IN BRIEF

Early Signaling Events in Mechanosensing  
Nancy R. Hofmann

The Jasmonate Receptor: Protein Modeling and Photoaffinity Labeling  
Reveal That the CORONATINE INSENSITIVE1 Protein Binds  
Jasmonoyl-Isoleucine and Coronatine  
Jennifer Mach

On the Origin of Cortical Microtubules  
Kathleen L. Farquharson

REVIEW

Association Mapping: Critical Considerations Shift from Genotyping to  
Experimental Design  
Sean Myles, Jason Peiffer, Patrick J. Brown, Elhan S. Ersoz, Zhiwu Zhang,  
Denise E. Costich, and Edward S. Buckler

RESEARCH ARTICLES

Transcript Profiling Provides Evidence of Functional Divergence  
and Expression Networks among Ribosomal Protein Gene Paralogs  
in Brassica napus  
Carrie A. Whittle and Joan E. Krochko

The Arabidopsis CORONATINE INSENSITIVE1 Protein Is a  
Jasmonate Receptor  
Jianbin Yan, Chi Zhang, Min Gu, Zhiyan Bai, Weiguo Zhang, Tiancong Qi,  
Zhiwei Cheng, Wen Peng, Haibin Luo, Fajun Nan, Zhao Wang,  
and Daoxin Xie

The Mediator Complex Subunit PFT1 Is a Key Regulator of  
Jasmonate-Dependent Defense in Arabidopsis  
Brendan N. Kidd, Cameron I. Edgar, Krish K. Kumar, Elizabeth A. Aitken,  
Peer M. Schenk, John M. Manners, and Kemal Kazan

Abscisic Acid Represses Growth of the Arabidopsis Embryonic Axis  
after Germination by Enhancing Auxin Signaling  
Christophe Belin, Christian Megies, Eva Hauserová, and Luis Lopez-Molina

Differential Recruitment of WOX Transcription Factors for Lateral  
Development and Organ Fusion in Petunia and Arabidopsis  
Michiel Vandenbussche, Anneke Horstman, Jan Zethof, Ronald Koes,  
Anneke S. Rijpkema, and Tom Gerats

ON THE COVER

Dynamic signaling events across the nuclear envelope are an important component of plant immune responses. Cheng et al. (pages 2506–2520) report cloning and analysis of Arabidopsis MOS7/Nup88, which encodes a nucleoporin-like protein that functions in regulating nuclear export of certain defense proteins. MOS7 is a homolog of human and Drosophila Nup88, which regulates nuclear export of activated NF-κB transcription factors. mos7 mutant plants show marked reduction in nuclear retention of SNC1 and the immune regulators EDS1 and NPR1 and exhibit specific defects in immune responses, suggesting that plant defense outputs are regulated by MOS7-mediated modulation of the nuclear concentration of defense proteins. The cover displays a confocal image of leaf pavement cells stained with propidium iodide (red/magenta) showing nuclear rim localization of MOS7-GFP (green).
SUMO E3 Ligase HIGH PLOIDY2 Regulates Endocycle Onset and Meristem Maintenance in Arabidopsis

Takashi Ishida, Sumire Fujiwara, Kenji Miura, Nicola Stacey, Mika Yoshimura, Katja Schneider, Sumiko Adachi, Kazunori Minamisawa, Masaaki Umeda, and Keiko Sugimoto

Arabidopsis Cortical Microtubules Are Initiated along, as Well as Branching from, Existing Microtubules

Jordi Chan, Adrian Sambade, Grant Calder, and Clive Lloyd

The Trihelix Transcription Factor GTL1 Regulates Ploidy-Dependent Cell Growth in the Arabidopsis Trichome

Christian Breuer, Ayako Kawamura, Takanari Ichikawa, Rumi Tominaga-Wada, Takui Wada, Youichi Kondou, Shu Muto, Minami Matsui, and Keiko Sugimoto

MATE Transporters Facilitate Vacuolar Uptake of Epicatechin 3’-O-Glucoside for Proanthocyanidin Biosynthesis in Medicago truncatula and Arabidopsis

Jian Zhao and Richard A. Dixon

Ca2+ Regulates Reactive Oxygen Species Production and pH during Mechano-sensing in Arabidopsis Roots

Gabriele B. Monshausen, Tatiana N. Bibikova, Manfred H. Weisenseel, and Simon Gilroy

Phospholipase Dα1 and Phosphatidic Acid Regulate NADPH Oxidase Activity and Production of Reactive Oxygen Species in ABA-Mediated Stomatal Closure in Arabidopsis

Yanyan Zhang, Huiying Zhu, Qun Zhang, Maoyin Li, Min Yan, Rong Wang, Liling Wang, Ruth Welti, Wenhua Zhang, and Xuemin Wang

Biochemical Insights on Degradation of Arabidopsis DELLA Proteins Gained From a Cell-Free Assay System

Feng Wang, Danneng Zhu, Xi Huang, Shuang Li, Yinan Gong, Qinfang Yao, Xiangdong Fu, Liu-Min Fan, and Xing Wang Deng

Defining the Far-Red Limit of Photosystem II in Spinach

Anders Thapper, Fikret Mamedov, Fredrik Mokvist, Leif Hammarström, and Stenbörn Styring

Arabidopsis STN7 Kinase Provides a Link between Short- and Long-Term Photosynthetic Acclimation

Paolo Pesaresi, Alexander Hertle, Mathias Pribil, Tatjana Kleine, Raik Wagner, Henning Strissel, Anna Ihnatowicz, Veronique Planchot, Javier Pozueta-Romero, Christophe D’Hulst, and Dario Leister

Biochemical and Structural Studies of the Large Ycf4-Photosystem I Assembly Complex of the Green Alga Chlamydomonas reinhardtii

Shin-ichiro Ozawa, Jon Nielsd, Akihiro Terao, Einar J. Stauber, Michael Scharfenberg, Anja Schneider, Thomas Pfannschmidt, and Dario Leister

Starch Granule Initiation in Arabidopsis Requires the Presence of Either Class IV or Class III Starch Synthases

Nicolas Szydlowski, Paula Ragel, Sandy Raynaud, M. Mercedes Lucas, Isaac Roldán, Manuel Montero, Francisco José Muñoz, Miroslav Ovecka, Abdellatif Bahaji, Véronique Planco, Javier Pozueta-Romero, Christophe D’Hulst, and Angel Mérida

Proteolysis of a Negative Regulator of Innate Immunity Is Dependent on Resistance Genes in Tomato and Nicotiana benthamiana and Induced by Multiple Bacterial Effectors

Yao Luo, Katherine S. Caldwell, Tadeusz Wroblewski, Michael E. Wright, and Richard W. Michelmore

A Serine Carboxypeptidase-Like Acyltransferase Is Required for Synthesis of Antimicrobial Compounds and Disease Resistance in Oats

Sam T. Mugford, Xiaoquan Qi, Saleha Bakht, Lionel Hill, Eva Wegel, Richard K. Hughes, Kallioi Papadopoulos, Rachel Melton, Mark Philo, Frank Sainsbury, George P. Lomonossoff, Abhijeet Deb Roy, Rebecca J.M. Goss, and Anne Osbourn
Control of Nuclear and Nucleolar Localization of Nuclear Inclusion Protein a of Picorna-Like Potato virus A in Nicotiana Species
Minna-Liisa Rajamäki and Jari P.T. Valkonen

Nuclear Pore Complex Component MOS7/Nup88 Is Required for Innate Immunity and Nuclear Accumulation of Defense Regulators in Arabidopsis
Yu Ti Cheng, Hugo Germain, Marcel Wiermer, Dongling Bi, Fang Xu, Ana V. García, Lennart Wirthmueller, Charles Després, Jane E. Parker, Yueling Zhang, and Xin Li

The Colletotrichum orbiculare ssd1 Mutant Enhances Nicotiana benthamiana Basal Resistance by Activating a Mitogen-Activated Protein Kinase Pathway
Shigeyuki Tanaka, Nobuaki Ishihama, Hirofumi Yoshioka, Aurélie Huser, Richard O’Connell, Gento Tsuji, Seiji Tsuge, and Yasuyuki Kubo

ETHYLENE INSENSITIVE3 and ETHYLENE INSENSITIVE3-LIKE1 Repress SALICYLIC ACID INDUCTION DEFICIENT2 Expression to Negatively Regulate Plant Innate Immunity in Arabidopsis
Huamin Chen, Li Xue, Satya Chintamanani, Hugo Germain, Huiqiong Lin, Haitao Cui, Run Cai, Jianru Zuo, Xiaoyan Tang, Xin Li, Hongwei Guo, and Jian-Min Zhou

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