

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



Volume 14
Number 11

November 1, 2021

Molecular Plant

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



Molecular Plant

Published on behalf of CSPB and CEMPS, CAS

Volume 14 Number 11 November 2021

Spotlights

- 1773** **The genomes of *Taxus* species unveil novel candidates in the biosynthesis of taxoids** *Youjun Zhang, Federico Scossa, and Alisdair R. Fernie*
- 1776** **Complexes and complexities: INO80 takes center stage** *Sridevi Sureshkumar and Sureshkumar Balasubramanian*
- 1779** **It takes two to tango: Unraveling a new post-translational modification involved in SnRK2.6 activation** *Miguel Daniel-Mozo and Armando Albert*

Editor's Highlights

- 1782** **A prion-like protein sensor for seed hydration driven by phase separation** *Bing Bai*
- 1783** **Evolutionarily conserved mechanosensor PIEZO in land plants** *M. Arif Ashraf*
- 1784** **ITPK1 functions as both a kinase and an ADP phosphotransferase in Pi signaling** *Chun-Lin Shi*
- 1785** **Molecular mechanism of *Verticillium dahliae*-induced leaf senescence** *Wenkun Zhou and Xiaoyue Zhang*

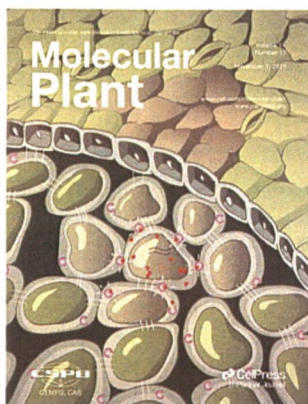
Resource Article

- 1787** **Highly efficient heritable genome editing in wheat using an RNA virus and bypassing tissue culture** *Tingdong Li, Jiacheng Hu, Yu Sun, Boshu Li, Dingliang Zhang, Wenli Li, Jinxing Liu, Dawei Li, Caixia Gao, Yongliang Zhang, and Yanpeng Wang*

Research Articles

- 1799** **The INO80 chromatin remodeling complex promotes thermomorphogenesis by connecting H2A.Z eviction and active transcription in *Arabidopsis*** *Mande Xue, Huairan Zhang, Fengyue Zhao, Ting Zhao, Hui Li, and Danhua Jiang*
- 1814** **Persulfidation-induced structural change in SnRK2.6 establishes intramolecular interaction between phosphorylation and persulfidation** *Sisi Chen, Xiaofeng Wang, Honglei Jia, Fali Li, Ying Ma, Johannes Liesche, Mingzhi Liao, Xueting Ding, Cuixia Liu, Ying Chen, Na Li, and Jisheng Li*
- 1831** **Gene duplication drove the loss of awn in sorghum** *Leina Zhou, Can Zhu, Xiaojian Fang, Hangqin Liu, Shuyang Zhong, Yan Li, Jiacheng Liu, Yang Song, Xing Jian, and Zhongwei Lin*

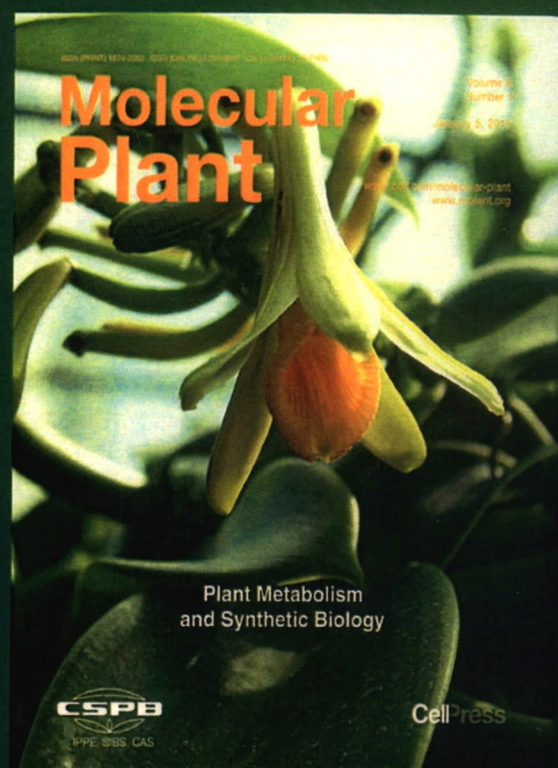
- 1846 A teosinte-derived allele of a MYB transcription repressor confers multiple disease resistance in maize**
Hongze Wang, Jiabao Hou, Pei Ye, Long Hu, Junshi Huang, Zhikang Dai, Bao Zhang, Sha Dai, Jiamin Que, Haoxuan Min, Gengshen Chen, Yanbo Wang, Min Jiang, Yan Liang, Lin Li, Xuecai Zhang, and Zhibing Lai
- 1864 ITPK1 is an InsP_6 /ADP phosphotransferase that controls phosphate signaling in *Arabidopsis***
Esther Riemer, Danye Qiu, Debabrata Laha, Robert K. Harmel, Philipp Gaugler, Verena Gaugler, Michael Frei, Mohammad-Reza Hajirezaei, Nargis Parvin Laha, Lukas Krusenbaum, Robin Schneider, Adolfo Saiardi, Dorothea Fiedler, Henning J. Jessen, Gabriel Schaaf, and Ricardo F.H. Giehl
- 1881 A cell wall-localized NLR confers resistance to *Soybean mosaic virus* by recognizing viral-encoded cylindrical inclusion protein**
Jinlong Yin, Liqun Wang, Tongtong Jin, Yang Nie, Hui Liu, Yanglin Qiu, Yunhua Yang, Bowen Li, Jiaojiao Zhang, Dagang Wang, Kai Li, Kai Xu, and Haijian Zhi
- 1901 *Verticillium dahliae* secretory effector PevD1 induces leaf senescence by promoting ORE1-mediated ethylene biosynthesis**
Yi Zhang, Yuhan Gao, Hou-Ling Wang, Chengcheng Kan, Ze Li, Xiufen Yang, Weilun Yin, Xinli Xia, Hong Gil Nam, Zhonghai Li, and Hongwei Guo
- 1918 *Arabidopsis* HIPP proteins regulate endoplasmic reticulum-associated degradation of CKX proteins and cytokinin responses**
Tianqi Guo, Henriette Weber, Michael C.E. Niemann, Lisa Theisl, Georgeta Leonte, Ondřej Novák, and Tomáš Werner
- 1935 Suppression of LjBAK1-mediated immunity by SymRK promotes rhizobial infection in *Lotus japonicus***
Yong Feng, Ping Wu, Chao Liu, Liwei Peng, Tao Wang, Chao Wang, Qian Tan, Bixuan Li, Yajuan Ou, Hui Zhu, Songli Yuan, Renliang Huang, Gary Stacey, Zhongming Zhang, and Yangrong Cao
- Research Report**
- 1951 Direct acetylation of a conserved threonine of RIN4 by the bacterial effector HopZ5 or AvrBsT activates RPM1-dependent immunity in *Arabidopsis***
Sera Choi, Maxim Prokchorchik, Hyeonjung Lee, Ravi Gupta, Yoonyoung Lee, Eui-Hwan Chung, Buhyeon Cho, Min-Sung Kim, Sun Tae Kim, and Kee Hoon Sohn



On The Cover

A cell wall-localized NLR recognizes *Soybean mosaic virus* and induces cell death. *Soybean mosaic virus* infection leads to the accumulation of viral-encoded cylindrical inclusion protein (CI) in the primary-infected leaf tissue. Cell wall-localized CC-NBS-LRR type NLR protein Rsc4-3 recognizes CI in the apoplast, induces cell death in the infected and adjacent cells, and inhibits viral infection in plants. The interaction between Rsc4-3 and *Soybean mosaic virus* demonstrates an emerging role of apoplast in NLR-triggered plant immune responses. Image by: Jinlong Yin and Yapei Wang.

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