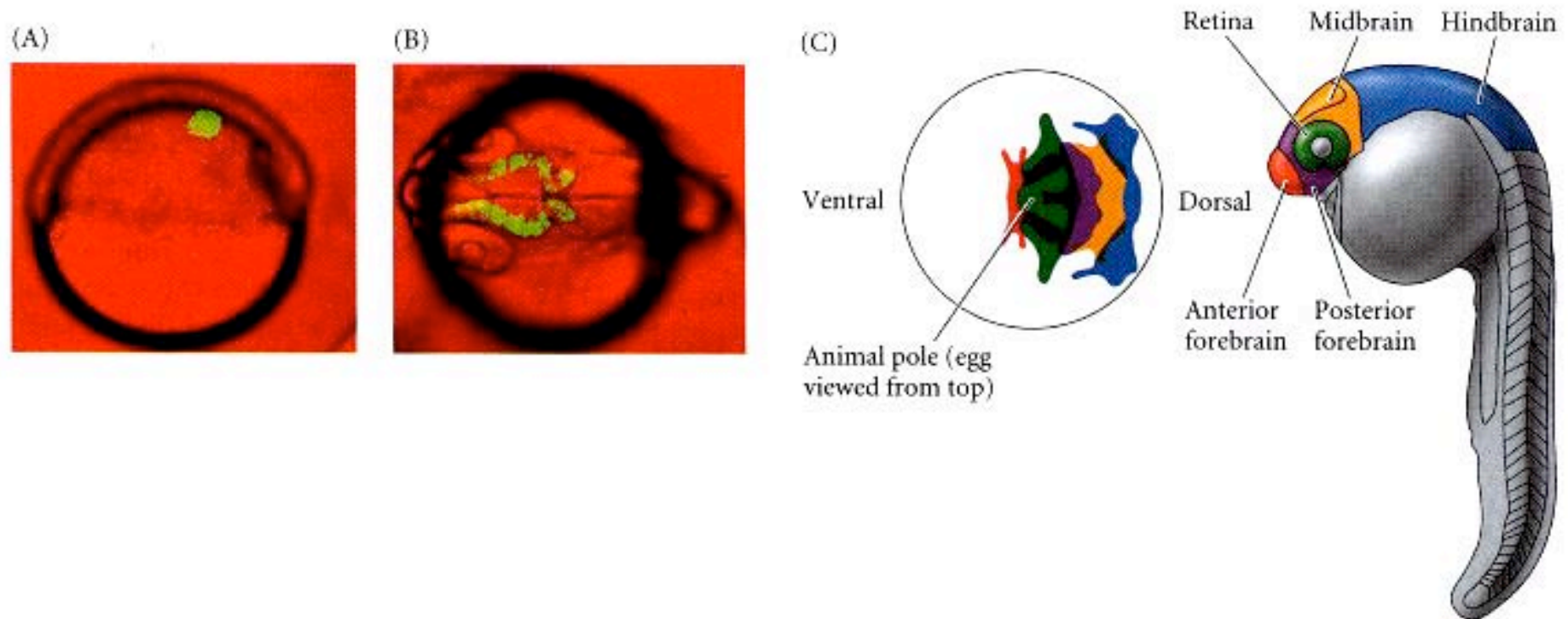
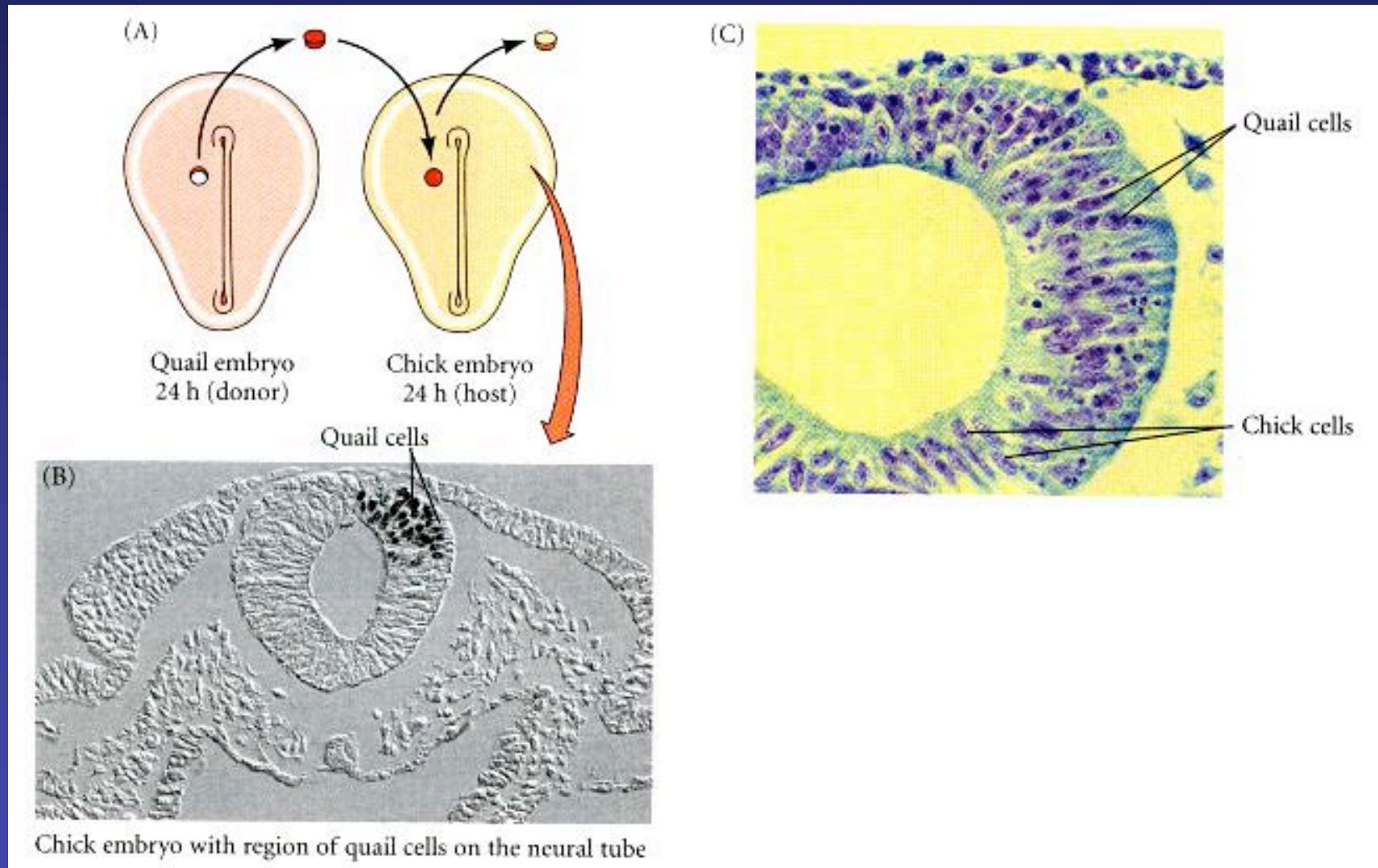


D

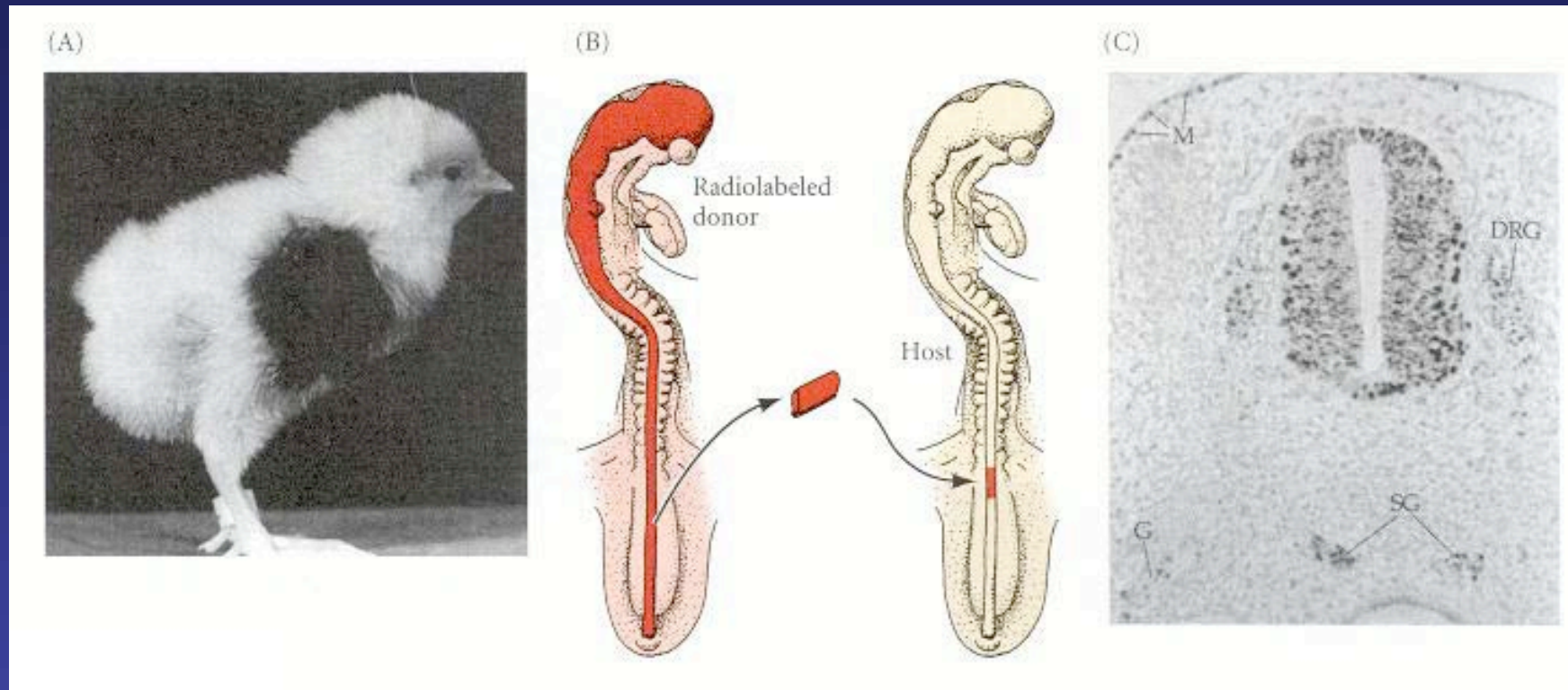
Mappa presuntiva mediante tracciante fluorescente Rosenquist, 1966



Mappa presuntiva mediante tracciante cellulare esogeno trapiantato Le Douarin, 1969

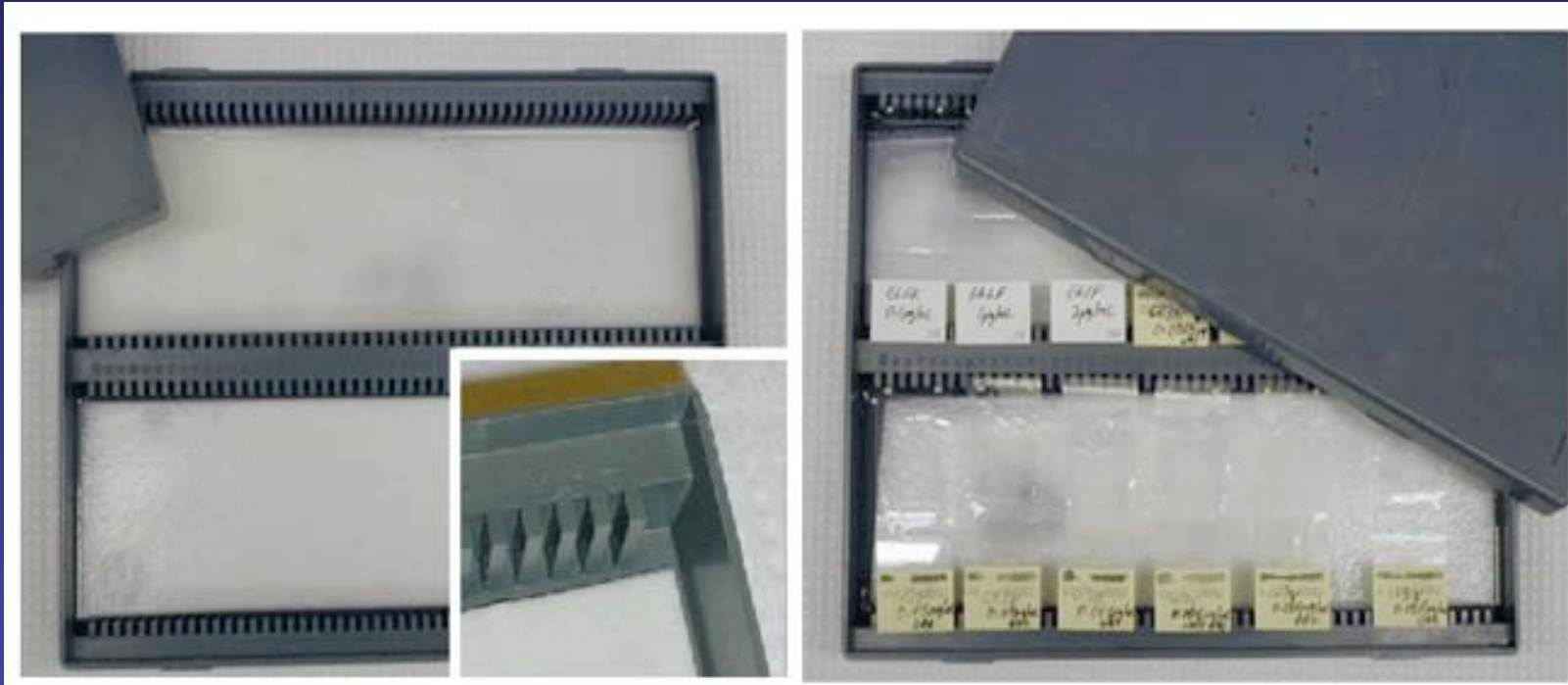


Concetto di migrazione cellulare: i melanociti

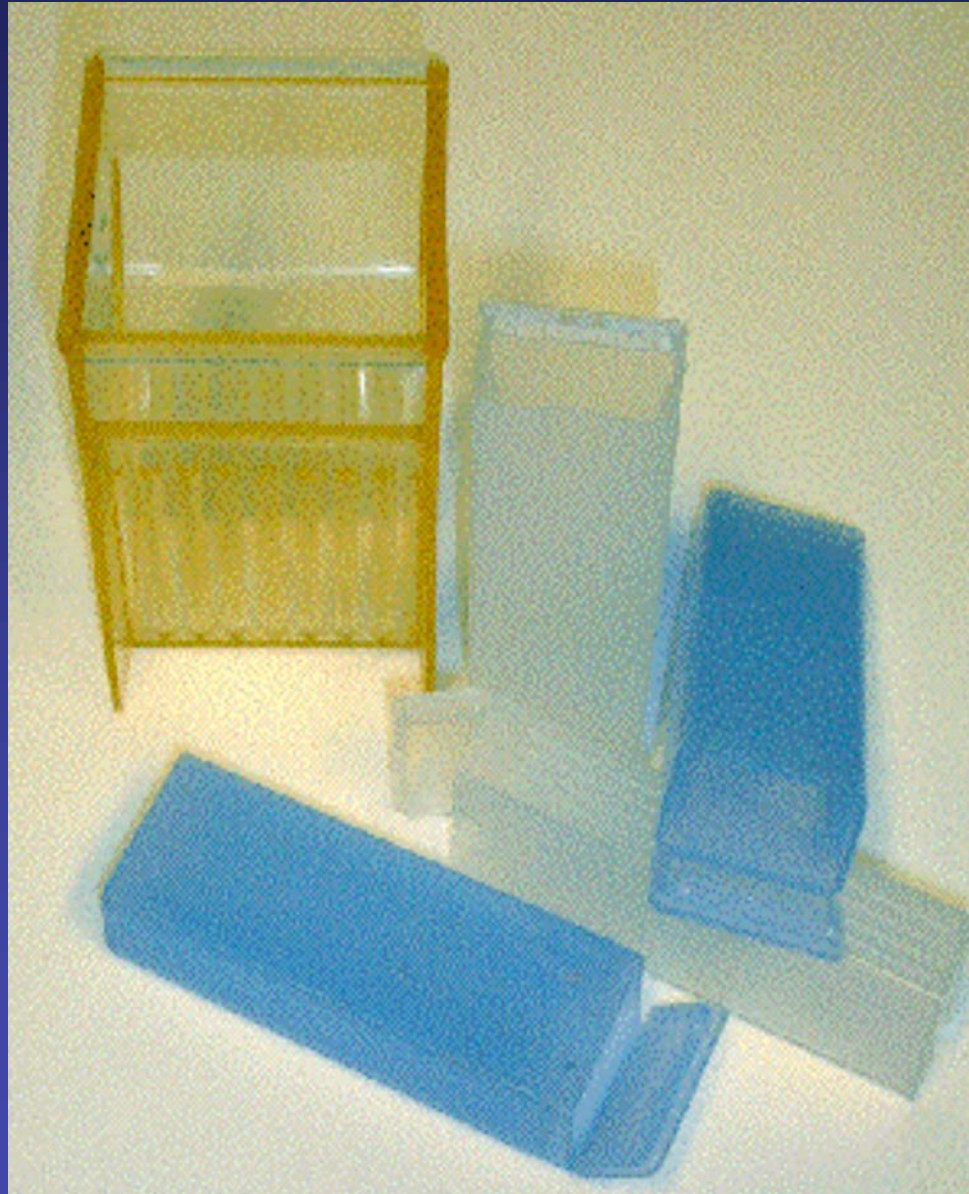


Altre migrazioni: cellule della linea germinale, cellule precorritrici del sangue

L'ibridazione in situ va eseguita in ambiente umido

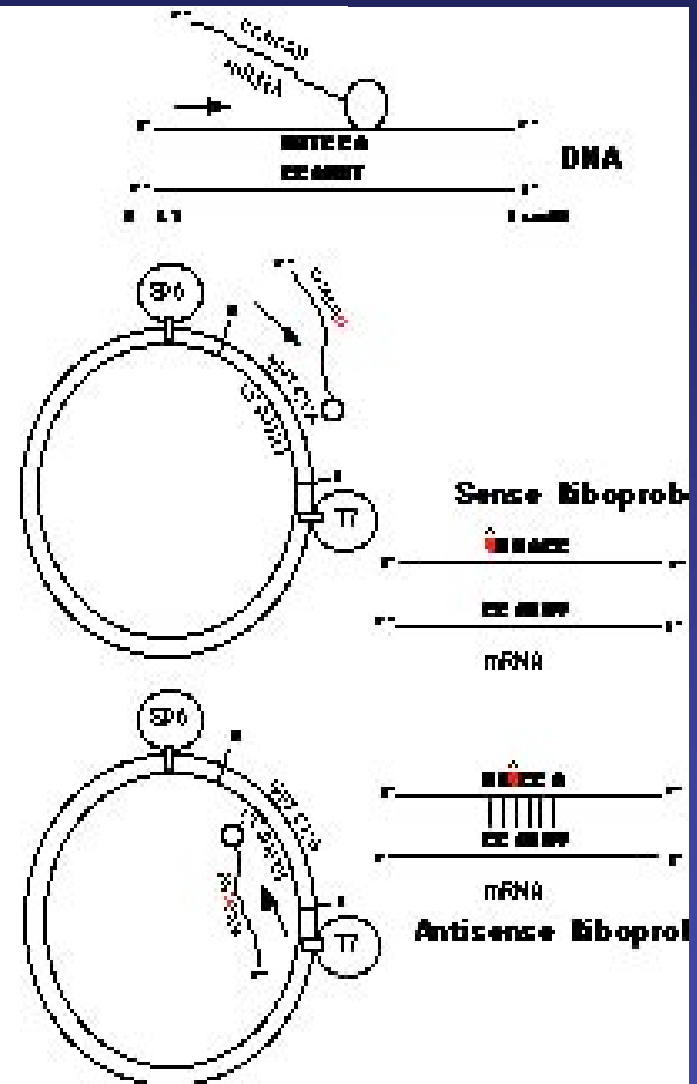


I lavaggi vengono eseguiti in contenitori detti *coplin jar*



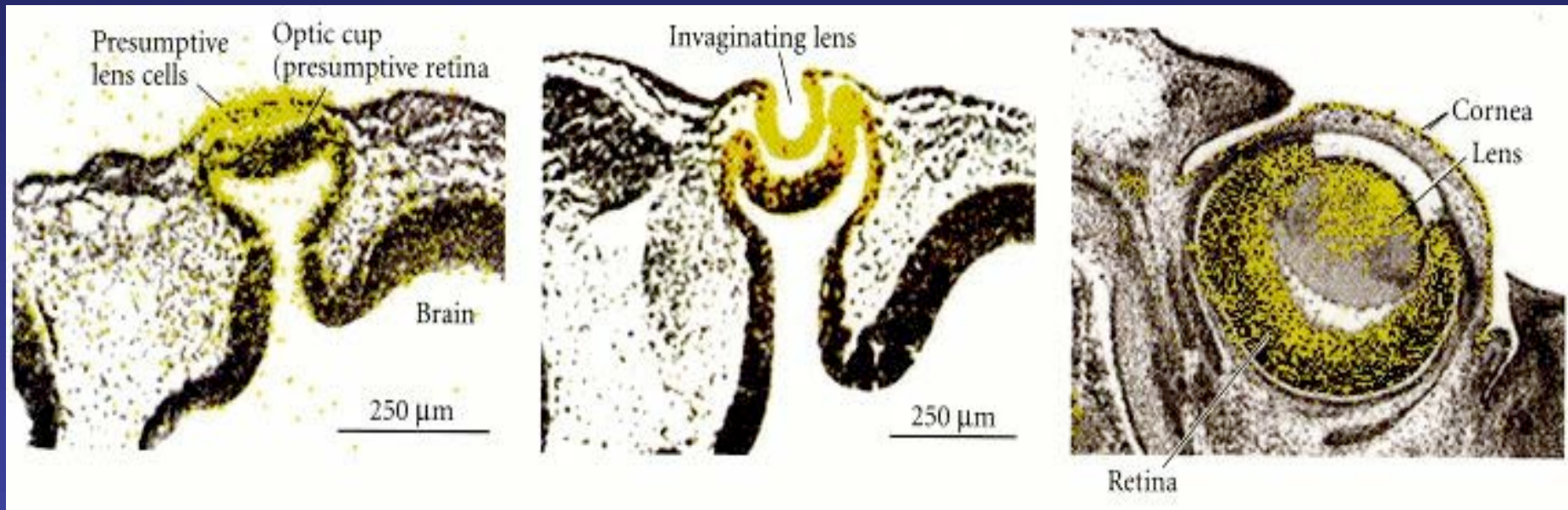
Il protocollo dell'ibridazione in situ

fresh brain frozen on dry ice
↓
20µm cryosections on slides
↓
fixation, acetylation, delipidation
↓
hybridization (overnight at 37-40 °C)
³⁵S labelled 48-mer oligonucleotide
↓
washes in 1x SSC
4x15 min at 55 °C + 2x1 h at 20-25 °C
↓
dipping in emulsion (NTB-2)
↓
exposure
↓
development and staining

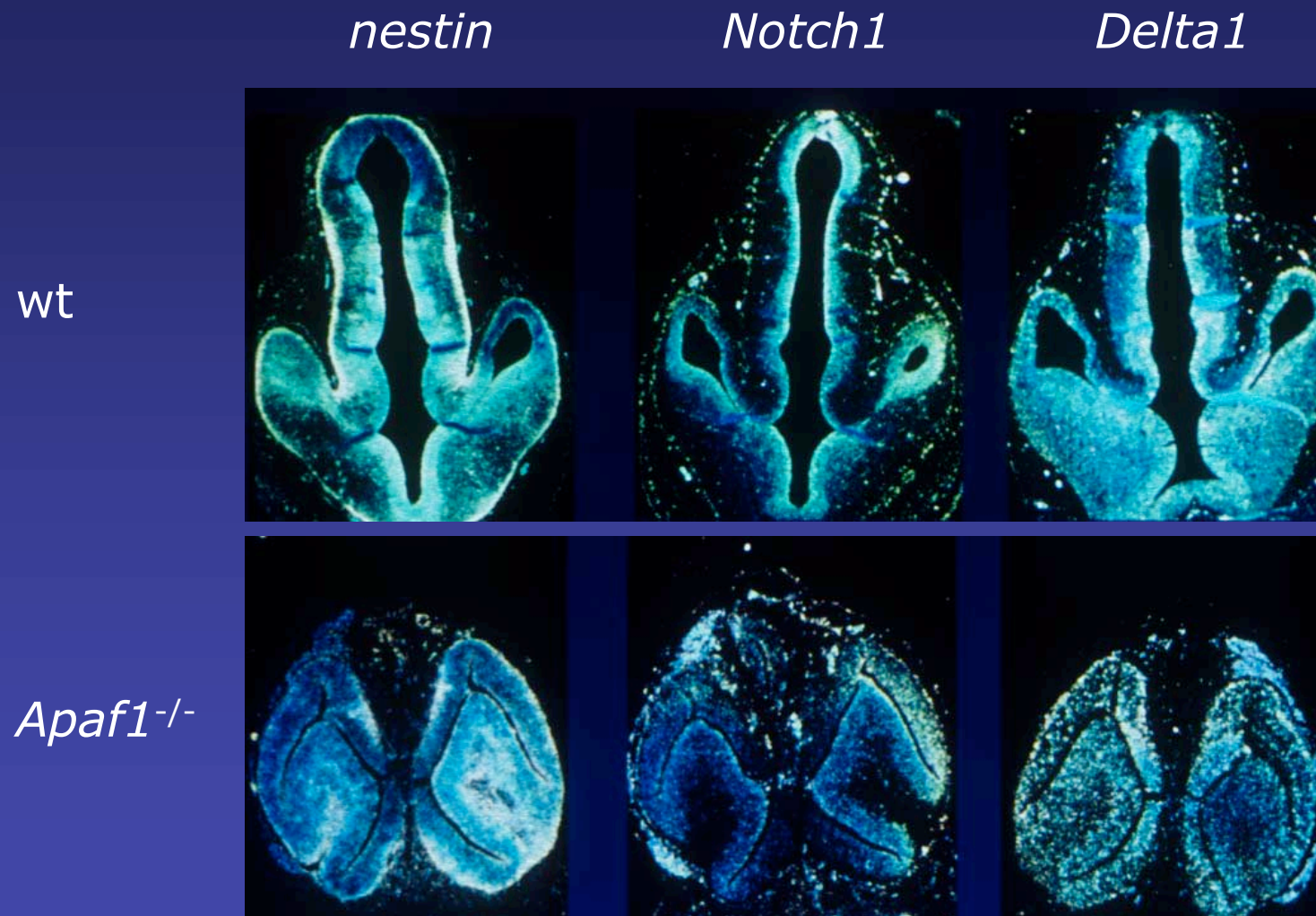


Il protocollo dell'ibridazione in situ radioattiva

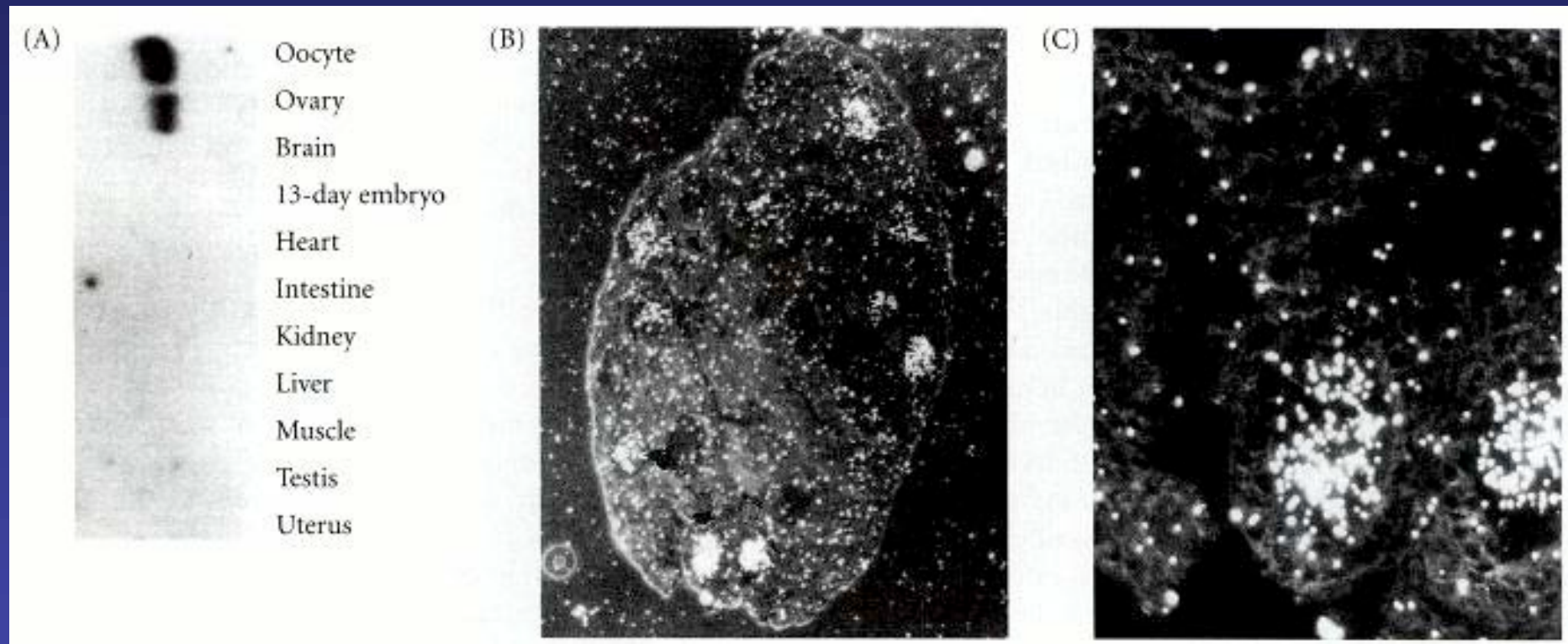
Esempio 1: *Pax6*



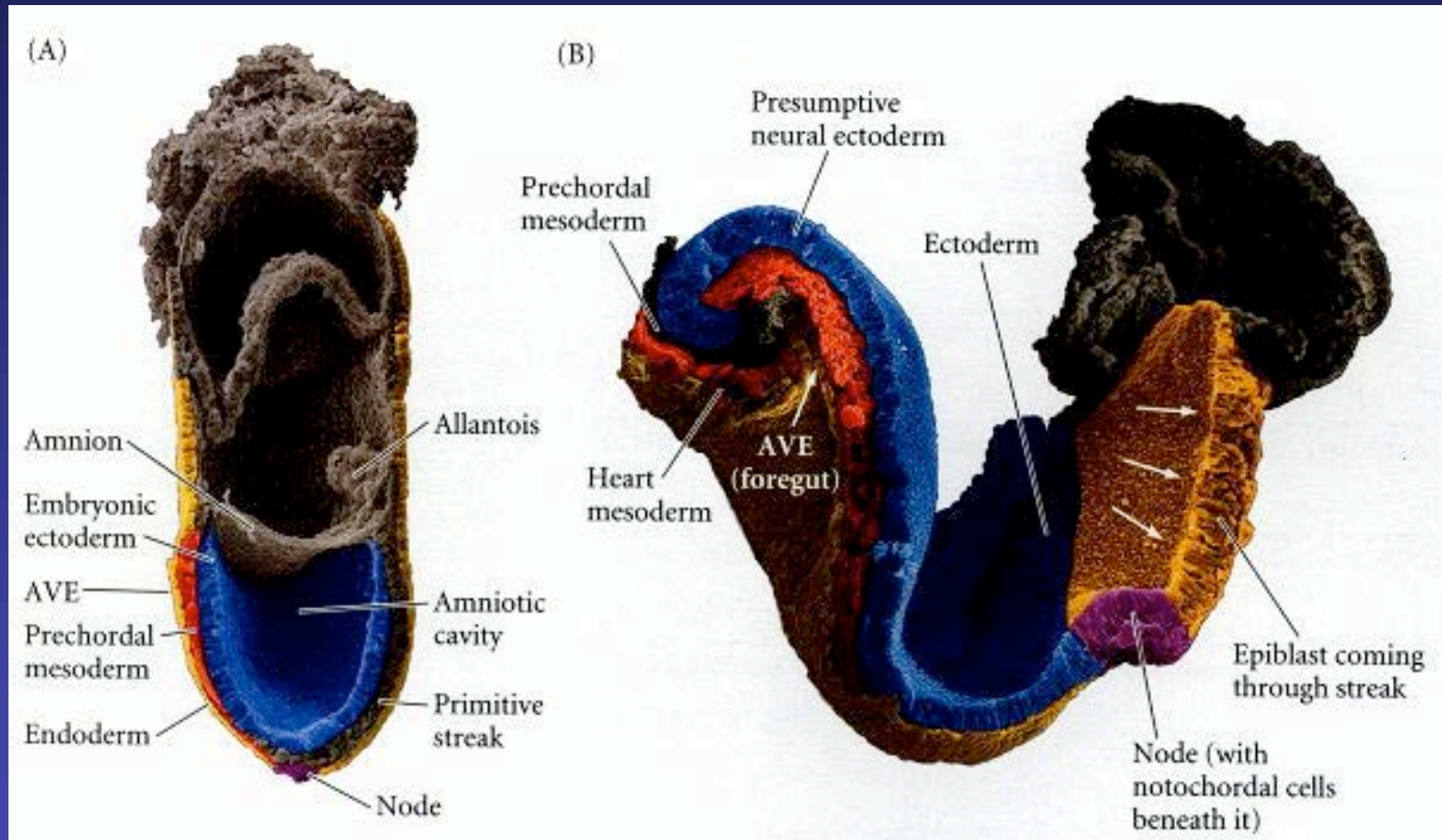
Neural differentiation in the e12.5 *Apaf1*^{-/-} cerebrum



Il gene ZP3 nello sviluppo dell'oocita



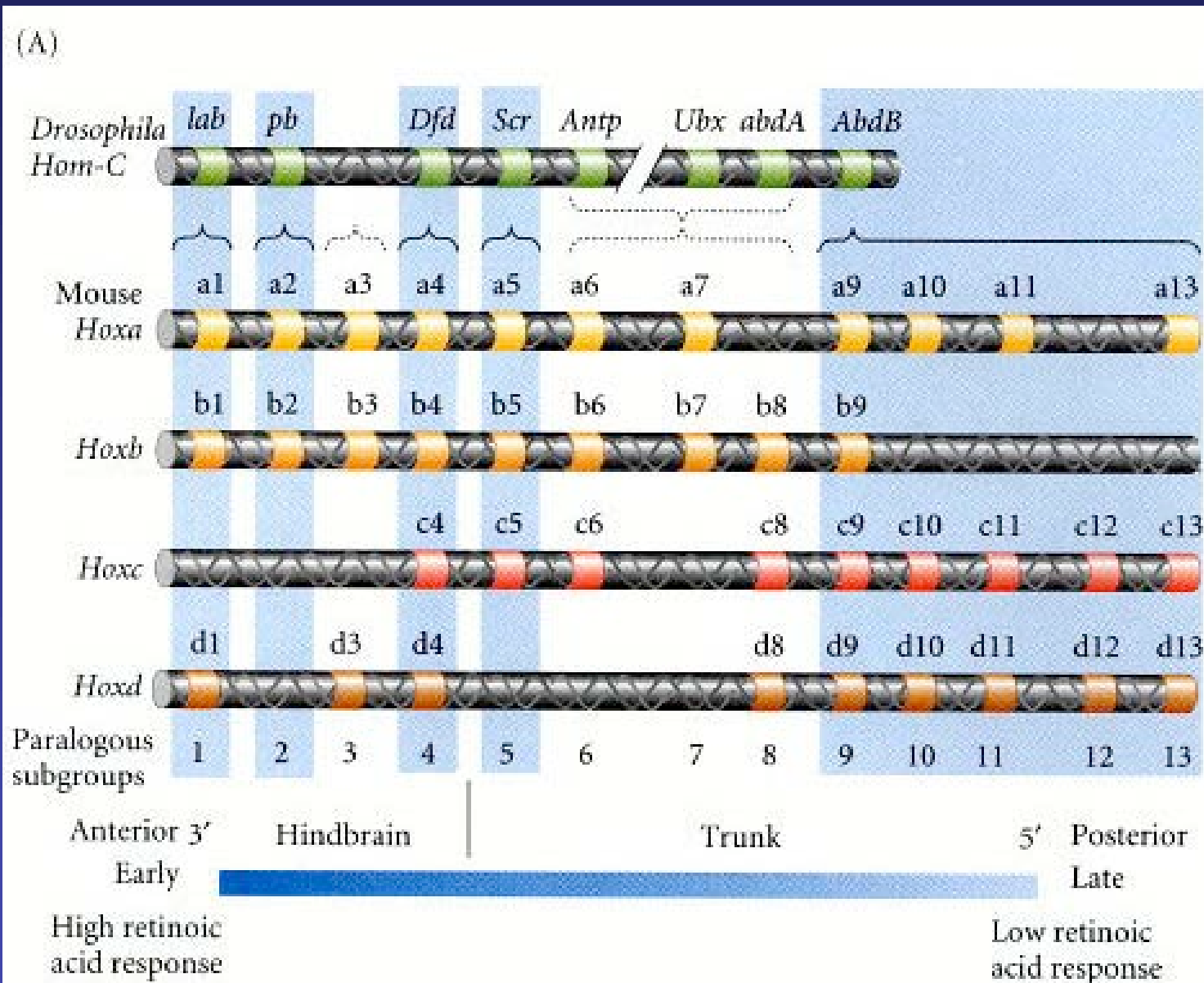
I due centri di segnalazione dell'embrione di topo



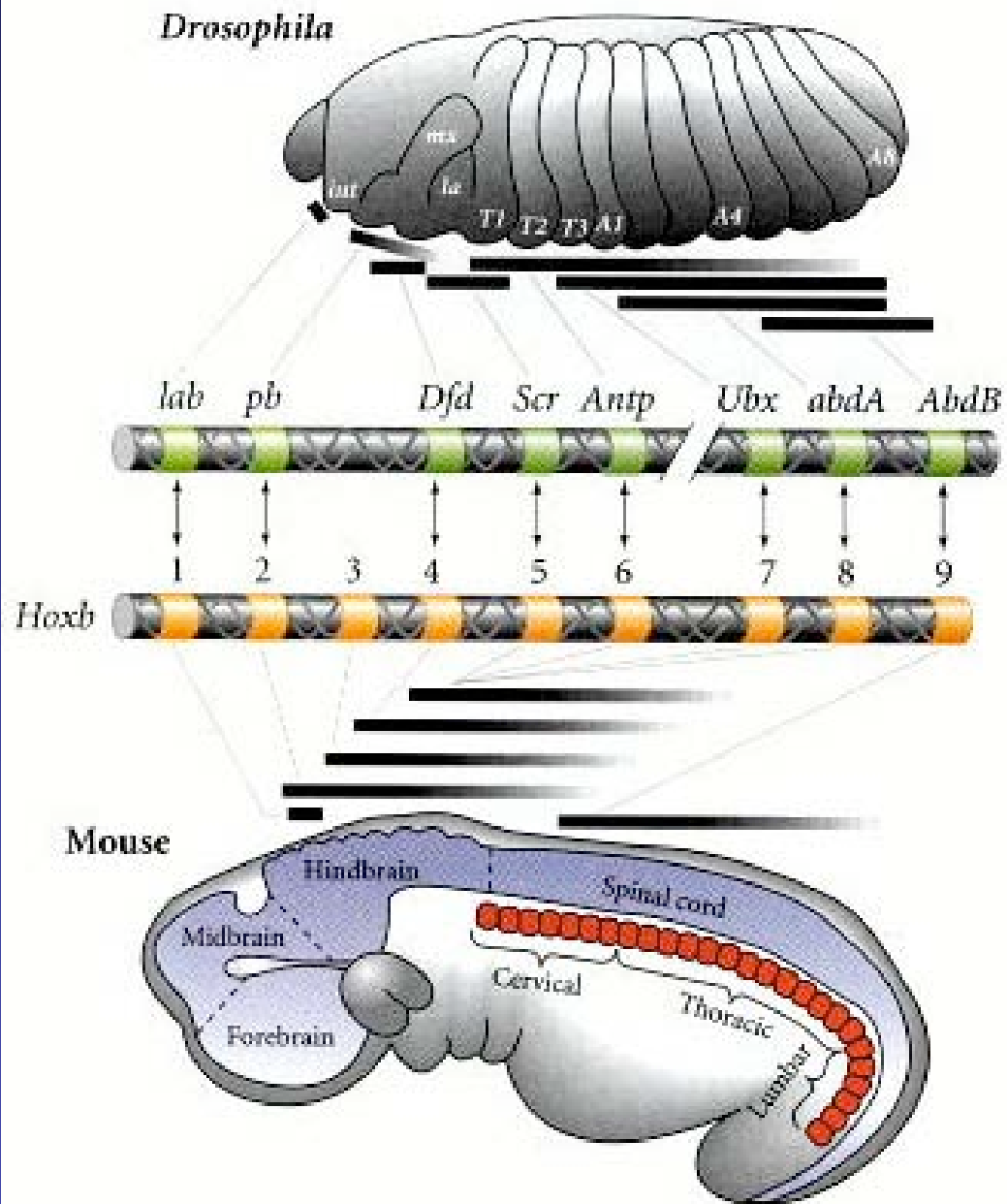
La mutazione di uno dei geni organizzatori della testa: *Lim-1*



L'organizzazione dei geni omeotici e' evolutivamente conservata

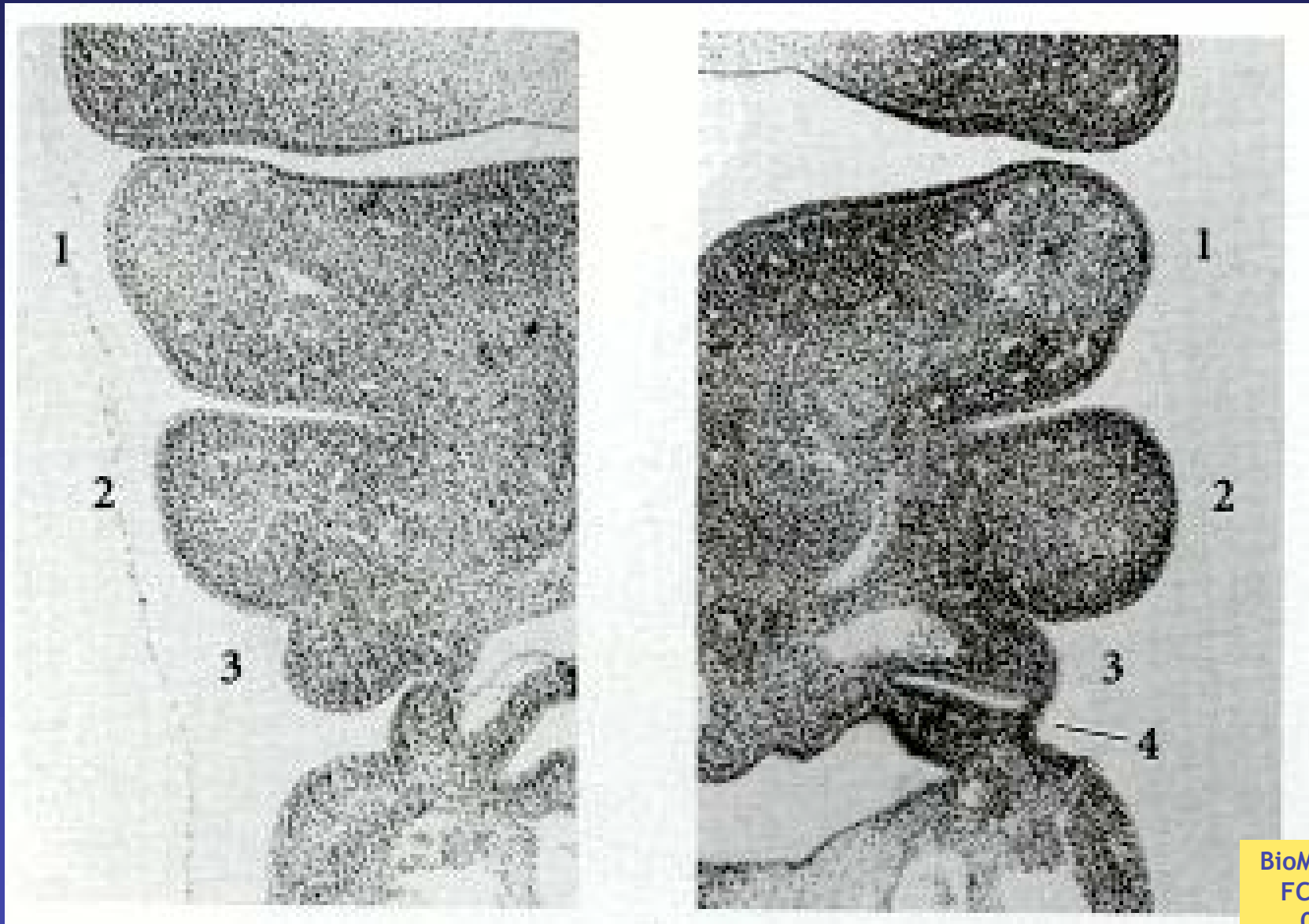


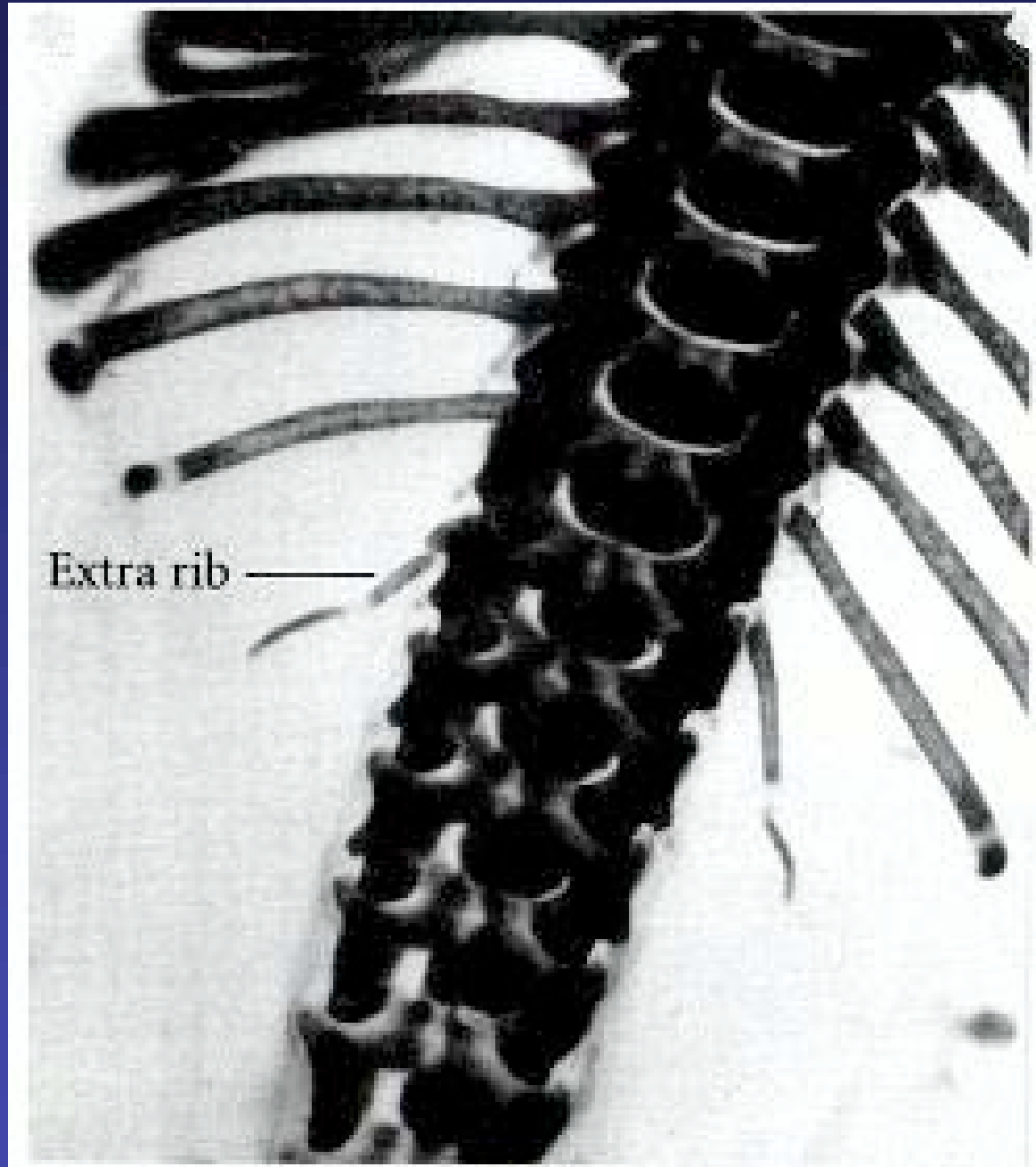
(B)



Anche l'espressione dei
geni omeotici e'
evolutive conservata

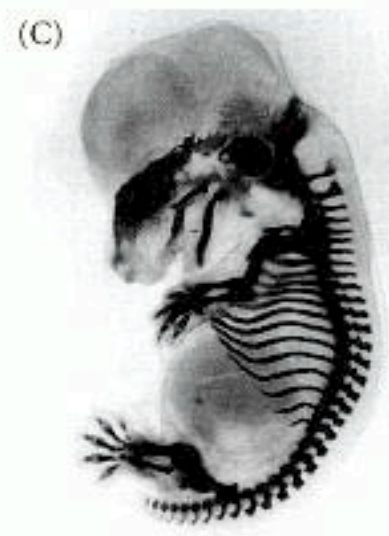
I topi mutanti per il gene *Hoxa-3* presentano difetti dei derivati delle creste neurali



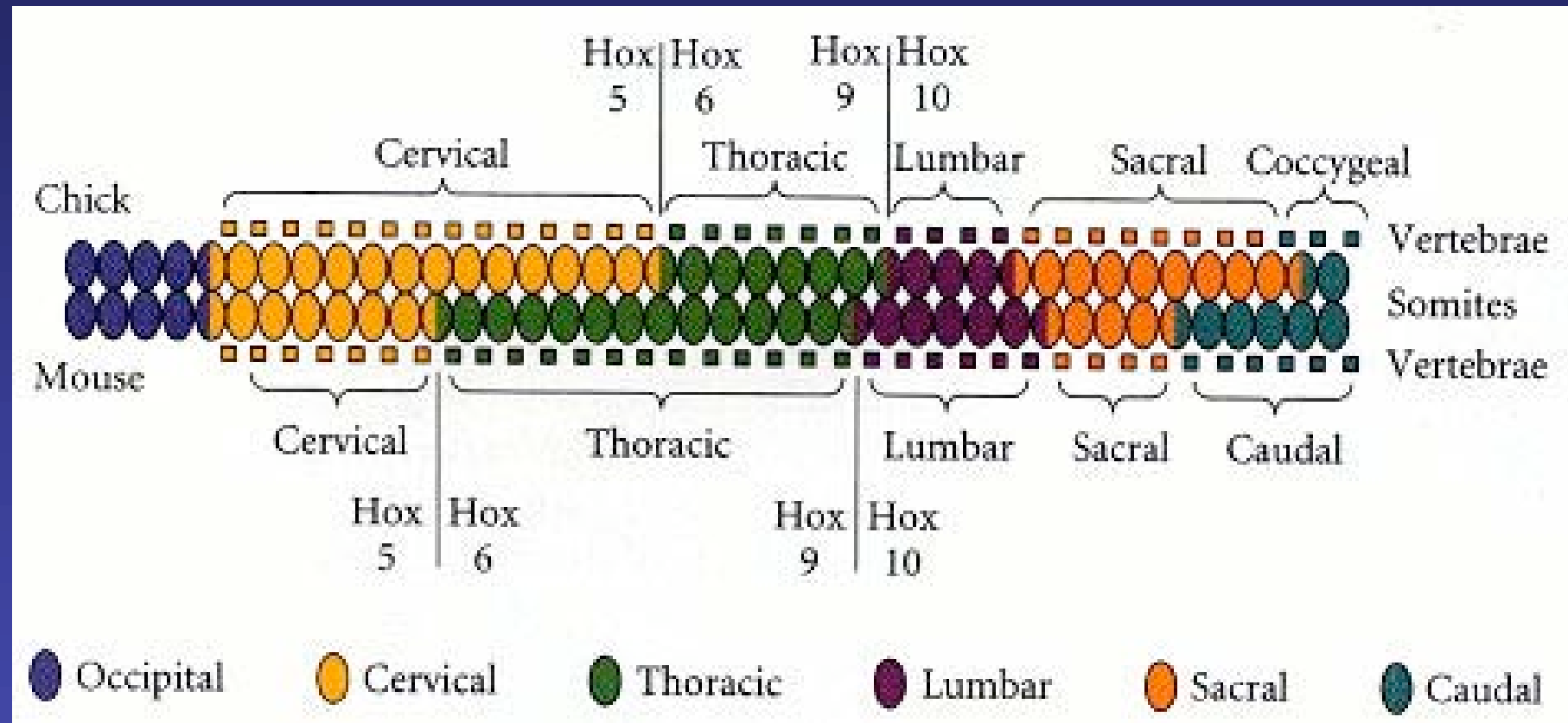


I topi mutanti per il gene *Hoxc-8* presentano la **trasformazione** della prima vertebra lombare in una vertebra toracica

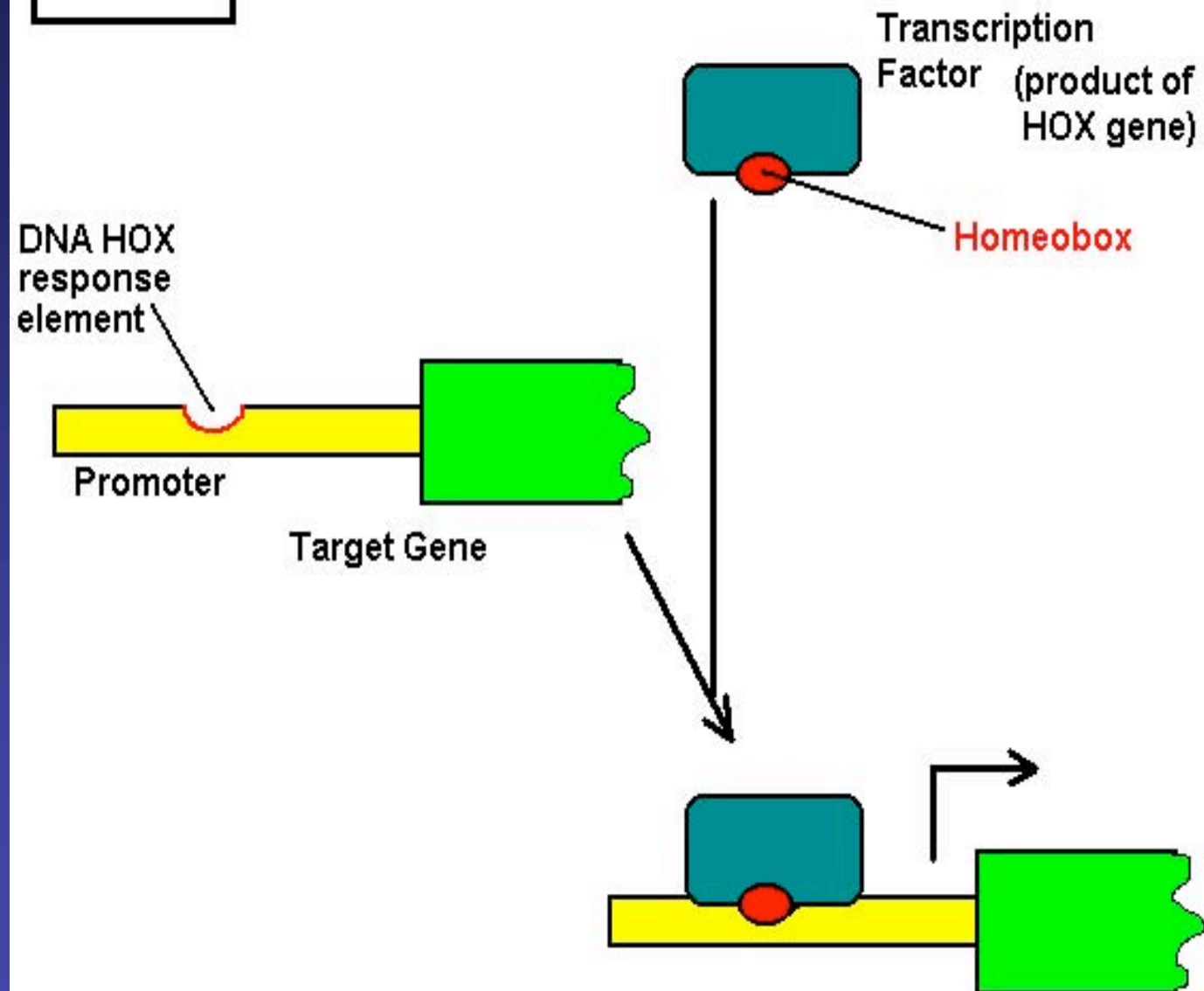
Acido retinoico e teratogenesi



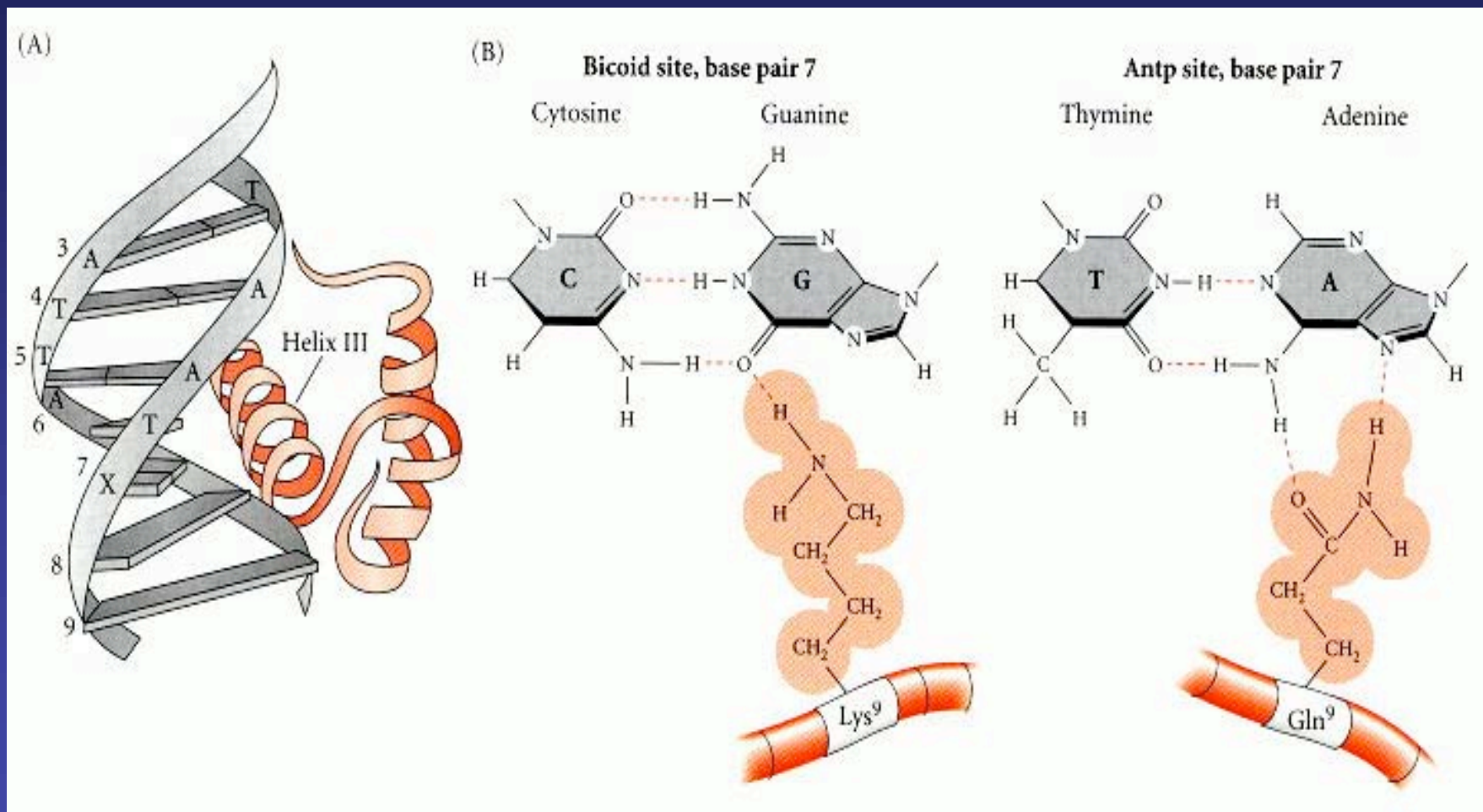
Schema del **profilo vertebrale** in uccelli e mammiferi lungo l'asse antero-posteriore



Homeobox

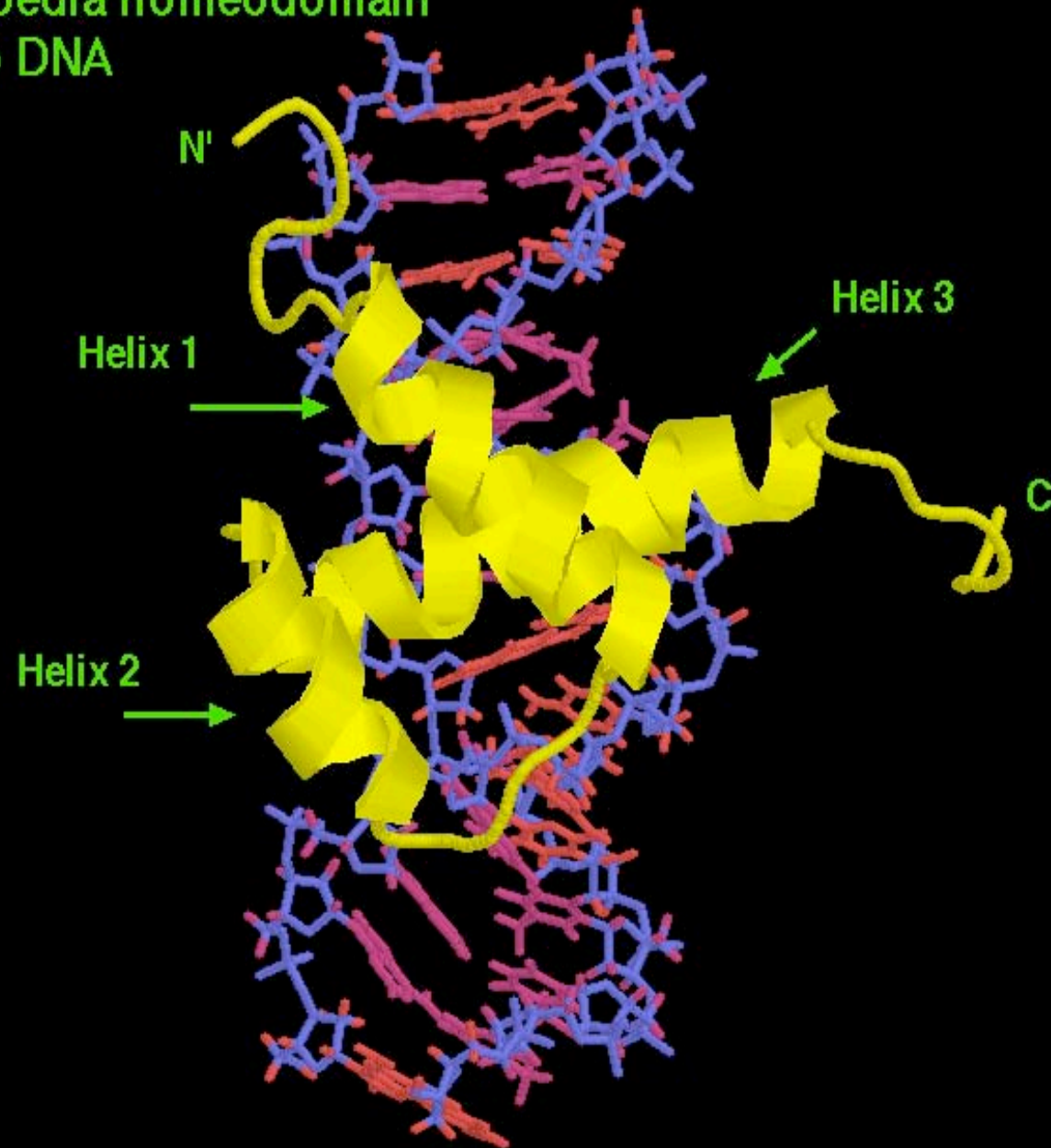


Le interazioni DNA-omeodominio.I



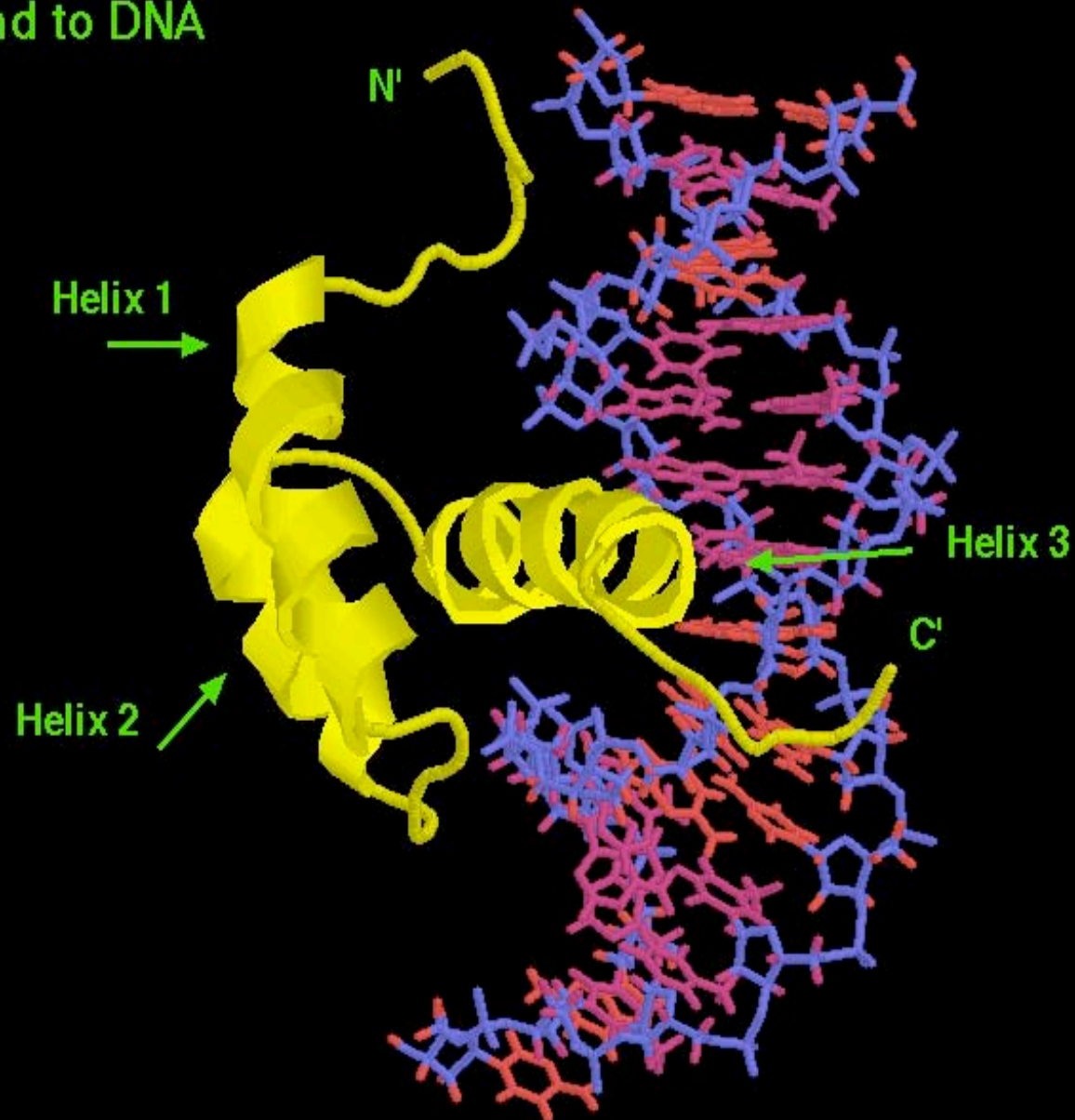
Le interazioni DNA-omeodominio.I

Antennapedia homeodomain
bound to DNA

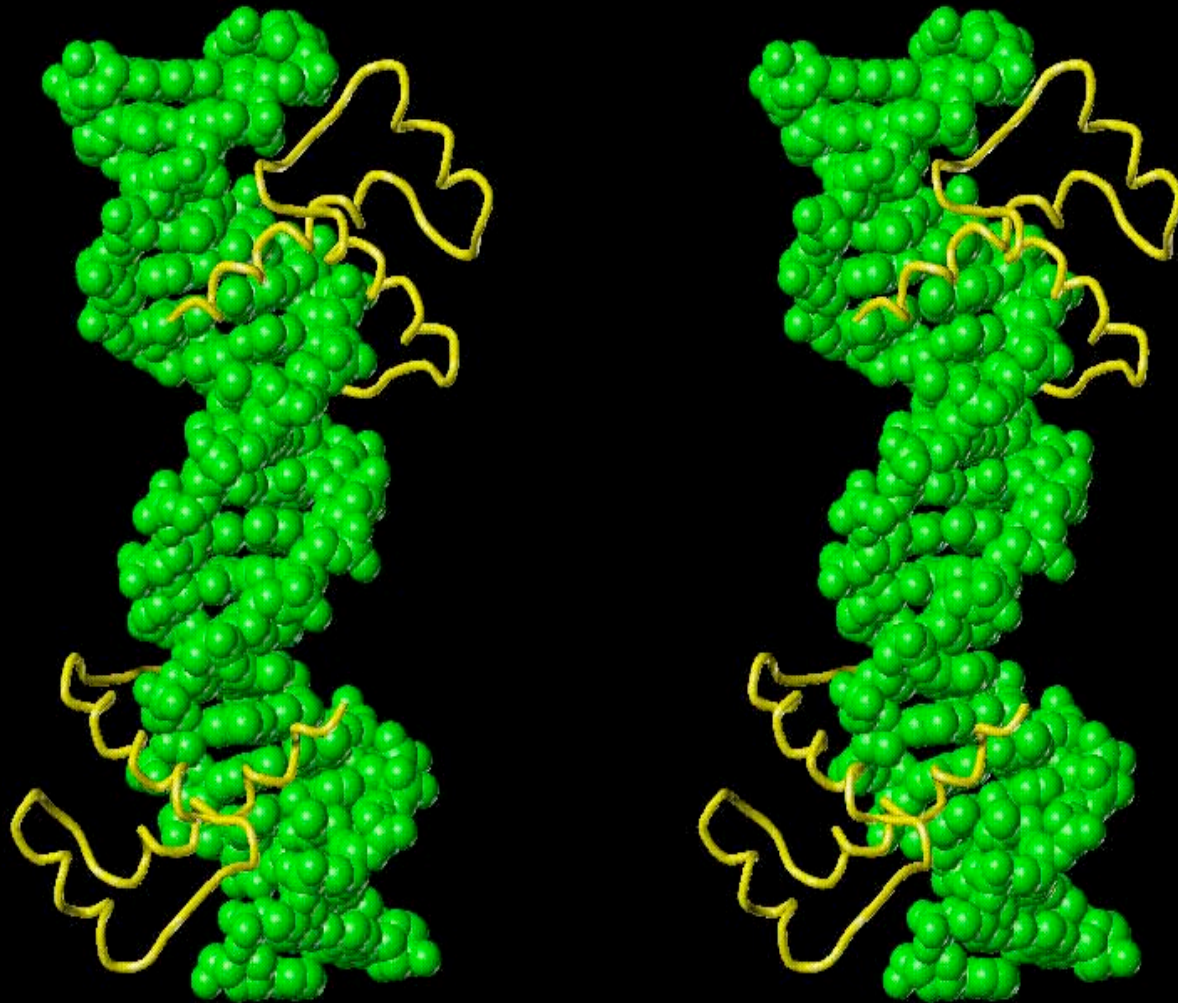


Le interazioni DNA-omeodominio.I

Antennapedia homeodomain
bound to DNA



Le interazioni DNA-omeodominio.I



MAT ALPHA2 HOMEODOMAIN COMPLEXED WITH OPERATOR DNA (1APL)

Glossario

HOMEBOX Conserved DNA sequence that encodes a DNA-binding domain (homeodomain) in a class of transcription factors encoded by certain genes.

HOMEODOMAIN A conserved DNA-binding motif found in many developmentally important transcription factors. See also homeobox.

HOMEOTIC GENE A gene in which mutations cause cells in one region of the body to act as though they were located in another, giving rise to conversions of one cell, tissue, or body region into another.