ON THE COVER

Leaf variegation in Arabidopsis yellow variegated (var) mutants is due to a defect in chloroplast FtsH proteases involved in degradation of chloroplast proteins. Miura et al. (pages 1313–1328) identify trans-acting factors that suppress leaf variegation in Arabidopsis var mutants. These second-site mutations, including fug1 and sco1, encode proteins involved in chloroplast protein synthesis, leading the authors to propose that the balance between protein synthesis and degradation is one of the key factors determining the variegated phenotype in Arabidopsis leaves. The cover image shows an Arabidopsis var2 mutant against a background of an electron micrograph of chloroplasts from a var2 fug1 double mutant, which lacks variegation and shows chloroplast structures comparable to those of the wild type, unlike the var2 single mutant in which thylakoids and chloroplasts in pale sectors do not develop. See also the accompanying In This Issue article on pages 1135–1138.

IN THIS ISSUE
Thylakoid Development from Biogenesis to Senescence, and Ruminations on Regulation
Nancy A. Eckardt

IN BRIEF
Mitochondrial Recombination Surveillance
1139
G Protein γ Subunits Provide Functional Selectivity
Nancy A. Eckardt

CURRENT PERSPECTIVE ESSAY
Making Holes in Leaves: Promoting Cell State Transitions in Stomatal Development
M. Kathryn Barton

RESEARCH ARTICLES
Maize Histone Deacetylase hda101 Is Involved in Plant Development, Gene Transcription, and Sequence-Specific Modulation of Histone Modification of Genes and Repeats
Vincenzo Rossi, Sabrina Locatelli, Serena Varotto, Guenter Donn, Raul Pirona, David A. Henderson, Hans Hartings, and Mario Motto

Characterization of the VIER F-BOX PROTEINE Genes from Arabidopsis Reveals Their Importance for Plant Growth and Development
Katja M. Schwager, Luz Irina A. Calderon-Villalobos, Esther M.N. Dohmann, Björn C. Willige, Stephan Knierer, Carola Nill, and Claus Schwechheimer

Replication-Independent Long-Distance Trafficking by Viral RNAs in Nicotiana benthamiana
Kodetham Gopinath and C. Cheng Kao

PIL5, a Phytochrome-Interacting bHLH Protein, Regulates Gibberellin Responsiveness by Binding Directly to the GAI and RGA Promoters in Arabidopsis Seeds
Eunkyoo Oh, Shinjiro Yamaguchi, Jianhong Hu, Jikumaru Yusuuke, Byunghyuck Jung, Inyup Paik, Hee-Seung Lee, Tai-ping Sun, Yuji Kamiya, and Giltsu Choi
The DELLA Domain of GA INSENSITIVE Mediates the Interaction with the GA INSENSITIVE DWARF1A Gibberellin Receptor of Arabidopsis

Bjorn C. Willige, Soumya Ghosh, Carola Nill, Melina Zourelidou, Esther M.N. Dehmann, Andreas Maier, and Claus Schwechheimer

An ERF Transcription Factor in Medicago truncatula That Is Essential for Nod Factor Signal Transduction


Heterotrimeric G Protein γ Subunits Provide Functional Selectivity in Gβγ Dimer Signaling in Arabidopsis

Yuri Trusov, James Edward Rookes, Kimberley Tilbrook, David Chakravorty, Michael Glenn Mason, David Anderson, Jin-Gui Chen, Alan M. Jones, and Jose Ramon Botella

Plant Mitochondrial Recombination Surveillance Requires Unusual RecA and MutS Homologs

Vikas Shedge, Maria Arrieta-Montiel, Alan C. Christensen, and Sally A. Mackenzie

The Arabidopsis D-Type Cyclin CYCD4 Controls Cell Division in the Stomatal Lineage of the Hypocotyl Epidermis

Atsushi Kono, Chikage Umeda-Hara, Sumiko Adachi, Noriko Nagata, Mami Konomi, Tsuyoshi Nakagawa, Hirofumi Uchimiya, and Masaaki Umeda

The Transcription Factor WIN1/SHN1 Regulates Cutin Biosynthesis in Arabidopsis thaliana

Rubini Kannangara, Caroline Branigan, Yan Liu, Teresa Penfield, Vijaya Rao, Grezgorz Mouille, Herman Hofte, Markus Pauly, Jose Luis Rheinmann, and Pierre Broun

The Arabidopsis AAA ATPase SKD1 Is Involved in Multivesicular Endosome Function and Interacts with Its Positive Regulator LYST-INTERACTING PROTEINS

Thomas J. Haas, Marek K. Sliwinski, Dana E. Martinez, Mary Preuss, Kazuo Ebine, Takashi Ueda, Erik Nielsen, Greg Odorizzi, and Marisa S. Otegui

The Balance between Protein Synthesis and Degradation in Chloroplasts Determines Leaf Variegation in Arabidopsis yellow variegated Mutants

Eiko Miura, Yusuke Kato, Ryo Matsushima, Verónica Albrecht, Soumaya Laalami, and Wataru Sakamoto

The Nuclear-Encoded Factor HCF173 Is Involved in the Initiation of Translation of the psbA mRNA in Arabidopsis thaliana

Kerstin Schult, Karin Meierhoff, Susanne Paradies, Thomas Toeller, Petra Wolff, and Peter Westhoff

Formation of DEG5 and DEG8 Complexes and Their Involvement in the Degradation of Photodamaged Photosystem II Reaction Center D1 Protein in Arabidopsis

Xuwu Sun, Lianwei Peng, Jinkui Guo, Wei Chi, Jinfang Ma, Congming Lu, and Lixin Zhang

Rice NON-YELLOW COLORING1 Is Involved in Light-Harvesting Complex II and Grana Degradation during Leaf Senescence

Makoto Kusaba, Hisashi Ito, Ryouhei Morita, Shuichi Iida, Yutaka Sato, Masaru Fujimoto, Shinji Kawasaki, Ryouchi Tanaka, Hirohiko Hirochika, Minoru Nishimura, and Ayumi Tanaka

MONODEHYROASCORBATE REDUCTASE4 Is Required for Seed Storage Oil Hydrolysis and Postgerminative Growth in Arabidopsis

Peter J. Eastmond

Roles of Arabidopsis Cyclin-Dependent Kinase C Complexes in Cauliflower Mosaic Virus Infection, Plant Growth, and Development

Xiaofeng Cui, Baofang Fan, James Scholz, and Zhixiang Chen
SIZ1-Mediated Sumoylation of ICE1 Controls CBF3/DREB1A Expression and Freezing Tolerance in Arabidopsis

Kenji Miura, Jing Bo Jin, Jiyoung Lee, Chan Yul Yoo, Vicki Stirm, Tomoko Miura, Edward N. Ashworth, Ray A. Bressan, Dae-Jin Yun, and Paul M. Hasegawa

SCABP8/CBL10, a Putative Calcium Sensor, Interacts with the Protein Kinase SOS2 to Protect Arabidopsis Shoots from Salt Stress

Ruidang Quan, Huixin Lin, Imelda Mendoza, Yuguo Zhang, Wanhong Cao, Yongqing Yang, Mei Shang, Shouyi Chen, José M. Pardo, and Yan Guo

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