

ISSN (PRINT) 1674-2052 ISSN (ONLINE) 1752-9867 CN 31-2013/Q 分子植物

Q K 2 1 4 9 9 4 4

Molecular Plant

Volume 14
Number 12

December 6, 2021

www.cell.com/molecular-plant
www.molplant.org



CellPress
Partner Journal



Molecular Plant

Published on behalf of CSPB and CEMPS, CAS

Volume 14 Number 12 December 2021

Correspondences

- 1961 The main restorer *Rf3* of maize S type cytoplasmic male sterility encodes a PPR protein that functions in reduction of the transcripts of *orf355* Xiner Qin, Shike Tian, Wenliang Zhang, Qi Zheng, Hao Wang, Yang Feng, Yanan Lin, Jihua Tang, Yi Wang, Jianbing Yan, Mingqiu Dai, Yonglian Zheng, and Bing Yue
- 1965 WheatOmics: A platform combining multiple omics data to accelerate functional genomics studies in wheat Shengwei Ma, Meng Wang, Jianhui Wu, Weilong Guo, Yongming Chen, Guangwei Li, Yanpeng Wang, Weiming Shi, Guangmin Xia, Daolin Fu, Zhensheng Kang, and Fei Ni

Opinion

- 1969 Toward haplotype studies in polyploid plants to assist breeding Yuxuan Yuan, Armin Scheben, David Edwards, and Ting-Fung Chan

Spotlights

- 1973 Phosphoinositides: Emerging players in plant salinity stress tolerance Sergey Shabala and Min Yu
- 1976 Ubiquitination and PARylation cross-talk about immunity Marco Trujillo
- 1979 Fine-tuning ROS homeostasis by ROD1 is a battleground between rice and *Magnaporthe oryzae* Yoji Kawano
- 1982 TMK: A crucial piece of the acid growth puzzle Yakun Peng and Shutang Tan

Resource Article

- 1985 A single-cell morpho-transcriptomic map of brassinosteroid action in the *Arabidopsis* root Moritz Graeff, Surbhi Rana, Jos R. Wendrich, Julien Dorier, Thomas Eekhout, Ana Cecilia Aliaga Fandino, Nicolas Guex, George W. Bassel, Bert De Rybel, and Christian S. Hardtke

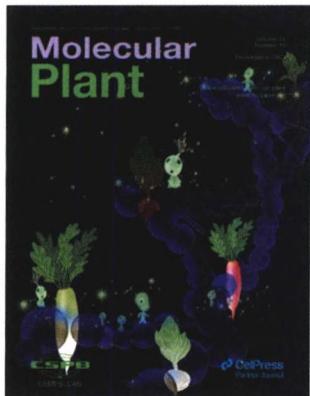
Research Articles

- 2000 Dynamic changes of phosphatidylinositol and phosphatidylinositol 4-phosphate levels modulate H⁺-ATPase and Na⁺/H⁺ antiporter activities to maintain ion homeostasis in *Arabidopsis* under salt stress Yongqing Yang, Xiuli Han, Liang Ma, Yujiao Wu, Xiao Liu, Haiqi Fu, Guoyong Liu, Xiaoguang Lei, and Yan Guo
- 2015 An angiosperm NLR Atlas reveals that NLR gene reduction is associated with ecological specialization and signal transduction component deletion Yang Liu, Zhen Zeng, Yan-Mei Zhang, Qian Li, Xing-Mei Jiang, Zhen Jiang, Ji-Hong Tang, Dijun Chen, Qiang Wang, Jian-Qun Chen, and Zhu-Qing Shao
- 2032 Pan-genome of *Raphanus* highlights genetic variation and introgression among domesticated, wild, and weedy radishes Xiaohui Zhang, Tongjin Liu, Jinglei Wang, Peng Wang, Yang Qiu, Wei Zhao, Shuai Pang, Xiaoman Li, Haiping Wang, Jiangping Song, Wenlin Zhang, Wenlong Yang, Yuyan Sun, and Xixiang Li

- 2056 Cytoplasmic and nuclear genome variations of rice hybrids and their parents inform the trajectory and strategy of hybrid rice breeding** *Zhoulin Gu, Zhou Zhu, Zhen Li, Qilin Zhan, Qi Feng, Congcong Zhou, Qiang Zhao, Yan Zhao, Xiaojian Peng, Bingxin Dai, Rongrong Sun, Yan Li, Hengyun Lu, Lei Zhang, Tao Huang, Junyi Gong, Danfeng Lv, Xuehui Huang, and Bin Han*
- 2072 The BZR1-EDS1 module regulates plant growth-defense coordination** *Guang Qi, Huan Chen, Dian Wang, Hongyuan Zheng, Xianfeng Tang, Zhengzheng Guo, Jiayu Cheng, Jian Chen, Yiping Wang, Ming-yi Bai, Fengquan Liu, Daowen Wang, and Zheng Qing Fu*
- 2088 Coordinated regulation of plant immunity by poly(ADP-ribosylation) and K63-linked ubiquitination** *Dongsheng Yao, Marcus A. Arguez, Ping He, Andrew F. Bent, and Junqi Song*
- 2104 A cellular mechanism underlying the restoration of thermo/photoperiod-sensitive genic male sterility** *Qiang-Sheng Shi, Yue Lou, Shi-Yi Shen, Sheng-Hong Wang, Lei Zhou, Jun-Jie Wang, Xing-Lu Liu, Shuang-Xi Xiong, Yu Han, Hai-Sheng Zhou, Xue-Hui Huang, Shui Wang, Jun Zhu, and Zhong-Nan Yang*

Research Reports

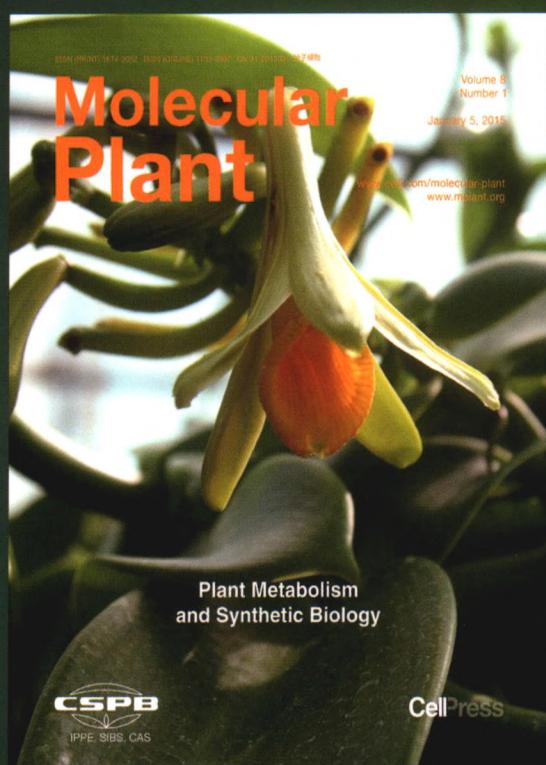
- 2115 Changing Gly311 to an acidic amino acid in the MATE family protein DTX6 enhances *Arabidopsis* resistance to the dihydropyridine herbicides** *Zeyu Lv, Mingming Zhao, Wenjing Wang, Qi Wang, Mengqi Huang, Chaoqun Li, Qichao Lian, Jinqiu Xia, Ji Qi, Chengbin Xiang, Huiru Tang, and Xiaochun Ge*
- 2126 A gain-of-function mutation of the MATE family transporter DTX6 confers paraquat resistance in *Arabidopsis*** *Jin-Qiu Xia, Tahmina Nazish, Ayesha Javaid, Mohsin Ali, Qian-Qian Liu, Liang Wang, Zheng-Yi Zhang, Zi-Sheng Zhang, Yi-Jie Huang, Jie Wu, Zhi-Sen Yang, Lin-Feng Sun, Yu-Xing Chen, and Cheng-Bin Xiang*



On The Cover

Radish pan-genome, which represents a genus-level pan-genome of *Raphanus*, provides new insights into genome evolution underlying post-polyploid diploidization and lays the foundation for genetic improvement of radish crops, biological control of weeds, and conservation of wild germplasms. The radish pan-genome was constructed through *de novo* genome assemblies of eleven accessions covering most of typical sub-species and varieties of domesticated, wild and weedy radishes from East Asia, South Asia, Europe and America. The cover image illustrates that the pan-genome is made up of the genomes of diverse radish accessions. The elves symbolize the chromosome-associated proteins that play important roles in DNA replication, DNA repair, chromatin modifications, and genome integrity maintenance. Image by: Jing Chen.

Share your plant biology breakthroughs with the world



Give your plant biology research the global visibility and recognition it deserves. Share your breakthroughs with the world in *Molecular Plant*, now published by Cell Press. Submit your manuscript today!

Learn more and sign up for free e-Tables of Contents at
www.cell.com/molecular-plant

Postal Delivery No.4-161 ¥ 230/Issue

CellPress