



**FIGURE 13.26.** Amino acid substitutions in  $\alpha$ -globin accumulate steadily with time. (B) The number of amino acid differences per site against time since divergence, based on sequences from eight vertebrate species, whose relationship is shown by the phylogenetic tree (A). Comparisons are between shark and the average of the other seven species (*top right closed circle*), carp and the other six, and so on down to human versus dog (*bottom left closed circle*). These values are corrected for multiple substitutions (Chapter 27 [online]). Estimates of time are from the fossil record.

13.26A,B, modified from Kimura M., *The Neutral Theory of Molecular Evolution*, Figs. 4.2, 4.4, © 1983 Cambridge University Press