Plant Physiology®

July 2009 • Vol. 150 • No. 3

The electronic form of this issue, available as of July 10, 2009, at www.plantphysiol.org, is considered the journal of record.

On the Cover: A photo of a *Physcomitrella* green gametophyte branch with an orange sporophyte growing on top. Insert is a photo of a gametophyte cell after transient expression of a DNA construct encoding BiP-RFP (endoplasmic reticulum [ER] marker, shown in red) and oleosin-GFP (marker of oil bodies and synthesized on extensive regions of the ER, shown in green). All the spherical oil bodies (green) are connected to the ER network (orange-yellow) in the cell. In this issue, Huang et al. (pp. 1192–1203) establish the use of *Physcomitrella* as a transient expression system to study the cell biology of lipid synthesis and storage. No other plant transient expression system containing storage oil bodies has been reported previously. The moss is the most primitive plant containing higher-plant-like storage oil bodies. Its single-cell-layer gametophyte can be easily transformed and observed with confocal microscopy and induced to mutate via homologous recombination.

Continued on next page

Continued from preceding page

BIOENERGETICS AND PHOTOSYNTHESIS

CELL BIOLOGY AND SIGNAL TRANSDUCTION

DEVELOPMENT AND HORMONE ACTION

Continued on next page

Continued from preceding page

Continued on next page

Continued from preceding page

CORRECTIONS

[C] Some figures in this article are displayed in color online but in black and white in the print edition.
[W] Indicates Web-only data.
[OA] Open Access articles can be viewed online without a subscription.