ON THE COVER

Land plants synthesize a family of flavonoid metabolites that provide pigmentation in flowers, fruits, and seeds to attract pollinators and seed dispersers. The cover image illustrates the accumulation of anthocyanin, the major flavonoid pigment, in the blooming flowers and developing siliques of Arabidopsis species. Zhang et al. (pages 1157–1174) discovered a crucial proteolytic regulator, a Kelch domain-containing F-box (KFB) protein, in the model plant Arabidopsis, which specifically interacts with chalcone synthase in the flavonoid biosynthetic pathway and mediates its stability in response to the development cues and environmental stimuli, thereby coordinately controlling flavonoid production. This work deepens our mechanistic understanding of the molecular regulation of flavonoid pigment synthesis and provides us with a molecular tool for engineering flavonoid accumulation in plants. Photo by Roger Stoutenburgh.

IN BRIEF

Chasing Scattered Genes: Identifying Specialized Metabolite Pathway Genes through Global Coexpression Analysis
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The Long-Noncoding RNA ELENA1 Functions in Plant Immunity
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Division of Labor during Apical Hook Formation
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A Global Coexpression Network Approach for Connecting Genes to Specialized Metabolic Pathways in Plants
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Multi-Omics of Tomato Glandular Trichomes Reveals Distinct Features of Central Carbon Metabolism Supporting High Productivity of Specialized Metabolites
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RESEARCH ARTICLES

ELF18-INDUCED LONG-NONCODING RNA Associates with Mediator to Enhance Expression of Innate Immune Response Genes in Arabidopsis

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Ethylene Regulates Differential Growth via BIG ARF-GEF-Dependent Post-Golgi Secretory Trafficking in Arabidopsis

Kristoffer Jonsson, Johanna Boutte, Rajesh Kumar Singh, Delphine Gendre, and Rishikesh P. Bhalerao

Ethylene-Inhibited Jasmonic Acid Biosynthesis Promotes Mesocotyl/Coleoptile Elongation of Etiolated Rice Seedlings

Qiong Xiong, Biao Ma, Xiang Lu, Yi-Hua Huang, Si-Jie He, Chao Yang, Cui-Cui Yin, He Zhao, Yang Zhou, Wan-Ke Zhang, Wen-Sheng Wang, Zhi-Kang Li, Shou-Yi Chen, and Jin-Song Zhang

A Two-Step Model for de Novo Activation of WUSCHEL during Plant Shoot Regeneration

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Ethylene-Inhibited Jasmonic Acid Biosynthesis Promotes Mesocotyl/Coleoptile Elongation of Etiolated Rice Seedlings

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A Proteolytic Regulator Controlling Chalcone Synthase Stability and Flavonoid Biosynthesis in Arabidopsis

Xuebin Zhang, Carolina Abraham, Thomas A. Colquhoun, and Chang-Jun Liu

CORRECTION


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