ON THE COVER

Spermidine is a polyamine involved in a broad range of cellular processes in plants, fungi, and animals. Deeb et al. (pages 3678–3691) show that spermidine is involved in cell fate specification in the male gametophyte of the water fern Marsilea vestita. The work reveals how changes in spermidine abundance and distribution in the gametophyte affect gametophyte development and spermatid maturation through the release of stored Spermidine synthase (SPDS) transcripts and through interactions with cytoskeletal and nuclear components in the developing spermatids. The cover shows a section of the male gametophyte of M. vestita labeled with anticentrin antibody, which localizes to basal bodies (red dots) in the developing spermatids. SPDS silencing was shown to affect the formation and distribution of basal bodies, along with other key features of spermatid development.

IN BRIEF

Linking Multivesicular Bodies to Resistance against Fungal Invasion 3505
Nancy R. Hofmann

Temperature Compensation of the Circadian Clock: A Role for the Morning Loop 3506
Nancy A. Eckardt

A Functional Nitric Oxide Synthase in Ostreococcus tauri 3507
Nancy A. Eckardt

RESEARCH ARTICLES

Structural and Metabolic Transitions of C₄ Leaf Development and Differentiation Defined by Microscopy and Quantitative Proteomics in Maize 3509
Wojciech Majeran, Giulia Friso, Lalit Ponnala, Brian Connolly, Mingshu Huang, Edwin Reidel, Cankui Zhang, Yukari Asakura, Nazmul H. Bhuiyan, Qi Sun, Robert Turgeon, and Klaas J. van Wijk

B-Function Expression in the Flower Center Underlies the Homeotic Phenotype of Lacandonia schismatica (Triuridaceae) 3543
Elena R. Álvarez-Buylla, Barbara A. Ambrose, Eduardo Flores-Sandoval, Marie Englund, Adriana Garay-Arroyo, Berenice García-Ponce, Eduardo de la Torre-Bárzana, Silvia Espinosa-Matías, Esteban Martínez, Alma Piñeyro-Nelson, Peter Engström, and Elliot M. Meyerowitz

ABI4 Mediates Abscisic Acid and Cytokinin Inhibition of Lateral Root Formation by Reducing Polar Auxin Transport in Arabidopsis 3560
Doron Shkolnik-Inbar and Dudy Bar-Zvi

TCP Transcription Factors Regulate the Activities of ASYMMETRIC LEAVES1 and miR164, as Well as the Auxin Response, during Differentiation of Leaves in Arabidopsis 3574
Tomotsugu Koyama, Nobutaka Mitsuda, Motoaki Seki, Kazuo Shinozaki, and Masaru Ohme-Takagi

A Rice gid1 Suppressor Mutant Reveals That Gibberellin Is Not Always Required for Interaction between Its Receptor, GID1, and DELLAs Proteins 3589
Yuko Yamamoto, Takaaki Hirai, Eiji Yamamoto, Mayuko Kawamura, Tomomi Sato, Hitomi Kitano, Makoto Matsuoka, and Miyako Ueguchi-Tanaka
Altered Xylem-Phloem Transfer of Amino Acids Affects Metabolism and Leads to Increased Seed Yield and Oil Content in *Arabidopsis*™

Lizhi Zhang, Qiumin Tan, Raymond Lee, Alexander Trethewy, Yong-Hwa Lee, and Mechthild Tegeder

Ammonium Triggers Lateral Root Branching in *Arabidopsis* in an AMMONIUM TRANSPORTER1;3-Dependent Manner

Joni E. Lima, Soichi Kojima, Hideki Takahashi, and Nicolaus von Wirén

*Arabidopsis* Transcription Factor ELOGATED HYPOCOTYL5 Plays a Role in the Feedback Regulation of Phytochrome A Signaling

Jigang Li, Gang Li, Shumin Gao, Cristina Martinez, Guangming He, Zhenzhen Zhou, Xi Huang, Jae-Hoon Lee, Huiyong Zhang, Yunping Shen, Haiyang Wang, and Xing Wang Deng

The Role of the *Arabidopsis* Morning Loop Components CCA1, LHY, PRR7, and PRR9 in Temperature Compensation

Patrice A. Salomé, Detlef Weigel, and C. Robertson McClung

Members of the LATERAL ORGAN BOUNDARIES DOMAIN Transcription Factor Family Are Involved in the Regulation of Secondary Growth in *Populus*™

Yordan S. Yordanov, Sharon Regan, and Victor Busov

Spermidine Is a Morphogenetic Determinant for Cell Fate Specification in the Male Gametophyte of the Water Fern *Marsilea vestita*

Faten Deeb, Corine M. van der Weele, and Stephen M. Wolniak

*Arabidopsis* Tyrosylprotein Sulfotransferase Acts in the Auxin/PLETHORA Pathway in Regulating Postembryonic Maintenance of the Root Stem Cell Niche

Wenkun Zhou, Lirong Wei, Jian Xu, Qingzhe Zhai, Hongling Jiang, Rong Chen, Qian Chen, Jiaqiang Sun, Lihuang Zhu, Chun-Ming Liu, and Chuanyou Li

The FtsH Protease Heterocomplex in *Arabidopsis*: Dispensability of Type-B Protease Activity for Proper Chloroplast Development

Di Zhang, Yusuke Kato, Lingang Zhang, Masaru Fujimoto, Nobuhiro Tsutsumi, Sudmergen, and Wataru Sakamoto

*Arabidopsis* β-Ketoacyl-[Acyl Carrier Protein] Synthase I Is Crucial for Fatty Acid Synthesis and Plays a Role in Chloroplast Division and Embryo Development

Guo-Zhang Wu and Hong-Wei Xue

*Arabidopsis* FIMBRIN5, an Actin Bundling Factor, Is Required for Pollen Germination and Pollen Tube Growth

Youjun Wu, Jin Yan, Ruishui Zhang, Xiaolu Qu, Sulin Ren, Naizhi Chen, and Shanjun Huang

Noncanonical Translation Initiation of the *Arabidopsis* Flowering Time and Alternative Polyadenylation Regulator FCA

Gordon G. Simpson, Rebecca E. Laurie, Paul P. Dijkwel, Victor Quesada, Peter A. Stockwell, Caroline Dean, and Richard C. Macknight

The MAP Kinase MPK4 Is Required for Cytokinesis in *Arabidopsis thaliana*

Ken Kosetsu, Sachihiro Matsunaga, Hirofumi Nakagami, Jean Colcombet, Michiko Sasabe, Takashi Soyano, Yuji Takahashi, Heribert Hirt, and Yasunori Machida
Meiotic Progression in *Arabidopsis* Is Governed by Complex Regulatory Interactions between SMG7, TDM1, and the Meiosis I–Specific Cyclin TAM

Petra Bulankova, Nina Riehs-Kearnan, Moritz K. Nowack, Arp Schnittger, and Karel Riha

*Arabidopsis* Kinetochore Fiber-Associated MAP65-4 Cross-Links Microtubules and Promotes Microtubule Bundle Elongation

Vincent Fache, Jérémie Gaillard, Daniel Van Damme, Danny Geelen, Emmanuelle Neumann, Virginie Stoppin-Mellet, and Marylin Vantard

Characterization of a Nitric Oxide Synthase from the Plant Kingdom: NO Generation from the Green Alga *Ostreococcus tauri* Is Light Irradiance and Growth Phase Dependent

Noelia Foresi, Natalia Correa-Aragunde, Gustavo Parisi, Gonzalo Caló, Graciela Salerno, and Lorenzo Lamattina

The Multivesicular Body-Localized GTPase ARFA1b/1c Is Important for Callose Deposition and ROR2 Syntaxin-Dependent Preinvasive Basal Defense in Barley

Henrik Boßlenius, Sara M. Merch, Dale Godfrey, Mads E. Nielsen, and Hans Thordal-Christensen

Amino Acid Homeostasis Modulates Salicylic Acid–Associated Redox Status and Defense Responses in *Arabidopsis*

Guosheng Liu, Yuanyuan Ji, Nazmul H. Bhuiyan, Guillaume Pilot, Gopalan Selvaraj, Jitao Zou, and Yangdou Wei

Rice *xa13* Recessive Resistance to Bacterial Blight Is Defeated by Induction of the Disease Susceptibility Gene Os-1IN3

Ginny Antony, Junhui Zhou, Sheng Huang, Ting Li, Bo Liu, Frank White, and Bing Yang

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