

HD-12: Development of the Nervous System

Reading Assignment:

Larsen: Human Embryology, 3rd Ed. - **Chapter 4**

Figures 4-2, 4-8, 4-9, 4-15 and 4-16

Pages 106-110 (up to date material and figures are presented in PPT and lecture).

Larsen: Human Embryology, 3rd Ed. - **Chapter 5**

Pages 113-119

Larsen: Human Embryology, 3rd Ed. - **Chapter 13**

Pages 421-429 and Tables 13-1&2.

Pages 433-438, as it relates to the cerebellum and information given in lecture.

Figure 13-16

Both anatomical and molecular information are presented in lecture. Many of the pictures in power point presentation are in your text.

Learning Objectives (not necessarily presented in order of appearance in lecture):

1. To understand the molecular mechanisms whereby the neuroepithelium is induced and the roles played by the signaling centers of the roof and floor plates in neuronal identities.
2. To understand the general principles underlying neuronal migration in the cerebral and cerebellar cortices, especially the significance of the radial/Bergmann glia, respectively.
3. To understand the morphological transformation of the CNS produced during neuronal production.
4. To understand the pattern of both spinal and cranial nerves and the principles that might guide axons to their final target.