

# Identification of Neural Crest Competence Territory: Role of Wnt Signaling

Bastidas, Francisco

De Calisto, Jaime

Mayor, Roberto

In recent years, research on neural crest induction has allowed the identification of several molecules as candidates for neural crest inducers. Although many of these molecules have the ability to induce neural crest in different assays, a general mechanism of neural crest induction that includes a description of the tissues that produce the inductive signals and the time and steps in which this process takes place remains elusive. To better understand the mechanism of neural crest induction, we developed an assay that has been used previously by Nieuwkoop to study anterior-posterior pattern of the neural plate. Folds of competent ectoderm were implanted in different positions of a young neurula embryo, and the induction of neural crest was analyzed using the expression of the neural crest marker Xslug. We identified a very localized region of the early neurula where it is possible to get neural crest induction, whereas all of the regions tested showed a clear induction of the neural