

and outside the four layers proper to the horn we have as constituents of the superficial band the following:—

5. A layer of pia mater and blood-vessels separating uncus from its band.

6. Internal molecular layer.

7. Internal granule layer.

8. Intragranular layer, containing pyramidal cells.

9. External granule layer.

10. External molecular layer.

The oblique direction taken by the superficial band of the uncus sufficiently explains many of the anomalous appearances presented by transverse sections some distance in front of the tip of the uncus. The fascia dentata is larger and more voluminous in apes, its free border smooth, and the peculiarities presented by its anterior end are described as they occur in macacus and cercopithecus. In cercopithecus the dentate fascia is disposed as in man, but numerous and closely-packed *globose* cells, like those of the peripheral ganglia take the place of the pyramidal elements in the intragranular stratum. In lower mammals the dentate fascia is more voluminous, especially at its posterior end; and in the dog and sheep its free border is smooth, and resembles closely a convolution. In these animals it terminates at the most anterior part of the gyrus hippocampi with a very gentle—scarcely perceptible—bend, over a poorly developed uncus; in fact, the superficial band may here be said to be absent. Tracing the developmental history of the region in man, and the higher mammalia, Giacomini concludes that the ending of the superficial band in the uncus is a characteristic feature of the brain of man and the higher quadrumana, corresponding to the great development in them of the pes hippocampi and its anterior bend or uncus.

Histologie de la Région psycho-motrice chez le Nouveau né. Par MAGALHÃES LEMOS. (*From an Inaugural Dissertation.*)

—The author describes the cortex of the paracentral lobule in the new-born infant as being 3 mm. in depth and as divisible macroscopically into seven layers alternately more or less translucent and microscopically constituted as follows:—

1st layer. An interstitial basis substance, containing cells small in size, but possessing relatively large nuclei.

2nd layer is a well-defined stratum of nucleated cells, larger than those of the preceding.

3rd layer. The cells of this layer are more scattered and less in

size than those of the second layer, whilst spherical nuclei, strongly coloured by carmine, are also found here.

4th layer. This layer is formed by a closer approximation of similar cells; the external limit of this layer is not so clearly defined.

6th layer. This layer is characterised by cells of pyramidal form, and of larger dimensions, amongst which are elements similar in structure and distribution to the the preceding layer.

7th layer. Presents no feature peculiar to itself.

It is to the existence and peculiar constitution of the large elements of the sixth layer that the author calls attention. These cells measure $\cdot 030\mu$ to $\cdot 040\mu$ long, by $\cdot 09\mu$ to $\cdot 015\mu$ in breadth; some scarcely attain this size, but others reach the dimensions of $\cdot 65\mu$ by $\cdot 020\mu$. Amongst these are scattered round cells having a diameter of $\cdot 020\mu$ to 030μ .¹ The pyramidal cells stain strongly with carmine, and enclose a nucleus ovoid or elliptic in form which in the larger cells may measure $\cdot 009\mu$ to 015μ . in long diameter. Of the branches given off by these cells, that from the apex is the most developed; it describes a centrifugal course, and may be followed to a distance of two to five times the length of the cell. Besides the other branches arising from the base of the pyramid, there is a prolongation from the centre of the cell which takes a centripetal direction (towards the medulla). The sixth layer is especially the site of these large pyramidal cells, although they may exceptionally be traced as smaller elements into the fifth or even the fourth layer. They are not disposed in regular series, as in the cornu Ammonis, but as an irregular interrupted formation, forming more or less circumscribed cell aggregations. An examination of the cortex of the internal aspect of the first frontal gyrus reveals the fact that although it is in direct continuation of the paracentral lobule the histological constitution marks it off as a region entirely distinct from the latter. The author briefly discusses the histological structure of the cornu Ammonis in the brain of the new-born infant, and declines to subscribe to the opinion of Prof. Betz, who has stated that "Ammon's horn (in the new-born infant) is already formed, possessing all its characteristic features, and that the cells are as distinctly seen as in the adult brain."

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¹ The dimensions are given as in the original memoir; yet the signification of μ being usually read as *micromillimetre* ($\cdot 001$ mm.), there is evidently an error here, and the measurements must be taken as *fractions of a millimetre*. This explanation would accord with already ascertained measurements of the large ganglionic cells of this region in the adult.