entoderm of the mesenteries, excepting in the case of *Cirripathes propinqua*, where a single flat row of delicate fibres is present on each side of the primary mesenteries. This portion of the entodermal muscular system is, however, too rudimentary to admit of a distinction being made according to the direction of the fibres. The comparative development of the ectodermal as compared with the entodermal muscular fibres appears to indicate that the latter are of later origin. The mesenterial filaments are apparently outgrowths from the lower margin of the transverse mesenteries, and bear a cap of ectodermal cells at their free extremities. The reproductive organs are developed in connection with the transverse mesenteries only. The germinal cells are derived from the entoderm and may undergo differentiation within that layer, or may be enclosed in a mesoglœal capsule.

The Antipathinæ approach the Cerianthidæ more closely than the Hexactiniæ in structure, particularly in the following points :—

1. The arrangement of the mesenteries.
2. The relatively thin mesoglœa, which is entirely devoid of stellate connective-tissue cells.
3. The presence of an ectodermal muscular layer in the stomodæum and body-wall.
4. The rudimentary condition of the musculature of the mesenteries.