

# T H E P L A N T C E L L

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## ON THE COVER



The century-old maize *salmon silks* (*sm*) mutation produces salmon-colored silks, as shown in this image. This mutation is linked to the absence of maysin, a C-glycosyl flavone that confers natural resistance to the corn earworm (*Helicoverpa zea*), one of the most damaging pests of maize. Previous genetic analyses predicted the transcription factor Pericarp Color1 (P1) to be epistatic to *sm*, and subsequent studies identified two loci, *sm1* and *sm2*, that confer the *sm* phenotype. Casas et al. (pages 1297–1309) describe the molecular identification of the *Sm1* and *Sm2* gene products. *Sm1* encodes a UDP-rhamnose synthase and *Sm2* encodes a rhamnosyl transferase, both direct targets of P1. This work completes the molecular characterization of the maysin biosynthetic pathway, providing powerful tools for engineering tolerance to corn earworm in maize and other plants.

## IN BRIEF

- Ticket to Ride: tRNA-Related Sequences and Systemic Movement of mRNAs** [OPEN](#) 1231  
Jennifer Mach
- Thinking Outside the Plant: Exploring Phloem Development Using VISUAL** [OPEN](#) 1233  
Jennifer Lockhart
- What the Nucellus Can Tell Us** [OPEN](#) 1234  
Gregory Bertoni
- Last Exit to Differentiation: Histone Variants as Signposts** [OPEN](#) 1235  
Nancy R. Hofmann
- Battening Down the Hatches: A Role for CASEIN KINASE1-LIKE PROTEIN2 in Stomatal Closure** [OPEN](#) 1236  
Kathleen L. Farquharson

## BREAKTHROUGH REPORT

- tRNA-Related Sequences Trigger Systemic mRNA Transport in Plants** [OPEN](#) 1237  
Wenna Zhang, Christoph J. Thieme, Gregor Kollwig, Federico Apelt, Lei Yang, Nikola Winter, Nadine Andresen, Dirk Walther, and Friedrich Kragler

## RESEARCH ARTICLES

- Vascular Cell Induction Culture System Using Arabidopsis Leaves (VISUAL) Reveals the Sequential Differentiation of Sieve Element-Like Cells** 1250  
Yuki Kondo, Alif Meem Nurani, Chieko Saito, Yasunori Ichihashi, Masato Saito, Kyoko Yamazaki, Nobutaka Mitsuda, Masaru Ohme-Takagi, and Hiroo Fukuda
- MS5 Mediates Early Meiotic Progression and Its Natural Variants May Have Applications for Hybrid Production in *Brassica napus*** 1263  
Qiang Xin, Yi Shen, Xi Li, Wei Lu, Xiang Wang, Xue Han, Faming Dong, Lili Wan, Guangsheng Yang, Dengfeng Hong, and Zhukuan Cheng

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**The Proteasome Stress Regulon Is Controlled by a Pair of NAC Transcription Factors in Arabidopsis**

1279

Nicholas P. Gladman, Richard S. Marshall, Kwang-Hee Lee, and Richard D. Vierstra

**Identification and Characterization of Maize *salmon silks* Genes Involved in Insecticidal Maysin Biosynthesis**

1297

María Isabel Casas, María Lorena Falcone-Ferreira, Nan Jiang, María Katherine Mejía-Guerra, Eduardo Rodríguez, Tyler Wilson, Jacob Engelmeier, Paula Casati, and Erich Grotewold

**Genetic Analysis of *Physcomitrella patens* Identifies *ABSCISIC ACID NON-RESPONSIVE*, a Regulator of ABA Responses Unique to Basal Land Plants and Required for Desiccation Tolerance**

1310

Sean R. Stevenson, Yasuko Kamisugi, Chi H. Trinh, Jeremy Schmutz, Jerry W. Jenkins, Jane Grimwood, Wellington Muchero, Gerald A. Tuskan, Stefan A. Rensing, Daniel Lang, Ralf Reski, Michael Melkonian, Carl J. Rothfels, Fay-Wei Li, Anders Larsson, Gane K.-S. Wong, Thomas A. Edwards, and Andrew C. Cuming

**An Innate Immunity Pathway in the Moss *Physcomitrella patens***

1328

Simon Bressendorff, Raquel Azevedo, Chandra Shekar Kenchappa, Inés Ponce de León, Jakob V. Olsen, Magnus Wohlfahrt Rasmussen, Gitte Erbs, Mari-Anne Newman, Morten Petersen, and John Mundy

**Endosperm and Nucellus Develop Antagonistically in Arabidopsis Seeds**

1343

Wenjia Xu, Elisa Fiume, Olivier Coen, Christine Pechoux, Loïc Lepiniec, and Enrico Magnani

**Histone H3 Dynamics Reveal Domains with Distinct Proliferation Potential in the Arabidopsis Root**

1361

Sofía Otero, Bénédicte Desvoves, Ramón Peiró, and Crisanto Gutierrez

**Flavonols Mediate Root Phototropism and Growth through Regulation of Proliferation-to-Differentiation Transition**

1372

Javier Silva-Navas, Miguel A. Moreno-Risueno, Concepción Manzano, Bárbara Téllez-Robledo, Sara Navarro-Neila, Víctor Carrasco, Stephan Pollmann, F. Javier Gallego, and Juan C. del Pozo

**PIF1-Interacting Transcription Factors and Their Binding Sequence Elements Determine the *in Vivo* Targeting Sites of PIF1**

1388

Junghyun Kim, Hyojin Kang, Jeongmoo Park, Woohyun Kim, Janghyun Yoo, Nayoung Lee, Jaewook Kim, Tae-young Yoon, and Giltsu Choi

**Phytochrome Signaling Is Mediated by PHYTOCHROME INTERACTING FACTOR in the Liverwort *Marchantia polymorpha***

1406

Keisuke Inoue, Ryuichi Nishihama, Hideo Kataoka, Masashi Hosaka, Ryo Manabe, Mika Nomoto, Yasuomi Tada, Kimitsune Ishizaki, and Takayuki Kohchi

**CASEIN KINASE1-LIKE PROTEIN2 Regulates Actin Filament Stability and Stomatal Closure via Phosphorylation of Actin Depolymerizing Factor**

1422

Shuangshuang Zhao, Yuxiang Jiang, Yang Zhao, Shanjin Huang, Ming Yuan, Yanxiu Zhao, and Yan Guo

**A Metabolic Gene Cluster in the Wheat *W1* and the Barley *Cer-cqu* Loci Determines  $\beta$ -Diketone Biosynthesis and Glaucousness**

1440

Shelly Hen-Avivi, Orna Savin, Radu C. Racovita, Wing-Sham Lee, Nikolai M. Adamski, Sergey Malitsky, Efrat Almekias-Siegl, Matan Levy, Sonia Vautrin, Hélène Bergès, Gilgi Friedlander, Elena Kartvelishvily, Gil Ben-Zvi, Noam Alkan, Cristobal Uauy, Kostya Kanyuka, Reinhard Jetter, Assaf Distelfeld, and Asaph Aharoni

**The Metabolite Pathway between Bundle Sheath and Mesophyll: Quantification of Plasmodesmata in Leaves of *C<sub>3</sub>* and *C<sub>4</sub>* Monocots**

1461

Florence R. Danila, William Paul Quick, Rosemary G. White, Robert T. Furbank, and Susanne von Caemmerer

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**The Starch Granule-Associated Protein EARLY STARVATION1 Is Required for the Control of Starch Degradation in *Arabidopsis thaliana* Leaves** <sup>OPEN</sup> 1472

Doreen Feike, David Seung, Alexander Graf, Sylvain Bischof, Tamaryn Ellick, Mario Coiro, Sebastian Soyk, Simona Eicke, Tabea Mettler-Altmann, Kuan Jen Lu, Martin Trick, Samuel C. Zeeman, and Alison M. Smith

**ENDOSOMAL RAB EFFECTOR WITH PX-DOMAIN, an Interacting Partner of RAB5 GTPases, Regulates Membrane Trafficking to Protein Storage Vacuoles in *Arabidopsis*** 1490

Hajime Tajima Sakurai, Takeshi Inoue, Akihiko Nakano, and Takashi Ueda

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