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No horitzontal transfer

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The suggestion that the human genome sequence contains as many as 113 cases of horizontal gene transfer (HGT) from bacteria sparked much debate and speculation. In the June 21 Nature, Stanhope *et al.* present phylogenetic analysis that lead them to conclude that there was probably no direct HGT from bacteria to vertebrates (*Nature* 2001, **411:**940-944). They studied 28 examples of proposed HGT genes. Orthologs of some HGT candidates, such as several *Dictyostelium* genes, were found in non-vertebrate eukaryote EST databases. The authors suggest that a more accurate explanation is that vertebrates and bacteria share these loci through common ancestry, involving a succession of non-vertebrate eukaryote intermediates. They stress that phylogenetic analysis, rather than the ranking of results from database homology searches, should be a strict criterion for assessing genome evolution.

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