

first formulated by Gegenbaur, about the phylogenetic origin of the ventral nerve-cord and œsophageal ring of the Annelida out of ancestors with lateral cords, has obtained new support from the arrangement which was met with in the species just mentioned. And just as we have before tentatively discussed the question, in how far remnants of the lateral cords were retained in those descendants in which the median one had been raised to the dignity of a medulla spinalis (the Vertebrata), we might now consider whether any remnants of the median dorsal cord are retained in those descendants in which the lateral cords have differentiated into brain-lobes, œsophageal ring, and ventral cord (the Annelida). To this question I have no definite answer to offer, but I may call attention to the significant fact that the beautiful and exemplary investigations into the embryonic development of *Lopadorhynchus*, very recently published by Kleinenberg,¹ have demonstrated the existence in the larva of that Annelid, of a nerve-stem answering to the conditions here required. It is dorsomedially situated, it is anteriorly connected with the brain, or rather with a transverse nerve-tract (Kleinenberg's prototrochal nerve-ring), which in its turn is connected with the brain,² it appears to be connected close to the anus with the ventral cord (the fused lateral stems), and though appearing in early larval life, and having only a temporary existence, it is regarded by Kleinenberg as having considerable physiological importance. If the light in which I am inclined to look at it is not deceptive, its morphological significance also can hardly be overrated.

In closing this chapter of general considerations, we may once more bring before our minds the proposition with which it was opened. We have here and in the foregoing chapters adduced facts and arguments which appear to speak in its favour; we will once more rapidly enumerate the common characteristics of Nemertea and Cœlenterata, as well as those of Nemertea and Chordata.

The Cœlenterate characteristics that are also found in the Nemertea are the following:—

- a. The presence of nematocysts in the proboscidian epithelium.
- b. The elaborate nerve-plexus in the integument, and its histological features.
- c. The presence of epiblastic muscle-fibres separate from the general body-musculature.
- d. The presence and the chemical constitution of a sometimes very massive intermuscular jelly, by which the other internal organs are at the same time surrounded.
- e. The mode of development of the mesoblast (at least in *Lineus obscurus*), which is less specialised than in most other Invertebrates.
- f. The absence of any distinct enterocœle.

¹ *Zeitschr. f. wiss. Zool.*, Bd. xlv., Heft. i, ii., October 1886, p. 107; pl. vii. fig. 27a.

² For comparison with the Nemertea, cf. pl. xvi. fig. 1.