



FIGURE 7.1 Examples from the major classes of natural products.

origins, frequently based on an amino acid core; the unifying structural aspect remains the existence of a basic nitrogen function. Examples of well-known alkaloids that have been used in medicine are morphine (from the opium poppy, *Papaver somniferum*), and quinine (from *Chincona* species).

Closely related to alkaloids are the peptides, which are composed largely of amino acids, often with unusual structural modifications. These peptides are characteristically much smaller than proteins, generally less than 2000 Da in molecular weight, and are often not assembled on the ribosome.