ON THE COVER

The endosperm of flowering plants is a triploid nutritious seed tissue surrounding the embryo. Baroux et al. (pages 1782–1794) found an atypical chromatin organization in endosperm nuclei, which responds to imbalanced parental dosage. The main image shows a three-dimensional reconstruction of a young Arabidopsis seed stained in whole mount for DNA. The endosperm nuclei (yellow) fill the seed inside the sporophytic seed coat (green), while the zygote has just divided once (two nuclei; orange). The insets from left to right show various aspects of endosperm nuclei: (1) they appear very large compared with sporophytic nuclei and are surrounded by mitochondria, (2) their chromatin shows atypical interspersed heterochromatin foci, (3) their euchromatin is enriched in the heterochromatic H3K9me1 mark (green), and (4) their chromosome territories are expanded (red). The image was created with Imaris 5.7 (Bitplane).

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