Decomposición ontogenética del prosencefalo: un plato sofisticado con pocos ingredientes.

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Resumen: (es el abstract de la review que esta in press)

Abstract
The vertebrate Central Nervous System (CNS) originates from the embryonic dorsal ectoderm. Differentiation of the neural epithelium from the ectoderm and the formation of the neural plate constitute the first phase of a complex process called neurulation which culminates in the formation of the neural tube, the anlage of the CNS in sauropsids and mammals (for review see Smith and Schoenwolf, 1997; Colas and Schoenwolf, 2001). At neural plate and neural tube stages, local signaling centers in the neuroepithelium, known as secondary organizers, refine the antero-posterior specification of different neural territories (for review see Echevarria et al., 2003; Stern et al.,2006; Woltering and Durston, 2008). In this talk, we will describe the principle aspects of prosencephalic development in birds and mammals, starting from early stages of embryogenesis (gastrulation and neurulation) and culminating with the formation of a variety of different regions which contribute to the structural complexity of the brain (regionalization and morphogenesis). We will pay special attention to the cellular and molecular mechanisms involved in neural tube regionalization and the key role played by localized secondary organizers in the patterning of neural primordia.