

T H E
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ON THE COVER



The fleshy expansion and ripening of fruits make them attractive to seed-dispersing organisms, including humans. Using RNA interference gene repression and ectopic over-expression, Vrebalov et al. (pages 3041–3062) show that *TAGL1*, the tomato ortholog of *Arabidopsis SHATTER-PROOF (SHP)* MADS-box genes, is necessary for both ripening and fleshy expansion of tomato. *SHP1* and *SHP2* are necessary for silique shattering in *Arabidopsis*. This indicates broad functional conservation of these genes (a role in seed dispersal) among very different fruit types, but evolution of distinct molecular functions for these MADS-box orthologs in different species, namely fruit expansion and ripening in tomato and pod shatter in *Arabidopsis* (photo by Ryan McQuinn).

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