

## OUR BODILY FRAME

pregnated ovum, by continuous subdivision. The general structure and combination of the tissues are the same in man as in the other vertebrates. Among these the mammals, the youngest and most highly developed class take precedence, in virtue of certain special features which were acquired late. Such are, for instance, the microscopic texture of the hair, of the glands of the skin, and of the breasts, and the corpuscles of the blood, which are quite peculiar to mammals, and different from those of the other vertebrates; man, even in these finest histological relations, is a *true mammal*.

The microscopic researches of Albert Kölliker and Franz Leydig (at Würzburg) not only enlarged our knowledge of the finer structure of man and the beasts in every direction, but they were especially important in the light of their connection with the evolution of the cell and the tissue; they confirmed the great theory of Carl Theodor Siebold (1845) that the lowest animals, the Infusoria and the Rhizopods, are unicellular organisms.

Our whole frame, both in its general plan and its detailed structure, presents the characteristic type of the vertebrates. This most important and most highly developed group in the animal world was first recognized in its natural unity in 1801 by the great Lamarck; he embraced under that title the four higher animal groups of Linné—mammals, birds, amphibia, and fishes. To these he opposed the two lower classes, insects and worms, as invertebrates. Cuvier (1812) established the unity of the vertebrate type on a firmer basis by his comparative anatomy. It is quite true that all the vertebrates, from the fish up to man, agree in every essential feature; they all have a firm inter-