ON THE COVER

Reyes et al. (pages 769–784) use a combination of molecular approaches, in vivo imaging of fluorescent proteins, and structural analysis by electron tomography to study storage proteins, such as zeins, in maize seed tissue. They investigate patterns of gene transcription and protein transport in aleurone cells and describe an atypical autophagic mechanism for the delivery of these proteins to the vacuole that may be common to cereals. The cover shows an electron tomographic reconstruction of a developing maize aleurone cell containing vacuoles with large aggregates of storage proteins (red) and intravacuolar membranes (green); mitochondria (gold), plastids (green), lipid bodies (blue), and ribosomes (gray) are abundant in the cytoplasm.

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