



FIGURE 4.16. RNA structure. Structural motifs that can be formed by folding RNA molecules. (A) Stem-loops, hairpins, and other secondary structures form by base pairing between distant complementary segments of an RNA molecule. In stem-loops, the single-stranded loop (*blue*) between the base-paired helical stem (*red*) may be hundreds or even thousands of nucleotides long, whereas in hairpins, the short turn may contain as few as 6–8 nucleotides. (B) Interactions between the flexible loops may result in further folding to form tertiary structures such as the pseudoknot. This tertiary structure resembles a figure-eight knot, but the free ends do not pass through the loops, so no knot is actually formed.

4.16A,B, redrawn from Lodish H. et al., *Molecular Cell Biology*, Fig. 4.12, © W.H. Freeman