

**TABLE 4.4.** Ribozymes

| Ribozyme              | Description   |
|-----------------------|---|
| Self-splicing introns | Some introns splice themselves by an autocatalytic process. There is also growing evidence that the splicing pathway of GU-AG introns includes at least some steps that are catalyzed by snRNAs.  |
| Ribonuclease P        | This enzyme creates the 5' ends of bacterial tRNAs. It consists of an RNA subunit and a protein subunit, with the catalytic activity residing in the RNA.   |
| Ribosomal RNA         | The peptidyl transferase activity required for peptide bond formation during protein synthesis is associated with the 23S rRNA of the large subunit of the ribosome.  |
| Virus genomes         | Replication of the RNA genomes of some viruses involves self-catalyzed cleavage of chains of newly synthesized genomes linked head to tail. Examples are the plant viroids and virusoids and the animal hepatitis delta virus. These viruses form a diverse group with the self-cleaving activity specified by a variety of different base-paired structures, including a well-studied one that resembles a hammerhead. |
| Telomeres             | In some species, replication of DNA ends is catalyzed by an RNA subunit of its telomerases.   |

From Brown T.A. 2002. *Genomes*, 2nd ed., Table 10.4, BIOS Scientific Publishers Ltd., Oxford.  
snRNA, small nuclear RNA; tRNA, transfer RNA.