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Cover photograph (Copyright © 2014. American Society for Microbiology. All rights reserved.) A tooth sample from a postnatal day 14 epithelial-*Alk3* knockout mouse induced from embryonic day 14.5 was stained for epithelial marker keratin 14 (top) and mesenchymal marker vimentin (middle); a merged image is at the bottom. A few cells within the keratin 14-positive tooth crown epithelial layer express vimentin, and some of them also express keratin 14 at a relatively low level, suggesting the differentiation of these crown epithelial cells into the tooth root lineage and the presence of epithelial-mesenchymal transition. (See related article in December 2013, vol. 33, no. 23, p. 4732.)