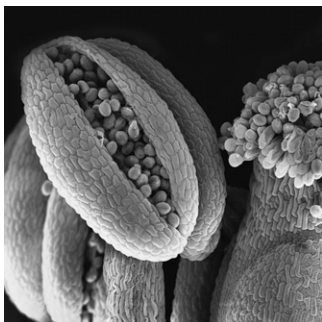


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ON THE COVER



Anther development depends on coordinated cell expansion in order to elongate filaments and dehisce anthers. Bassil et al. (pages 3482–3497) provide evidence that two members of the *Arabidopsis* Na^+/H^+ -type family of vacuolar antiporters (NHX), NHX1 and NHX2, are specifically required for cell expansion, particularly in rapidly elongating tissues such as filaments and hypocotyls. The authors demonstrate that NHX1 and NHX2 control intravacuolar potassium and pH to regulate cell expansion. The lack of NHX1 and NHX2 leads to short filaments, nondehiscent anthers, unsuccessful pollination, and a lack of silique formation. The cover displays a scanning electron micrograph of a dehiscent anther about to release its pollen.




IN BRIEF

- Function and Evolution of a MicroRNA with a Role in Reproductive Growth in Tomato** 3083
Nancy A. Eckardt
- TERMINAL FLOWER1 Acts in Transcriptional Repression** 3084
Jennifer Mach
- MutS HOMOLOG1 Stabilizes Plastid and Mitochondrial Genomes** 3085
Nancy R. Hofmann
- A Sense of Self: Exploring the Selfing Syndrome in *Capsella*** 3086
Nancy A. Eckardt
- Functional Analysis of *Arabidopsis* NHX Antiporters: The Role of the Vacuole in Cellular Turgor and Growth** 3087
Nancy A. Eckardt and Gerald A. Berkowitz


REVIEW

- The JAZ Proteins: A Crucial Interface in the Jasmonate Signaling Cascade** 3089
Laurens Pauwels and Alain Goossens

LARGE-SCALE BIOLOGY ARTICLES

- Functional Network Construction in *Arabidopsis* Using Rule-Based Machine Learning on Large-Scale Data Sets**   3101
George W. Bassel, Enrico Glaab, Julietta Marquez, Michael J. Holdsworth, and Jaume Bacardit
- Targeted Identification of Short Interspersed Nuclear Element Families Shows Their Widespread Existence and Extreme Heterogeneity in Plant Genomes**  3117
Torsten Wenke, Thomas Döbel, Thomas Rosleff Sørensen, Holger Junghans, Bernd Weisshaar, and Thomas Schmidt

RESEARCH ARTICLES

- Changes in Twelve Homoeologous Genomic Regions in Soybean following Three Rounds of Polyploidy**  3129
Andrew J. Severin, Steven B. Cannon, Michelle M. Graham, David Grant, and Randy C. Shoemaker

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- Nonessential Plastid-Encoded Ribosomal Proteins in Tobacco: A Developmental Role for Plastid Translation and Implications for Reductive Genome Evolution** [W](#) [O](#) [A](#) 3137
Tobias T. Fleischmann, Lars B. Scharff, Sibah Alkatib, Sebastian Hasdorf, Mark A. Schöttler, and Ralph Bock
- Genetics, Evolution, and Adaptive Significance of the Selfing Syndrome in the Genus *Capsella*** [C](#) [W](#) [O](#) [A](#) 3156
Adrien Sicard, Nicola Stacey, Katrin Hermann, Jimmy Dessoly, Barbara Neuffer, Isabel Bäurle, and Michael Lenhard
- Arabidopsis* TERMINAL FLOWER1 Is Involved in the Regulation of Flowering Time and Inflorescence Development through Transcriptional Repression** [C](#) [W](#) [O](#) [A](#) 3172
Shigeru Hanano and Koji Goto
- Function and Evolution of a MicroRNA That Regulates a Ca²⁺-ATPase and Triggers the Formation of Phased Small Interfering RNAs in Tomato Reproductive Growth** [W](#) [O](#) [A](#) 3185
Ying Wang, Asuka Itaya, Xuehua Zhong, Yang Wu, Jianfeng Zhang, Esther van der Knaap, Richard Olmstead, Yijun Qi, and Biao Ding
- Tissue-Specific Expression of *FLOWERING LOCUS T* in *Arabidopsis* Is Maintained Independently of Polycomb Group Protein Repression** [W](#) [O](#) [A](#) 3204
Sara Farrona, Frazer L. Thorpe, Julia Engelhorn, Jessika Adrian, Xue Dong, Liron Sarid-Krebs, Justin Goodrich, and Franziska Turck
- A Wheat Homolog of MOTHER OF FT AND TFL1 Acts in the Regulation of Germination** [W](#) [O](#) [A](#) 3215
Shingo Nakamura, Fumitaka Abe, Hiroyuki Kawahigashi, Kou Nakazono, Akemi Tagiri, Takashi Matsumoto, Shigeko Utsugi, Taiichi Ogawa, Hirokazu Handa, Hiroki Ishida, Masahiko Mori, Kanako Kawaura, Yasunari Ogihara, and Hideho Miura
- A Reduced-Function Allele Reveals That *EARLY FLOWERING3* Repressive Action on the Circadian Clock Is Modulated by Phytochrome Signals in *Arabidopsis*** [C](#) [W](#) [O](#) [A](#) 3230
Elsebeth Kolmos, Eva Herrero, Nora Bujdoso, Andrew J. Millar, Réka Tóth, Peter Gyula, Ferenc Nagy, and Seth J. Davis
- WOX4* Imparts Auxin Responsiveness to Cambium Cells in *Arabidopsis*** [C](#) [W](#) [O](#) [A](#) 3247
Stefanie Suer, Javier Agusti, Pablo Sanchez, Martina Schwarz, and Thomas Greb
- Molecular Profiling of Stomatal Meristemoids Reveals New Component of Asymmetric Cell Division and Commonalities among Stem Cell Populations in *Arabidopsis*** [C](#) [W](#) [O](#) [A](#) 3260
Lynn Jo Pillitteri, Kylee M. Peterson, Robin J. Horst, and Keiko U. Torii
- LAX PANICLE2* of Rice Encodes a Novel Nuclear Protein and Regulates the Formation of Axillary Meristems** [W](#) 3276
Hiroaki Tabuchi, Yu Zhang, Susumu Hattori, Minami Omae, Sae Shimizu-Sato, Tetsuo Oikawa, Qian Qian, Minoru Nishimura, Hidemi Kitano, He Xie, Xiaohua Fang, Hitoshi Yoshida, Junko Kyoizuka, Fan Chen, and Yutaka Sato
- POD1 Regulates Pollen Tube Guidance in Response to Micropylar Female Signaling and Acts in Early Embryo Patterning in *Arabidopsis*** [W](#) [O](#) [A](#) 3288
Hong-Ju Li, Yong Xue, Dong-Jie Jia, Tong Wang, Dong-Qiao Shi, Jie Liu, Feng Cui, Qi Xie, De Ye, and Wei-Cai Yang

- Biosynthesis and Defensive Function of *N*⁶-Acetylornithine, a Jasmonate-Induced *Arabidopsis* Metabolite** [C](#)[W](#) 3303
Adewale M. Adio, Clare L. Casteel, Martin De Vos, Jae Hak Kim, Vijay Joshi, Baohua Li, Caroline Juéry, Josquin Daron, Daniel J. Kliebenstein, and Georg Jander
- The Transcription Factor ABI4 Is Required for the Ascorbic Acid-Dependent Regulation of Growth and Regulation of Jasmonate-Dependent Defense Signaling Pathways in *Arabidopsis*** [C](#)[W](#) 3319
Pavel I. Kerchev, Till K. Pellny, Pedro Diaz Vivancos, Guy Kiddle, Peter Hedden, Simon Driscoll, Hélène Vanacker, Paul Verrier, Robert D. Hancock, and Christine H. Foyer
- The Basic Helix-Loop-Helix Transcription Factor MYC2 Directly Represses *PLETHORA* Expression during Jasmonate-Mediated Modulation of the Root Stem Cell Niche in *Arabidopsis*** [W](#)[O](#)[A](#) 3335
Qian Chen, Jiaqiang Sun, Qingzhe Zhai, Wenkun Zhou, Linlin Qi, Li Xu, Bao Wang, Rong Chen, Hongling Jiang, Jing Qi, Xugang Li, Klaus Palme, and Chuanyou Li
- A Plasmodesmata-Localized Protein Mediates Crosstalk between Cell-to-Cell Communication and Innate Immunity in *Arabidopsis*** [C](#)[W](#)[O](#)[A](#) 3353
Jung-Youn Lee, Xu Wang, Weier Cui, Ross Sager, Shannon Modla, Kirk Czymbek, Boris Zybaliyov, Klaas van Wijk, Chong Zhang, Hua Lu, and Venkatachalam Lakshmanan
- Arabidopsis* RTNLB1 and RTNLB2 Reticulon-Like Proteins Regulate Intracellular Trafficking and Activity of the FLS2 Immune Receptor** [C](#)[W](#) 3374
Hyoung Yool Lee, Christopher Hyde Bowen, George Viorel Popescu, Hong-Gu Kang, Naohiro Kato, Shisong Ma, Savithramma Dinesh-Kumar, Michael Snyder, and Sorina Claudia Popescu
- CFL1, a WW Domain Protein, Regulates Cuticle Development by Modulating the Function of HDG1, a Class IV Homeodomain Transcription Factor, in Rice and *Arabidopsis*** [W](#) 3392
Renhong Wu, Shibai Li, Shan He, Friedrich Waßmann, Caihong Yu, Genji Qin, Lukas Schreiber, Li-Jia Qu, and Hongya Gu
- Salt Stress-Induced Disassembly of *Arabidopsis* Cortical Microtubule Arrays Involves 26S Proteasome-Dependent Degradation of SPIRAL1** [C](#)[W](#)[O](#)[A](#) 3412
Songhu Wang, Jasmina Kurepa, Takashi Hashimoto, and Jan A. Smalle
- MutS HOMOLOG1 Is a Nucleoid Protein That Alters Mitochondrial and Plastid Properties and Plant Response to High Light** [W](#)[O](#)[A](#) 3428
Ying-Zhi Xu, Maria P. Arrieta-Montiel, Kamaldeep S. Virdi, Wilson B.M. de Paula, Joshua R. Widhalm, Gilles J. Basset, Jaime I. Davila, Thomas E. Elthon, Christian G. Elowsky, Shirley J. Sato, Thomas E. Clemente, and Sally A. Mackenzie
- Identification of the 7-Hydroxymethyl Chlorophyll *a* Reductase of the Chlorophyll Cycle in *Arabidopsis*** [W](#) 3442
Miki Meguro, Hisashi Ito, Atsushi Takabayashi, Ryouichi Tanaka, and Ayumi Tanaka
- Tetrapyrrole Synthesis of Photosynthetic Chromerids Is Likely Homologous to the Unusual Pathway of Apicomplexan Parasites** [C](#)[W](#) 3454
Luděk Kořený, Roman Sobotka, Jan Janouškovec, Patrick J. Keeling, and Miroslav Oborník
- Multivesicular Bodies Mature from the *Trans*-Golgi Network/Early Endosome in *Arabidopsis*** [W](#) 3463
David Scheuring, Corrado Viotti, Falco Krüger, Fabian Künzl, Silke Sturm, Julia Bubeck, Stefan Hillmer, Lorenzo Frigerio, David G. Robinson, Peter Pimpl, and Karin Schumacher

- The *Arabidopsis* Na⁺/H⁺ Antiporters NHX1 and NHX2 Control Vacuolar pH and K⁺ Homeostasis to Regulate Growth, Flower Development, and Reproduction**   3482
Elias Bassil, Hiromi Tajima, Yin-Chih Liang, Masa-aki Ohto, Koichiro Ushijima, Ryohei Nakano, Tomoya Esumi, Ardian Coku, Mark Belmonte, and Eduardo Blumwald
- The *Xanthomonas* Type III Effector XopD Targets the *Arabidopsis* Transcription Factor MYB30 to Suppress Plant Defense**  3498
Joanne Canonne, Daniel Marino, Alain Jauneau, Cécile Pouzet, Christian Brière, Dominique Roby, and Susana Rivas
- Nicotiana attenuata* LECTIN RECEPTOR KINASE1 Suppresses the Insect-Mediated Inhibition of Induced Defense Responses during *Manduca sexta* Herbivory**   3512
Paola A. Gilardoni, Christian Hettenhausen, Ian T. Baldwin, and Gustavo Bonaventure
- Condensin II Alleviates DNA Damage and Is Essential for Tolerance of Boron Overload Stress in *Arabidopsis***  3533
Takuya Sakamoto, Yayoi Tsujimoto Inui, Shimpei Uraguchi, Takeshi Yoshizumi, Sachihiko Matsunaga, Minami Mastui, Masaaki Umeda, Kiichi Fukui, and Toru Fujiwara
- Boron-Dependent Degradation of *NIP5;1* mRNA for Acclimation to Excess Boron Conditions in *Arabidopsis***  3547
Mayuki Tanaka, Junpei Takano, Yukako Chiba, Fabien Lombardo, Yuki Ogasawara, Hitoshi Onouchi, Satoshi Naito, and Toru Fujiwara

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