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ON THE COVER

Photosynthetic light harvesting in plants is regulated by phosphorylation-driven state transitions, involving the functional redistribution of the major light-harvesting complex II (LHCII) to balance the relative excitation of PSI and PSII. Pietrzykowska et al. (pages 3646–3660) show that despite their nearly identical amino acid composition, the functional roles of Lhcb1 and Lhcb2 are different but complementary. Results show that both Lhcb1 and Lhcb2 are required for state transitions, but neither alone is sufficient. Lhcb1 was found to be important for grana stacking and membrane reorganization during state transitions, while Lhcb2 has more of a role in mediating the association of LHCII to PSI. The cover image shows electron micrographs of *Arabidopsis* wild type (top) and an *lhcb1* mutant (bottom; generated using artificial microRNA) in state 1 (left) or state 2 (right).

IN BRIEF

LARGE-SCALE BIOLOGY ARTICLES

RESEARCH ARTICLES

CORRECTION

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