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Cover photo: Floret opening in many grass species allows for pollen dispersal and cross-pollination. The swelling of the lodicule is responsible for the opening of florets, but in barley, the closed floret habit (cleistogamy) is under the control of the gene cly1, which operates by inhibiting the development of the lodicule. Wang et al. (pp. 95–104) investigated a novel allele of cly1 in barley cv. “France 1” that somehow escapes inhibiting the development of the lodicule. A higher level of DNA methylation at promoter represses cly1 transcription. siRNA sequencing revealed methylation might be generated by ncRNAs. This cultivar can be manipulated by a pre-anthesis application of exogenous auxin 2,4-D to promote wide and prolonged opening of florets, a feature which may be of interest in the context of hybrid seed production of cleistogamous barleys. Image courtesy of Ning Wang and Takao Komatsuda.
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