



CDB SEMINAR

Lena Gunhaga

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Tuesday, November 13, 2012

16:00~17:00 A7F Seminar Room

Specification and patterning of the neural plate border - special focus on lens and olfactory placodes

Summary

In vertebrates, most cell types and organs develop by a series of inductive events which control both multi-cellular pattern and differentiation of individual cells. During the last decade it has become evident that the early development of most tissues and organs is regulated by the concerted actions of signals such as; HH, BMP/TGF β , FGF, Wnt, RA and Notch. Thus, the challenge now is not so much to identify novel signals, but to understand the mechanisms by which a limited number of signalling pathways interact during early development. One needs to understand how at different developmental stages, signals act in either convergent, opponent or hierarchial manners, and how different concentrations and time of exposure to signalling molecules affect cell fate. To understand the early development of the peripheral nervous system (PNS), we have established in vitro and in vivo assay systems in chick to perform gain and loss of function studies. Results on the mechanism of early specification and patterning of neural progenitor cells in the PNS, and the differential specification of olfactory epithelial and lens cells will be presented.

Host:

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