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Cover photograph (Copyright © 2014, American Society for Microbiology. All rights reserved.) Conditional *Hinfp*-null mouse embryonic fibroblast (MEF) were stained with alpha-tubulin (red). The nucleus is with DAPI (4',6-diamidino-2-phenylindole; blue). MEFs were treated with adenovirus expressing Cre to remove *Hinfp* with enhanced green fluorescent protein (EGFP), a marker for live cell sorting. The EGFP-positive cells were grown in culture for 4 days. *Hinfp*-null MEFs have an altered cellular shape and larger nuclei, as well as an altered arrangement of satellite DNA inside their nuclei (light blue spots). (See related article on p. 2650.)