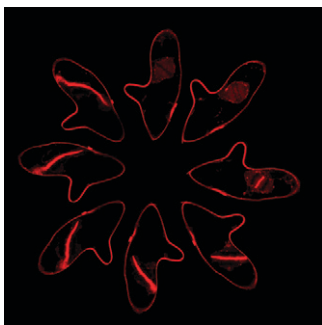


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### ON THE COVER



TPLATE is a potential cytokinesis protein that is targeted to the cell plate. Van Damme et al. (pages 3502–3518) show that in *Arabidopsis*, a T-DNA insertion in *TPLATE* leads to the production of shriveled pollen that is unable to germinate. Vesicular compartmentalization of the mature pollen is dramatically altered, and large deposits of callose accumulate near the intine cell wall layer. Localization with GFP-fused TPLATE showed that the protein accumulates at the cell plate and is temporally targeted to a narrow zone at the cell cortex where the cell plate connects to the mother wall. The authors conclude that TPLATE functions in vesicle trafficking events required for site-specific cell wall modifications taking place during pollen germination and the anchoring of the cell plate to the mother wall at the correct cortical position. The cover image shows different mitotic steps of a FM4-64 prestained tobacco BY-2 cell expressing a constitutive RNAi construct of *TPLATE*. The developing cell plate fails to correctly attach to the mother wall.

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



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