

Supplemental References Start Here:

24. C. Ortiz-Ramirez, E. D. Arevalo, X. Xu, D. P. Jackson, K. D. Birnbaum, An Efficient Cell Sorting Protocol for Maize Protoplasts. *Curr Protoc Plant Biol* **3**, e20072 (2018).
25. K. M. Crawford, P. C. Zambryski, Subcellular localization determines the availability of non-targeted proteins to plasmodesmatal transport. *Curr Biol* **10**, 1032-1040 (2000).
26. Y. Lei *et al.*, CRISPR-P: a web tool for synthetic single-guide RNA design of CRISPR-system in plants. *Mol Plant* **7**, 1494-1496 (2014).
27. S. N. Char *et al.*, An Agrobacterium-delivered CRISPR/Cas9 system for high-frequency targeted mutagenesis in maize. *Plant Biotechnol J* **15**, 257-268 (2017).
28. T. P. Brutnell *et al.*, *Setaria viridis*: a model for C4 photosynthesis. *Plant Cell* **22**, 2537-2544 (2010).
29. D. Jackson, B. Veit, S. Hake, Expression of maize KNOTTED1 related homeobox genes in the shoot apical meristem predicts patterns of morphogenesis in the vegetative shoot. *Development* **120**, 404-413 (1994).
30. A. P. Marand, Z. Chen, A. Gallavotti, R. J. Schmitz, A cis-regulatory atlas in maize at single-cell resolution. *Cell* **184**, 3041-3055.e3021 (2021).