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Pictured right to left are eight carrot (*Daucus carota* L.) plants and root cross-sections representing a range of phenotypes from wild to domesticated spanning over a thousand years of carrot evolution. The right-most plant is a white-rooted wild accession. This is followed by yellow and purple rooted landrace accessions that represent some of the first domesticated types; white, yellow, and orange rooted open pollinated accessions that are the direct ancestors of modern orange carrots; and two elite orange rooted processing and fresh market carrots. An association analysis that included more than 700 carrot accessions from around the world performed by Ellison *et al.* revealed that the *Or* gene, which has not been previously identified in carrot, is a candidate for the extraordinary level of carotenoid accumulation that characterizes this crop. This gene was likely important in the very early stages of carrot domestication and improvement. Image courtesy of Matthew Mirkes (University of Wisconsin-Madison, Madison, WI). See Ellison *et al.*, pp. 1479–1508.

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