IN BRIEF

Metabolic Crosstalk: Interactions between the Phenylpropanoid and Glucosinolate Pathways in Arabidopsis

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LARGE-SCALE BIOLOGY ARTICLE

Inference of the Arabidopsis Lateral Root Gene Regulatory Network Suggests a Bifurcation Mechanism That Defines Primordia Flanking and Central Zones

Julien Lavenus, Tatsuaki Goh, Soazig Guyomarc’h, Kristine Hill, Mikael Lucas, Ute Voß, Kim Kenobi, Michael H. Wilson, Etienne Farcot, Gretchen Hagen, Thomas J. Guilfoyle, Hidehiro Fukaki, Laurent Laplaze, and Malcolm J. Bennett

Autophagic Recycling Plays a Central Role in Maize Nitrogen Remobilization

Faqiang Li, Taijoon Chung, Janice G. Pennington, Maria L. Federico, Heidi F. Kaeppler, Shawn M. Kaeppler, Marisa S. Otegui, and Richard D. Vierstra

RESEARCH ARTICLES

HEMERA Couples the Proteolysis and Transcriptional Activity of PHYTOCHROME INTERACTING FACTORS in Arabidopsis Photomorphogenesis

Yongjian Qiu, Meina Li, Elise K. Pasoreck, Lingyun Long, Yiting Shi, Rafaelo M. Galvão, Conrad L. Chou, He Wang, Amanda Y. Sun, YiYin C. Zhang, Anna Jiang, and Meng Chen

Regulation of Histone Methylation and Reprogramming of Gene Expression in the Rice Inflorescence Meristem

Xiaoyun Liu, Shaoli Zhou, Wentao Wang, Yiran Ye, Yu Zhao, Qiutao Xu, Chao Zhou, Feng Tan, Saifeng Cheng, and Dao-Xiu Zhou

Phospholipids are highly conserved and essential components of biological membranes, but the biosynthetic pathway of major phospholipids in plants remains elusive. Lin et al. report on the choline/ethanolamine kinase (CEK) family, which catalyzes initial steps of phospholipid biosynthesis. Among the four CEKs in Arabidopsis, CEK4 was found to be essential for phospholipid biosynthesis and embryo development and may be the plasma membrane-localized isoform of the choline/ethanolamine kinase family for the rate-limiting step of phosphatidylcholine biosynthesis and embryo development. The cover shows a mature embryo of Arabidopsis expressing fluorescent-tagged CEK4.
Arabidopsis CALCIUM-DEPENDENT PROTEIN KINASE8 and CATALASE3 Function in Abscisic Acid-Mediated Signaling and H₂O₂ Homeostasis in Stomatal Guard Cells under Drought Stress

Jun-Jie Zou, Xi-Dong Li, Disna Ratnasekera, Cun Wang, Wen-Xin Liu, Lian-Fen Song, Wen-Zheng Zhang, and Wei-Hua Wu

The Control of Arabidopsis thaliana Growth by Cell Proliferation and Endoreplication Requires the F-Box Protein FBL17

Sandra Noir, Katia Marrocco, Kindi Nishimura, Alexis Thomann, Andi Gusti, Marta Bitrian, Arp Schnittger, and Pascal Genschik

Structures, Functions, and Interactions of ClpT1 and ClpT2 in the Clp Protease System of Arabidopsis Chloroplasts

Jitae Kim, Matthew S. Kimber, Kenji Nishimura, Giulia Friso, Lance Schultz, Lalit Ponnala, and Klaas J. van Wijk

The Choline/Ethanolamine Kinase Family in Arabidopsis: Essential Role of CEK4 in Phospholipid Biosynthesis and Embryo Development

Ying-Chen Lin, Yu-chi Liu, and Yuki Nakamura

Role of Aminoalcoholphosphotransferases 1 and 2 in Phospholipid Homeostasis in Arabidopsis

Yu Liu, Geliang Wang, and Xuemin Wang

Indole Glucosinolate Biosynthesis Limits Phenylpropanoid Accumulation in Arabidopsis thaliana

Jeong Im Kim, Whitney L. Dolan, Nickolas A. Anderson, and Clint Chapple

Two N-Terminal Acetyltransferases Antagonistically Regulate the Stability of a Nod-Like Receptor in Arabidopsis

Fang Xu, Yan Huang, Lin Li, Patrick Gannon, Eric Linster, Monika Huber, Paul Kapos, Willy Bienvenut, Bogdan Polevoda, Thierry Meinnel, Rüdiger Hell, Carmela Giglione, Yuelin Zhang, Markus Wirtz, She Chen, and Xin Li