchi, T. and Kurita, M. (2013)

Evolutionary relationship and structural characterization of the *EPF/EPFL* gene family. *PLoS One* DOI:10.1038/ncomms1520.

Yasui, Y\*, Mori, M., Aii, J., Abe, T., Matsumoto, D., Sato, S., Hayashi, Y., Ohnishi, O., and Ota, T. (2012) S-Locus Early Flowering 3 Is Exclusively Present in the Genome of Short-Styled Buckwheat Plants that Exhibit Heteromorphic Self-Incompatibility. *PLoS One* 7. 2 e31264. F1000

Koga, H., Dohi, K., Nishiuchi, T., Kato, T., Takahara, H., Mori, M. and Komatsu, S. (2012) Proteomic analysis of susceptible rice plants expressing the whole plant-specific resistance against *Magnaporthe oryzae*: Involvement of a thaumatin-like protein. *Physiological and Molecular Plant Pathology* 77. 60–66.

Nishikiori, M., Mori, M., Dohi, K., Okamura, H., Katoh, E., Naito, S., Meshi, T. and Ishikawa, M. (2011) A host small GTP-binding protein ARL8 plays crucial roles in tobamovirus RNA replication *PloS Pathogens* 7. 12. 1002409.

Ohki, S., Takeuchi, M. and Mori, M. (2011) Molecular basis of plant peptide hormones regulating stomatal density revealed by NMR structure of stomagen. *Nature Communications* 10. 1038.

Ohki, S., Takeuchi, M. and Mori, M. (2011) Molecular basis of plant peptide hormones regulating stomatal density revealed by NMR structure of stomagen.

Tanaka, E., Koga, H., Mori, M. and Mori, M. (2011) Auxin production by the rice blast fungus and its localization in host tissue. *J. Phytopathol.* 159, 522–530.

Niimi, H., Mori, M., Tabata, H., Minami, H., Ueno, T., Hayashi, S. and Kitajima, I. A novel eukaryote-made thermostable DNA polymerase which is free from bacterial DNA contamination. *Journal of Clinical Microbiology* (2011) 49, 3316–3320.

Sugano, S. S., Shimada, T., Imai, Y., Okawa, K., Tamai, A., Mori, M., Hara-Nishimura I. (2010). Stomagen positively regulates stomatal density in *Arabidopsis*. *Nature* 463, 241–244.

Chen, H., Tamai, A., Mori, M., Ugaki, M., Tanaka, Y., Samadder, P. P., Miyao, A., Hirochika, H., Yamaoka, N. and Nishiguchi, M. (2010) Analysis of rice RNA-dependent RNA polymerase in virus-mediated RNA silencing after particle bombardment. *Journal of General Pathology* 76, 152–160.

Tanaka, S., Ichikawa, A., Yamada, K., Tsuji, G., Nishiuchi, T., Mori, M., Koga, H., Nishizawa, Y., O'Connell, R. and Kubo, Y. (2010) HvCEBiP a gene homologous to rice chitin receptor CEBiP, contributes to basal resistance of barley to *Magnaporthe oryzae*. *BMC Plant Biology* 10, 288.

Katayama, H., Mori, M., Kawamura, Y., Tanaka, T., Mori, M., Hasegawa H. (2009). Nitrate transporter Production and characterization of transgenic rice plants carrying a high-affinity nitrater gene (*OsNRT2.1*) *Breeding Science*. 59, 237–243.

Takahashi, K., Shimada, T., Konda, M., Tamai, A., Mori, M., Nishimura M, and Hara-Nishimura I. (2009). Ectopic Expression of an Esterase, Which is

a Candidate for the Unidentified Plant Cutinase, Causes Cuticular Defects in *Arabidopsis thaliana* *Plant Cell Physiology*. 51, 1-9.

Tamai, A., Dohi, K., Mori, M., Meshi, T. and Ishikawa, M. (2009). Inducible viral inoculation system with cultured plant cells facilitates a biochemical approach for virus-induced RNA silencing. *Archives of Virology*. 155;297-303

Notaguchi, M., Abe, M., Kimura, T., Daimon, Y., Kobayashi, T., Yamaguchi, A., Tomita, Y., Dohi, K., Mori, M., and Araki, T. (2008) Long-Distance graft-transmissible action of Arabidopsis FLOWERING LOCUS T protein to promote flowering. *Plant Cell Physiology* 49(11); 1645-1658.

Ohki, S., Dohi, K., Tamai, A., Takeuchi, M. and Mori, M. (2008) Stable-isotope labeling using an inducible viral infection system in suspension-cultured plant cells. *Journal of Biomolecular NMR*. 42;271-277.

Yasui, Y., Mori, M., Matsumoto, D., Ohnishi, O., Campbell, C. G. and Ota, T. (2008) Construction of a BAC library for buckwheat genome research-An application to positional cloning of agricultural valuable traits. *Genes Genetics System* 83; 393-401.

Dohi, K., Tamai, A and Mori, M. (2008) Insertion in the coding region of the movement protein improves stability of the plasmid encoding a tomato mosaic virus-based expression vector. *Archives of Virology* 153(9), 1667-75.

Koga, H., Dohi, K., Yoshimoto, R. and Mori, M. (2008) Resistance in leaf blades assessed by counting conidia correlates with whole-plant-specific resistance in leaf sheaths in a compatible rice-Magnaporthe oryzae interaction. *Journal of General Pathology* 74, 246-249.

Dohi, K. and Mori, M. (2007) Expression of active enzyme from an inducible tomato-mosaic-based vector in cultured transgenic tobacco BY-2 cells. *Plant Biotechnology* 24, 367-373.

Tanaka, S., Yamada, K., Yabumoto, K., Fujii, S., Huser, A., Tsuji, G., Koga, K., Dohi, K., Mori, M., Shiraishi, T., O'Connell, R. and Kubo, Y. (2007) Saccharomyces cerevisiae SSDI Orthologues are essential for host infection by the ascomycete plant pathogen Colletotrichum Lagenarium and Magnaporthe grisea. *Molecular Microbiology* 64(5), 1332-1349.

Kaido, M., Inoue, Y., Takeda, T., Sugiyama, K., Takeda, A., Mori, M., Tamai, A., Meshi, T., Okuno, T. and Mise, M. (2007) Downregulation of the NbNAC1 gene encoding a movement-protein-interacting protein reduces

cell-to-cell movement of Brome mosaic virus in *Nicotiana benthamiana*. *Molecular Plant-Microbe Interactions* 20, 6, 671-681.

Nishikiori, M., Dohi, K., Mori, M., Meshi, T., Naito, S and Ishikawa, M. (2006) Membrane-bound tomato mosaic virus replication proteins participate in RNA synthesis and are associated with host proteins in a pattern distinct from that observed for non-membrane-bound ones. *Journal of Virology* 80, 17, 8459-8468.

Mori, M., Kitamura, H, Kondo, H, Dohi, K., Mori, M., Kaido, M., Mise, K., Shimojyo, E. and Hashimoto, Y. (2006) Expression of an enhancin gene from *Trichoplusia ni* granulosis virus confers the resistance to lepidopterous insect pests to rice. *Plant Biotechnology* 23, 55-61.

Dohi, K., Nishikiori, M., Tamai, A., Ishikawa M., Meshi, T, and Mori, M. (2006) Inducible virus-mediated expression of a foreign protein in suspension-cultured plant cells. *Archives of Virology* 151, 1075-1084.

Mori, M. and Dohi, K. (2005) The “resurrection method” for modification of specific proteins in higher plants. *FEBS Letters* 579, 6210-6216.

Araki, R., Mori, M., Mori, M. and Hasegawa, H. (2005) Genetic Differences in Nitrate Uptake in Two Clones of the Common Reed, *Phragmites australis*. *Breeding Science* 55, 297-302.

Koga, H., Dohi, K. and Mori, M. (2004) Abscisic acid and low temperatures suppress the whole plant-specific resistance reaction of rice plants to the infection of *Magnaporthe grisea*. *Physiological and Molecular Plant Pathology* 65, 3-9.

Koga, H., Dohi, K., Nakayachi, O., and Mori, M. (2004) A novel inoculation method of *Magnaporthe grisea* for cytological observation of the infection process using intact leaf sheaths of rice plants. *Physiological and Molecular Plant Pathology* 64, 67-72.

Nagai, M., Hayashi, M., Sugita, S., Sakoda, Y., Mori, M., Murakami, T., Ozawa, T., Yamada, N. and Akashi, H. (2004) Phylogenetic analysis of bovine viral diarrhea viruses using five different genetic region. *Virus Research* 99, 103-113.

Sasaki, N., Arimoto, M., Nagano, H., Mori, M., Kaido, M., Mise, K. and Okuno, T. (2003) The movement protein gene is involved in the virus-specific requirement of the coat protein in cell-to-cell movement of bromoviruses. *Archives of Virology* 148, 803-812.

Nagai, M., Sakoda, Y., Mori, M., Hayashi, M., Kida, H. and Akashi, H. (2003)

Insertion of cellular sequence and RNA recombination in the structural protein coding region of cytopathogenic bovine viral diarrhoea virus. *Journal of General Virology* 84, 447-452.

Takeda, A., Sugiyama, K., Nagano, H., Mori, M., Kaido, M., Mise, K., Tsuda, S. and Okuno, T. (2002) Identification of a novel RNA silencing suppressor, NSs protein of Tomato spotted wilt virus. *FEBS Letters* 532, 75-79.

Wakita, Y., Otani, T., Hamada, M., Mori, M., Iba, K. and Shimada, T. (2001) A tobacco microsomal - 3 fatty acid desaturase gene increase the linolenic acid content in transgenic sweet potato (*Ipomoea batatas*). *Plant Cell Reports* 20, 244-249.

Dohi, K., Mori, M., Furusawa, I., Mise, K. and Okuno, T. (2001) Brome mosaic virus replicase proteins localize with the movement protein at infection-specific cytoplasmic inclusions in infected barley leaf cells. *Archives of Virology* 146(8), 1607-1615.

Mori, M., Fujihara, N., Mise, K. and Furusawa, I. (2001) Inducible high-level mRNA amplification system by viral replicase in transgenic plants. *The Plant Journal* 27(1), 79-86.

Hayakawa, T., E. Shimojo, M. Mori, M. Kaido, I. Furusawa, S. Miyata, Y. Sano, T. Matsumoto, Y. Hashimoto and R. R., Granados, R. R. (2000) Enhancement of baculovirus infection in *Spodoptera exigua* (Lepidoptera: Noctuidae) larvae with *Autographa californica* nucleopolyhedrovirus or *Nicotiana tabacum* engineered with a granulovirus enhancer gene. *Applied Entomology and Zoology* 35 (1):163-170.

Kaido, M., Mori, M., Mise, K., Okuno, T. and Furusawa, I. (1997) Auto-cleavable ribozyme sequence attached to brome mosaic virus cDNAs enhances accumulation of viral RNAs transcribed in vivo from the cDNAs. *Annals of Phytopathological Society of Japan* 63, 95-98.

Kaido, M., Mori, M., Mise, K., Okuno, T. and Furusawa, I. (1995) Inhibition of brome mosaic virus (BMV) amplification in protoplasts from transgenic tobacco plants expressing replicable BMV RNAs. *Journal of General Virology* 76, 2827-2833.

Mise, K., Mori, M., Nakayashiki, H., Koyama, T., Okuno, T. and Furusawa, I. (1994) Nucleotide sequence of a set of cDNA clones derived from the brome mosaic virus ATCC66 strain and comparison with the Russian strain genome. *Annals of Phytopathological Society of Japan* 60, 454-462.

Mori, M., Kaido, M., Okuno, T. and Furusawa, I. (1993) mRNA amplification

system by viral replicase in transgenic plants. *FEBS Letters* 336, 171-174.  
Mori, M., Zhang G., Kaido, M., Okuno, T. and Furusawa, I. (1993) Efficient production of human gamma interferon in tobacco protoplasts by genetically engineered brome mosaic virus RNAs. *Journal of General Virology* 74, 1255-1260.

Mori, M., Mise, K., Okuno, T. and Furusawa, I. (1992) Expression of brome mosaic virus-encoded replicase genes in transgenic plants. *Journal of General Virology* 73, 169-172.

Mori, M., Mise, K., Kobayashi, K., Okuno, T. and Furusawa, I. (1991) Infectivity of plasmids containing brome mosaic virus cDNA linked to the cauliflower mosaic virus 35S RNA promoter. *Journal of General Virology* 72, 243-246.

#### 特許

1. 「植物細胞におけるポリペプチドの製造法」(1990) 特願平 2-238234
2. 「形質転換細胞、および該細胞を用いたタンパク質の生産方法、並びにタンパク質生産キット」(2003) 特願 2003-343747
3. 「窒素吸収能を高めた植物の生産法およびその利用」(2004) 特願 2004-263106
4. 「ウイルスRNA複製液およびその製造方法、並びにその利用」(2004) 特願 2004-052499
5. 「タンパク質生産用形質転換体の生産方法、および当該生産方法によって得られたタンパク質生産用形質転換体、並びにその利用」(2004) 特願 2004-056912
6. 「TRANSFORMED CELL, PROCESS FOR PRODUCING PROTEIN USING THE CELL, PROTEIN PRODUCTION KIT, DNA FRAGMENT FOR EXPRESSING VIRUS VECTOR, USE OF THE SAME, PROCESS FOR PRODUCING TRANSFORMANT FOR PROTEIN PRODUCTION, TRANSFORMANT FOR PROTEIN PRODUCTION OBTAINED BY THE METHOD AND UTILIZATION THEREOF,」(2004) PCT/JP2004/014487
7. 「新規遺伝子発現方法およびその利用」(2005) 特願 2005-020455
8. 「ウイルスベクターおよびその利用」(2007) 特願 2007-082289.
9. 「形質転換植物、形質転換細胞、タンパク質生産キットおよびタンパク質の生産方法」(2007) 特願 2007-082289.
10. 「植物においてO型糖鎖結合タンパク質を製造するためのキット及びその利用」(2008) 特願 2008-084649
11. 「形質転換植物、形質転換細胞、タンパク質生産キットおよびタンパク質の生産方法」(2009) 特願 2009-506352
12. 「植物レクチンタンパク質の生産法」(2009) 特願 2009-15640

13. 「耐熱性DNAポリメラーゼを含む酵素精製物およびその製造法、並びに検出対象生物の検出方法」(2009) 特願 2009-65562 国際出願番号 PCT/JP2010/050443
14. 「立体構造が維持された<sup>13</sup>Cメチル基標識したバリン、ロイシン及び/又はイソロイシンを含むタンパク質を合成する方法」(2011) 特願 2011-152215
15. 「自家不和合性制御因子をコードする核酸」(2011) 特願 2011-212758