ON THE COVER

While in most plant species, the switch to flowering is very stable, a few species and mutant plants switch back from flower to leaf production, which is termed floral reversion. In the model plant Arabidopsis thaliana, Müller-Xing et al. (pages 2457–2471) studied mutants for Polycomb-group (Pc-G) genes that encode epigenetic regulators for their role in maintaining floral induction. They revealed a key function for Pc-G proteins, as the mutants show floral reversion when plants are shifted from flowering inducing to noninducing conditions. Thus, Pc-G mutants do not remember induction of flowering and revert back to a previous stage in their lifecycle. The cover shows floral reversion in the Arabidopsis line clf-28 swn-7 CLFpro:CLF-GR (left) after a shift to short-day conditions and naturally occurring floral reversion in the ornamental plant Crown Imperial (Fritillaria imperialis; right; photo by Qian Xing).

IN BRIEF

When to Hold Them: Retention of Duplicate Genes in Poplar 2283
Jennifer Mach

POK Marks the Spot: Kinesin-12 Proteins Are Spatial Markers of the Site Transiently Occupied by the Preprophase Band 2284
Kathleen L. Farquharson

REVIEW

Intervention of Phytohormone Pathways by Pathogen Effectors 2285
Kemal Kazan and Rebecca Lyons

LARGE-SCALE BIOLOGY ARTICLES

Systems Analysis of the Response of Photosynthesis, Metabolism, and Growth to an Increase in Irradiance in the Photosynthetic Model Organism Chlamydomonas reinhardtii 2310

The Functional Topography of the Arabidopsis Genome Is Organized in a Reduced Number of Linear Motifs of Chromatin States 2351
Joana Sequeira-Mendes, Irene Aragüez, Ramón Peiró, Raul Mendez-Giraldez, Xiaoyu Zhang, Steven E. Jacobsen, Ugo Bastolla, and Crisanto Gutierrez

Meta-Analysis of Arabidopsis thaliana Phospho-Proteomics Data Reveals Compartmentalization of Phosphorylation Motifs 2367
Klaas J. van Wijk, Giulia Friso, Dirk Walther, and Waltraud X. Schulze

A Scalable Open-Source Pipeline for Large-Scale Root Phenotyping of Arabidopsis 2390
Radka Slovak, Christian Göscht, Xiaoxue Su, Koji Shimotani, Takashi Shina, and Wolfgang Busch

RESEARCH ARTICLES

Subcellular Relocalization and Positive Selection Play Key Roles in the Retention of Duplicate Genes of Populus Class III Peroxidase Family 2404
Lin-Ling Ren, Yan-Jing Liu, Hai-Jing Liu, Ting-Ting Qian, Li-Wang Qi, Xiao-Ru Wang, and Qing-Yin Zeng
Comparative Analysis of Miscanthus and Saccharum Reveals a Shared Whole-Genome Duplication but Different Evolutionary Fates 2420

Changsoo Kim, Xiying Wang, Tae-Ho Lee, Katrin Jakob, Geung-Joo Lee, and Andrew H. Paterson

A Role for CHH Methylation in the Parent-of-Origin Effect on Altered Circadian Rhythms and Biomass Heterosis in Arabidopsis 2430

Intraspecific Hybrids 2430

Danny W.-K. Ng, Marisa Miller, Helen H. Yu, Tien-Yu Huang, Eun-Deok Kim, Jie Liu, Qiguang Xie, C. Robertson McClung, and Z. Jeffrey Chen

COP1 and phyB Physically Interact with PPL1 to Regulate Its Stability and Photomorphogenic Development in Arabidopsis 2440

Qian Luo, Hong-Li Lian, Sheng-Bo He, Ling Li, Kun-Peng Jia, and Hong-Quan Yang

Polycomb-Group Proteins and FLOWERING LOCUS T Maintain Commitment to Flowering in Arabidopsis thaliana 2457

Ralf Müller-Xing, Oliver Clarens, Lena Pokorny, Justin Goodrich, and Daniel Schubert

The Chromatin-Remodeling Factor PICKLE Integrates Brassinosteroid and Gibberellin Signaling during Skotomorphogenic Growth in Arabidopsis 2472

Dong Zhang, Yanjun Jing, Zhimin Jiang, and Rongcheng Lin

The bHLH142 Transcription Factor Coordinates with TDR1 to Modulate the Expression of EAT1 and Regulate Pollen Development in Rice 2486

Swee-Suak Ko, Min-Jeng Li, Maurice Sun-Ben Ku, Yi-Cheng Ho, Yi-Jyun Lin, Ming-Hsing Chuang, Hong-Xian Hsing, Yi-Chen Lien, Hui-Ting Yang, Hung-Chia Chang, and Ming-Tsair Chan

Tomato Pistil Factor STIG1 Promotes in Vivo Pollen Tube Growth by Binding to Phosphatidylinositol 3-Phosphate and the Extracellular Domain of the Pollen Receptor Kinase LeFRK2 2505

Wei-Jie Huang, Hai-Kuan Liu, Sheila McCormick, and Wei-Hua Tang

An Uncharacterized Apocarotenoid-Derived Signal Generated in \(\beta\)-Carotene Desaturase Mutants Regulates Leaf Development and the Expression of Chloroplast and Nuclear Genes in Arabidopsis 2524

Aida-Odette Avendano-Vazquez, Elizabeth Cordoba, Ernesto Llamas, Carolina San Román, Nazia Nisar, Susana De la Torre, Maricela Ramos-Vega, Maria de la Luz Gutierrez-Nava, Christopher Ian Cazzonelli, Barry James Pogson, and Patricia Leon

The Receptor-Like Kinase SIT1 Mediates Salt Sensitivity by Activating MAPK3/6 and Regulating Ethylene Homeostasis in Rice 2538

Chen-Hui Li, Geng Wang, Ji-Long Zhao, Li-Qing Zhang, Lian-Feng Ai, Yong-Feng Han, Da-Ye Sun, Sheng-Wei Zhang, and Ying Sun

A Single-Pore Residue Renders the Arabidopsis Root Anion Channel SLAH2 Highly Nitrate Selective 2554

Tobias Maierhofer, Christof Lind, Stefanie Hüttl, Sónke Scherzer, Melanie Papenburg, Judy Simon, Khaled A.S. Al-Rasheid, Peter Ache, Heinz Rennenberg, Rainer Hedrich, Thomas D. Müller, and Dietmar Geiger

Plasticity in Cell Division Patterns and Auxin Transport Dependency during in Vitro Embryogenesis in Brassica napus 2568

Mercedes Soriano, Hui Li, Cédric Jacquard, Gerco C. Angenent, Joan Krochko, Remko Offringa, and Kim Boutilier

Proline responding1 Plays a Critical Role in Regulating General Protein Synthesis and the Cell Cycle in Maize 2582

Gang Wang, Jushan Zhang, Guifeng Wang, Xiangyu Fan, Xin Sun, Hongli Qin, Nan Xu, Mingyu Zhong, Zhenyi Qiao, Yuanping Tang, and Rentao Song

The jiaoyao1 Mutant Is an Allele of korrigan1 That Abolishes Endoglucanase Activity and Affects the Organization of Both Cellulose Microfibrils and Microtubules in Arabidopsis 2601

Lei Lei, Tian Zhang, Richard Strasser, Christopher M. Lee, Martine Gonneau, Lukas Mach, Samantha Verhnettes, Seong H. Kim, Daniel Cosgrove, Shundai Li, and Ying Gu
The Phragmoplast-Orienting Kinesin-12 Class Proteins Translate the Positional Information of the Preprophase Band to Establish the Cortical Division Zone in Arabidopsis thaliana

Elisabeth Lipka, Astrid Gadeyne, Dorothee Stückle, Steffi Zimmermann, Geert De Jaeger, David W. Ehrhardt, Viktor Kirk, Daniel Van Damme, and Sabine Müller

The Cyclin-Dependent Kinase Inhibitor KRP6 Induces Mitosis and Impairs Cytokinesis in Giant Cells Induced by Plant-Parasitic Nematodes in Arabidopsis

Paulo Vieira, Annelies De Clercq, Hilde Stals, Jelle Van Leene, Eveline Van De Slijk, Gert Van Isterdael, Dominique Eckhout, Geert Persiau, Daniël Van Damme, Aurine Verkest, José Dijair Antonino de Souza, Jűnior, Nathalie Glab, Pierre Abad, Gilbert Engler, Dirk Inzé, Lieven De Veylder, Geert De Jaeger, and Janice de Almeida Engler

Transposable Element Insertion and Epigenetic Modification Cause the Multiallelic Variation in the Expression of FAE1 in Sinapis alba

Fangqin Zeng and Bifang Cheng

REPRESSOR OF SILENCING5 Encodes a Member of the Small Heat Shock Protein Family and Is Required for DNA Demethylation in Arabidopsis

Yusheng Zhao, Shaojun Xie, Xiaojie Li, Chunlei Wang, Zhongzhou Chen, Jinseng Lai, and Zhizhong Gong

Environmental History Modulates Arabidopsis Pattern-Triggered Immunity in a HISTONE ACETYLTRANSFERASE1–Dependent Manner

Prashant Singh, Shweta Yekondi, Po-Wen Chen, Chia-Hong Tsai, Chun-Wei Yu, Keqiang Wu, and Laurent Zimmerli

Rewiring Host Lipid Metabolism by Large Viruses Determines the Fate of Emiliania huxleyi, a Bloom-Forming Alga in the Ocean

Shilo Rosenwasser, Michaela A. Mauze, Daniella Schatz, Uri Sheyn, Sergey Malitsky, Asaph Aharoni, Eyal Weinstock, Oren Tzfadia, Shifra Ben-Dor, Ester Feldmesser, Georg Pohnert, and Assaf Vardi

N-Acyl-Homoserine Lactone Primes Plants for Cell Wall Reinforcement and Induces Resistance to Bacterial Pathogens via the Salicylic Acid/Oxylipin Pathway

Sebastian T. Schenk, Casandra Hernández-Reyes, Birgit Samans, Elke Stein, Christina Neumann, Marek Schikora, Michael Reichelt, Axel Mithöfer, Annette Becker, Karl-Heinz Kogel, and Adam Schikora

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