

T H E  
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**ON THE COVER**



Very long chain fatty acids (VLCFAs) are essential for many aspects of plant development. Roudier et al. (pages 364–375) show that the immunophilin *PASTICCINO1* (*PAS1*) is required for VLCFA synthesis in the endoplasmic reticulum. Impairment of *PAS1* function results in defective lateral root formation associated with local alteration of polar auxin distribution. VLCFA reduction causes mistargeting of the auxin efflux carrier PIN FORMED 1 (*PIN1*) but not the auxin influx carrier *AUX1*. The cover displays the expression of *pAUX1:AUX1-YFP* in an *Arabidopsis* wild-type background during lateral root outgrowth (green) from the primary root (red). This work shows that VLCFAs are essential for polar auxin transport and tissue patterning during plant development.

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