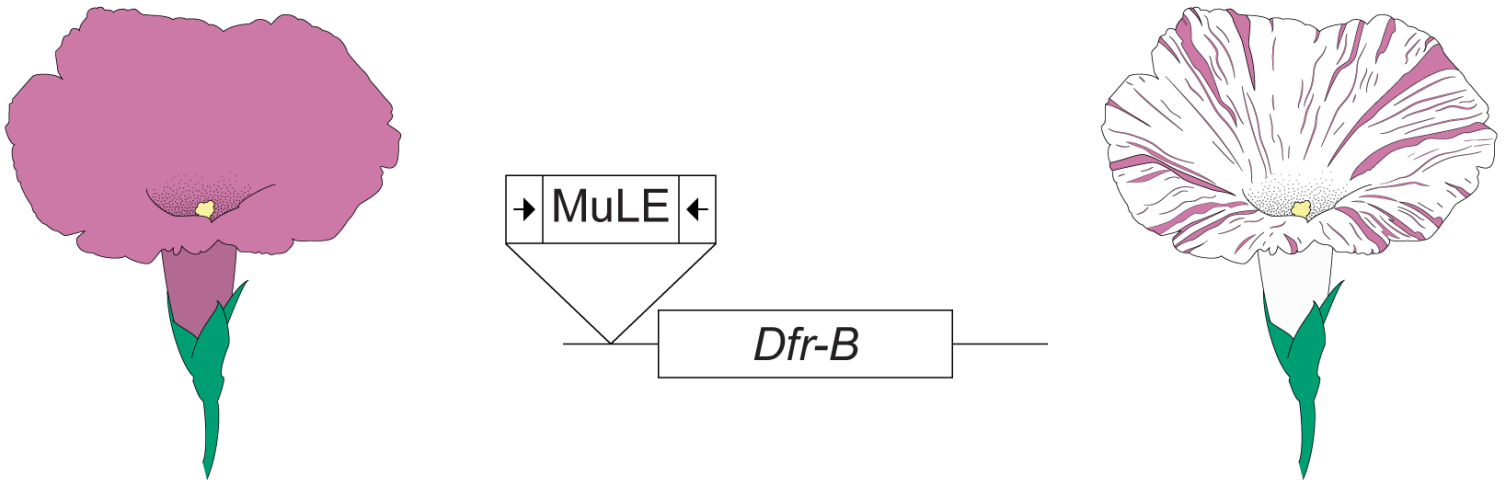
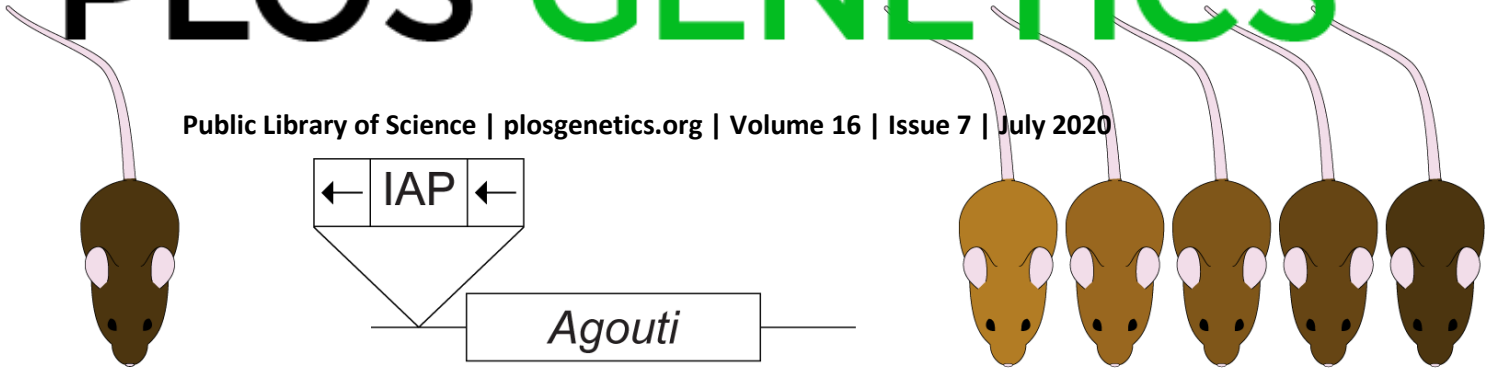


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**Double-edged sword: The evolutionary consequences of the epigenetic silencing of transposable elements**

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## Phenotypic variation hints the inadvertent consequences of the epigenetic silencing of transposable elements.

Animals and plants can epigenetically silence a widespread genomic parasite, transposable element (TEs), to counteract TE's selfish increase. However, studies on the genetic basis of a wide array of phenotypic traits suggested that the supposedly beneficial epigenetic silencing of TEs could inadvertently influence nearby host genes' functions. In these examples, the presence of a TE insertion, irrespective of TE type (IAP, MuLE, LINE, or GynohAT), is associated with nearby genes' silencing, contributing to variation in mouse coat color, color streaks in morning glory, bonsai-like Arabidopsis, and female flower of muskmelon.

Image credit: Ramin Rahni.

