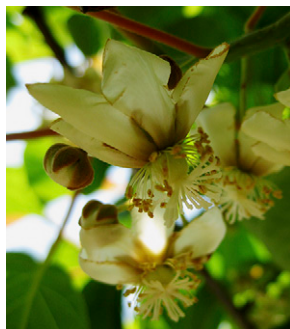


# THE PLANT CELL

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## ON THE COVER



Kiwifruit (*Actinidia* spp) is a dioecious plant, where male and female flowers set on distinct individuals, with an XY (heterogametic male) sex-determining system. However, the genetic sex determinants have remained unidentified until now. Akagi et al. (pages 780–795) identified a candidate gene encoding a type-C cytokinin response regulator, named *Shy Girl*, located on the Y chromosome. It is specifically expressed in female organs and suppresses their development, resulting in male flowers. An *Actinidia*-specific duplication event gave rise to two copies of this kind of gene, which then evolved independently and one became *Shy Girl* by developing a new expression pattern to act as a sex determinant. This work provides an example of how a lineage-specific duplication event can provide a template for the evolution of new functions that affect key biological processes, such as sex determination. The cover image shows female kiwifruit flowers.

## IN BRIEF

- Shy Girl* Gives Kiwifruit Male Flowers<sup>[OPEN]</sup>** 739
- Developmental Timing Is Everything: TZP and Phytochrome Signaling<sup>[OPEN]</sup>** 741
- So Inclined: Phosphate Status and Leaf Angle in Rice<sup>[OPEN]</sup>** 743

## REVIEW

- Chloroplast Translation: Structural and Functional Organization, Operational Control, and Regulation<sup>[OPEN]</sup>** 745  
Reimo Zoschke and Ralph Bock

## PERSPECTIVE

- Barbara McClintock's Unsolved Chromosomal Mysteries: Parallels to Common Rearrangements and Karyotype Evolution** 771  
James A. Birchler and Fangpu Han

## RESEARCH ARTICLES

- A Y-Encoded Suppressor of Feminization Arose via Lineage-Specific Duplication of a Cytokinin Response Regulator in Kiwifruit<sup>[OPEN]</sup>** 780  
Takashi Akagi, Isabelle M. Henry, Haruka Ohtani, Takuya Morimoto, Kenji Beppu, Ikuo Kataoka, and Ryutaro Tao
- Wheat miR9678 Affects Seed Germination by Generating Phased siRNAs and Modulating Abscisic Acid/Gibberellin Signaling<sup>[OPEN]</sup>** 796  
Guanghui Guo, Xinye Liu, Fenglong Sun, Jie Cao, Na Huo, Bala Wuda, Mingming Xin, Zhaorong Hu, Jinkun Du, Rui Xia, Vincenzo Rossi, Huiru Peng, Zhongfu Ni, Qixin Sun, and Yingyin Yao
- EAR1 Negatively Regulates ABA Signaling by Enhancing 2C Protein Phosphatase Activity<sup>[OPEN]</sup>** 815  
Kai Wang, Junna He, Yang Zhao, Ting Wu, Xiaofeng Zhou, Yanglin Ding, Lingyao Kong, Xiaoji Wang, Yu Wang, Jigang Li, Chun-Peng Song, Baoshan Wang, Shuhua Yang, Jian-Kang Zhu, and Zhizhong Gong

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**TANDEM ZINC-FINGER/PLUS3 Is a Key Component of Phytochrome A Signaling** 835

Shaoman Zhang, Cong Li, Yangyang Zhou, Xiaoji Wang, Hong Li, Ziyi Feng, Haodong Chen, Genji Qin, Dan Jin, William Terzaghi, Hongya Gu, Li-Jia Qu, Dingming Kang, Xing Wang Deng, and Jigang Li

**An SPX-RLI1 Module Regulates Leaf Inclination in Response to Phosphate Availability in Rice<sup>[OPEN]</sup>** 853

Wenyuan Ruan, Meina Guo, Lei Xu, Xueqing Wang, Hongyu Zhao, Junmin Wang, and Keke Yi

**GRAIN SIZE AND NUMBER1 Negatively Regulates the OsMCKK10-OsMCK4-OsMCK6 Cascade to Coordinate the Trade-off between Grain Number per Panicle and Grain Size in Rice** 871

Tao Guo, Ke Chen, Nai-Qian Dong, Chuan-Lin Shi, Wang-Wei Ye, Ji-Ping Gao, Jun-Xiang Shan, and Hong-Xuan Lin

**OsALMT7 Maintains Panicle Size and Grain Yield in Rice by Mediating Malate Transport** 889

Yueqin Heng, Chuanyin Wu, Yu Long, Sheng Luo, Jin Ma, Jun Chen, Jiafan Liu, Huan Zhang, Yulong Ren, Min Wang, Junjie Tan, Shanshan Zhu, Jiulin Wang, Cailin Lei, Xin Zhang, Xiuping Guo, Haiyang Wang, Zhijun Cheng, and Jianmin Wan

**Targeted Recruitment of the Basal Transcriptional Machinery by LNK Clock Components Controls the Circadian Rhythms of Nascent RNAs in Arabidopsis** 907

Yuan Ma, Sergio Gil, Klaus D. Grasser, and Paloma Mas

**Repression of Nitrogen Starvation Responses by Members of the Arabidopsis GARP-Type Transcription Factor NIGT1/HRS1 Subfamily<sup>[OPEN]</sup>** 925

Takatoshi Kiba, Jun Inaba, Toru Kudo, Nanae Ueda, Mineko Konishi, Nobutaka Mitsuda, Yuko Takiguchi, Youichi Kondou, Takeshi Yoshizumi, Masaru Ohme-Takagi, Minami Matsui, Kentaro Yano, Shuichi Yanagisawa, and Hitoshi Sakakibara

**CORRECTION<sup>[OPEN]</sup>**

Cañas, R.A., et al. (2017). Exploiting the genetic diversity of maize using a combined metabolomic, enzyme activity profiling, and metabolic modeling approach to link leaf physiology to kernel yield. *Plant Cell* 29: 919–943. 946

<sup>[OPEN]</sup>Articles can be viewed without a subscription.

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