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What makes fruit pear-shaped?

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Fruit-crop domestication has led to a flourishing of fruit shape variation, the molecular basis of which remains unexplained. In the Early Edition of the [Proceedings of the National Academy of Sciences](#), Liu *et al.* describe characterization of the **OVATE** gene previously associated with a major quantitative trait locus (QTL) controlling [pear-shaped fruit development](#) in tomatoes. They cloned the *OVATE* gene and identified a premature stop codon associated with the *ovate* pear-shaped phenotype. Overexpression of *OVATE* affected plant growth, fruit shape and floral organ development. *OVATE* encodes a novel protein with a nuclear localization signal and a 70-residue carboxyl-terminal domain that is conserved in tomato, *Arabidopsis* and rice. The authors suggest that *OVATE* might represent a new class of genes that regulate plant growth and fruit shape.

References

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2. Exploitation of Arabidopsis-tomato synteny to construct a high-resolution map of the ovate-containing region in tomato chromosome 2
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