The plastid-localized methyerythritol-phosphate (MEP) pathway synthesizes the isoprenoid precursors of essential photosynthesis-related compounds and hormones. Flores-Pérez et al. (pages 1303–1315) report on the Arabidopsis mutant nif1 (resistant to inhibition by FSM), which has a lesion in a GTPase homolog required for ribosome assembly and plastid protein synthesis. As shown on the cover, the nif1 mutant grows in the presence of the MEP pathway inhibitor fosmidomycin, which causes a developmental block and severe albino phenotype in the wild type. The authors show that the mutant has increased levels of the first two enzymes of the MEP pathway, resulting from their decreased degradation in mutant plastids, and that the stromal Clp protease complex is involved in this process. The results suggest that plastidial isoprenoid biosynthesis is finely adjusted by regulating the degradation of MEP pathway enzymes.
SOMNUS, a CCCH-Type Zinc Finger Protein in Arabidopsis, Negatively Regulates Light-Dependent Seed Germination Downstream of PIL5

Dong Hwan Kim, Shinjiro Yamaguchi, Soohwan Lim, Eunkyoo Oh, Jeongmu Park, Atsushi Hanada, Yuji Kamiya, and Giltsu Choi

MTA Is an Arabidopsis Messenger RNA Adenosine Methylase and Interacts with a Homolog of a Sex-Specific Splicing Factor

Silin Zhong, Hongying Li, Zsuzsanna Bodi, James Button, Laurent Vespa, Michel Herzog, and Rupert G. Fray

Identification of a Xylogalacturonan Xylosyltransferase Involved in Pectin Biosynthesis in Arabidopsis

Jacob Krüger Jensen, Susanne Oxenbøll Sørensen, Jesper Harholt, Naomi Geshi, Yumiko Sakuragi, Isabel Møller, Joris Zandleven, Adriana J. Bernal, Niels Bjerg Jensen, Charlotte Sørensen, Markus Pauly, Gerrit Eldman, William G.T. Willats, and Henrik Vibe Scheller

A Mutant Impaired in the Production of Plastome-Encoded Proteins Uncovers a Mechanism for the Homeostasis of Isoprenoid Biosynthetic Enzymes in Arabidopsis Plasts

Ursula Flores-Pérez, Susana Sauret-Güeto, Elisabet Gas, Paul Jarvis, and Manuel Rodriguez-Concepción

Mutation of a Rice Gene Encoding a Phenylalanine Biosynthetic Enzyme Results in Accumulation of Phenylalanine and Tryptophan

Tetsuya Yamada, Fumio Matsuda, Koji Kasai, Shuichi Fukuoka, Keisuke Kitamura, Yuzuru Tozawa, Hisashi Miyagawa, and Kyo Wakasa

An Exocyst Complex Functions in Plant Cell Growth in Arabidopsis and Tobacco

Michal Hála, Rex Cole, Lukáš Synek, Edita Drdová, Tamara Pečenková, Alfred Nordheim, Tobias Lamkemeyer, Johannes Madlung, Frank Hochholdinger, John E. Fowler, and Viktor Zársky

Dual Fatty Acyl Modification Determines the Localization and Plasma Membrane Targeting of CBL/CIPK Ca2+ Signaling Complexes in Arabidopsis

Oliver Batistič, Nadav Sorek, Stefanie Schütlke, Shaul Yalovsky, and Jörg Kudla

Dynamics of Arabidopsis Dynamin-Related Protein 1C and a Clathrin Light Chain at the Plasma Membrane

Catherine A. Konopka, Steven K. Backues, and Sebastian Y. Bednarek

A Transporter Regulating Silicon Distribution in Rice Shoots

Naoki Yamaji, Namiki Mitatni, and Jian Feng Ma

MAPK Signaling Regulates Nitric Oxide and NADPH Oxidase-Dependent Oxidative Bursts in Nicotiana benthamiana

Shuta Asai, Kohji Ohta, and Hiroyumi Yoshioka
Prepenetration Apparatus Assembly Precedes and Predicts the Colonization Patterns of Arbuscular Mycorrhizal Fungi within the Root Cortex of Both *Medicago truncatula* and *Daucus carota*.

Andrea Genre, Mireille Chabaud, Antonella Faccio, David G. Barker, and Paola Bonfante

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