

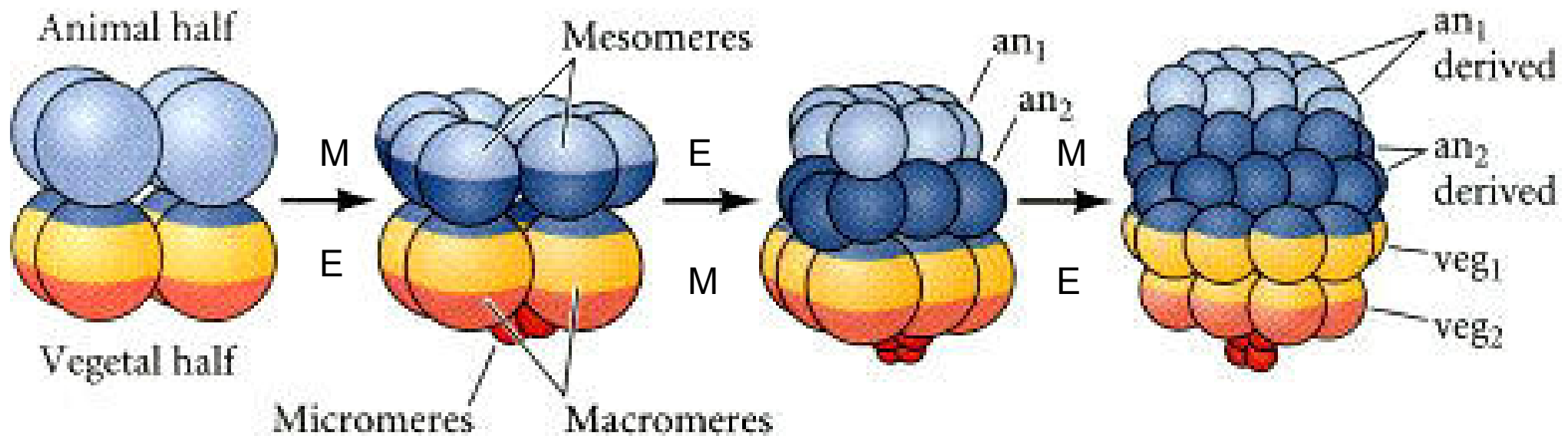
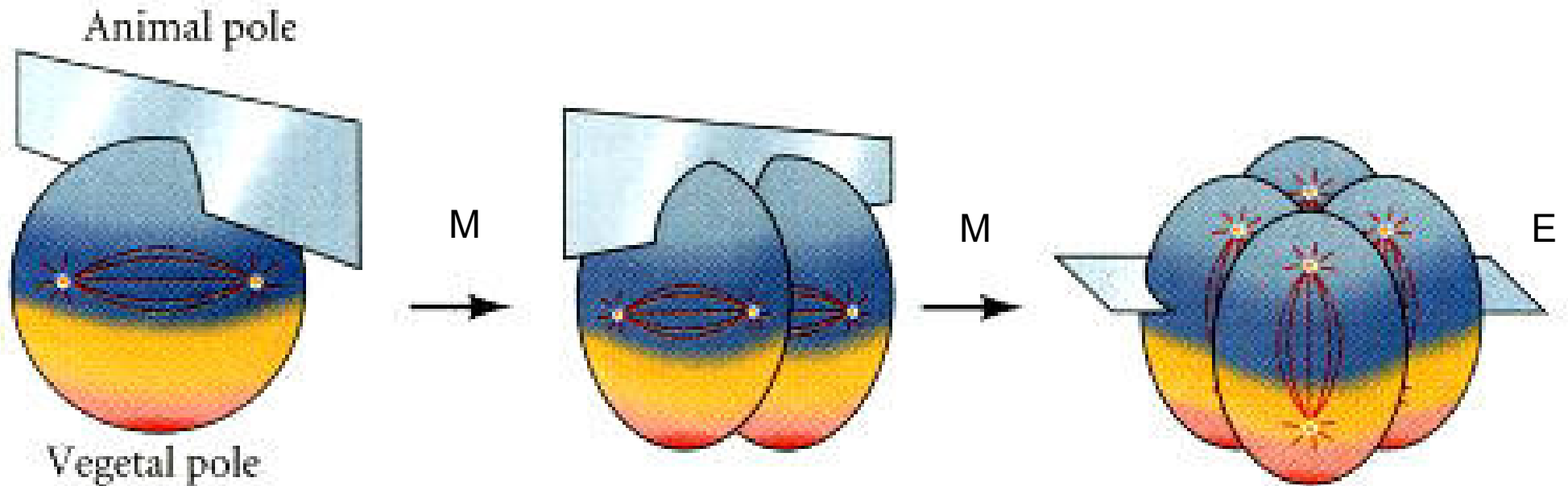
Blastulation

- ✓ Formation of the blastula
 - ✓ Hollow ball of cells
 - ✓ Blastomeres surrounding blastocoel cavity

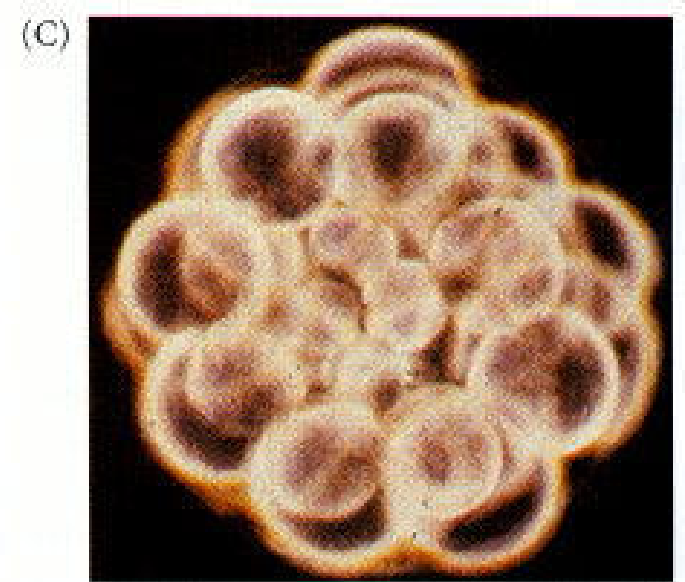
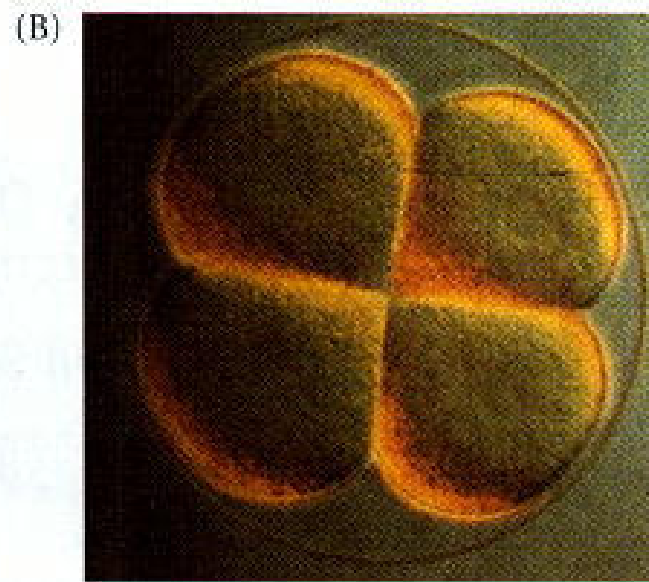
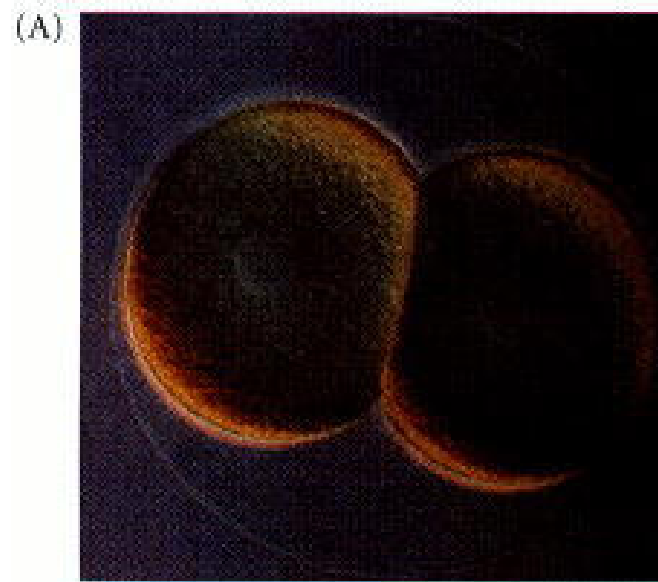
Sea Urchin Cleavage

- Holoblastic
- Radial

Sea Urchin Cleavage

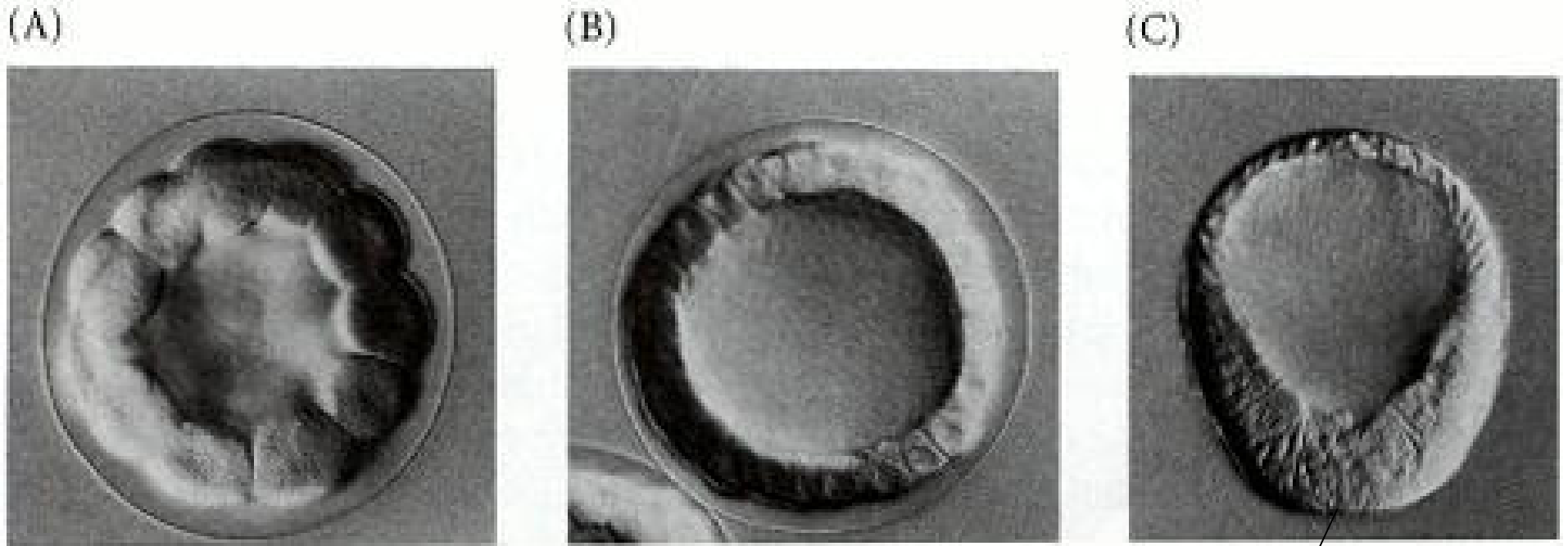


Sea Urchin Cleavage



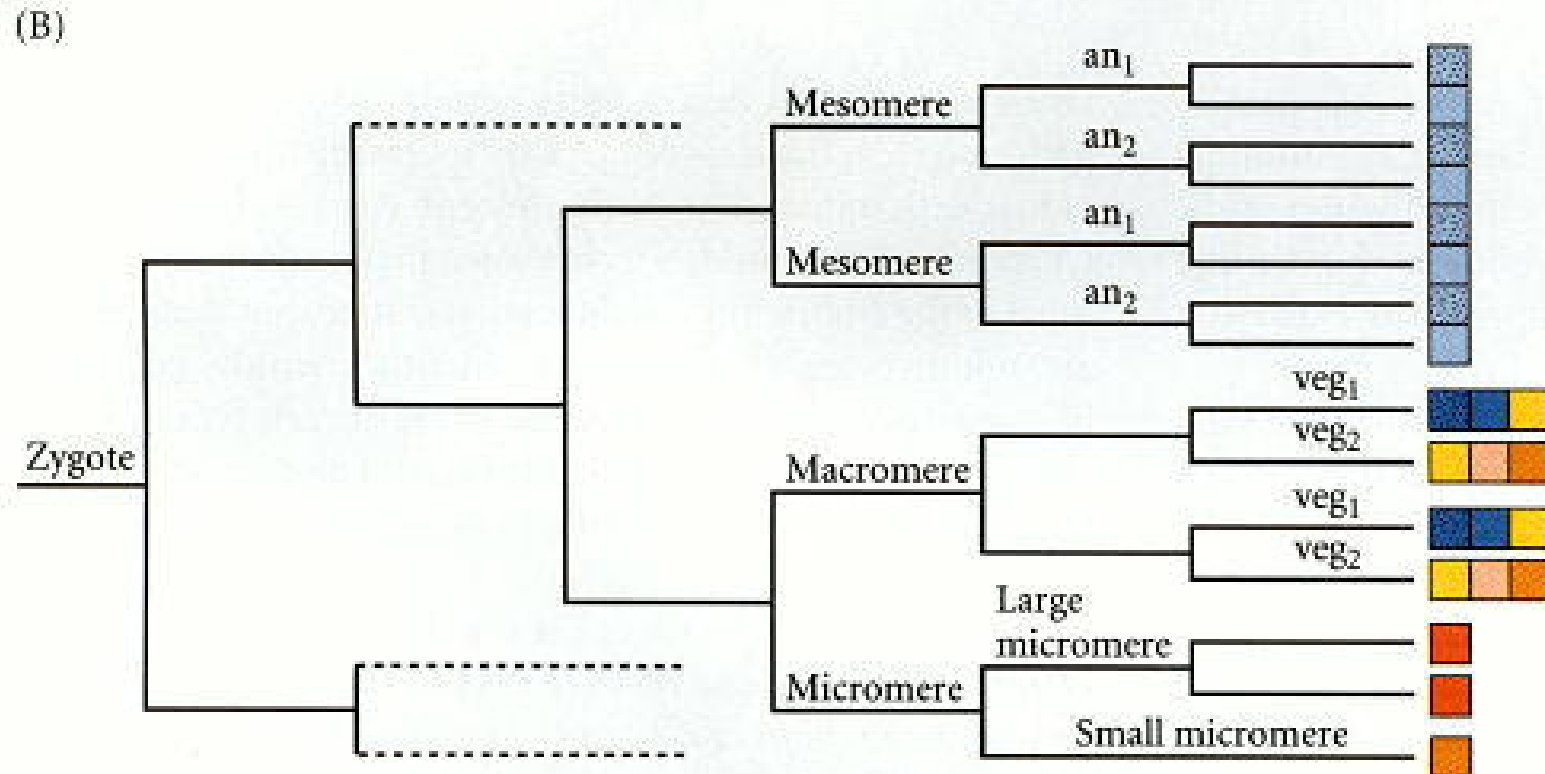
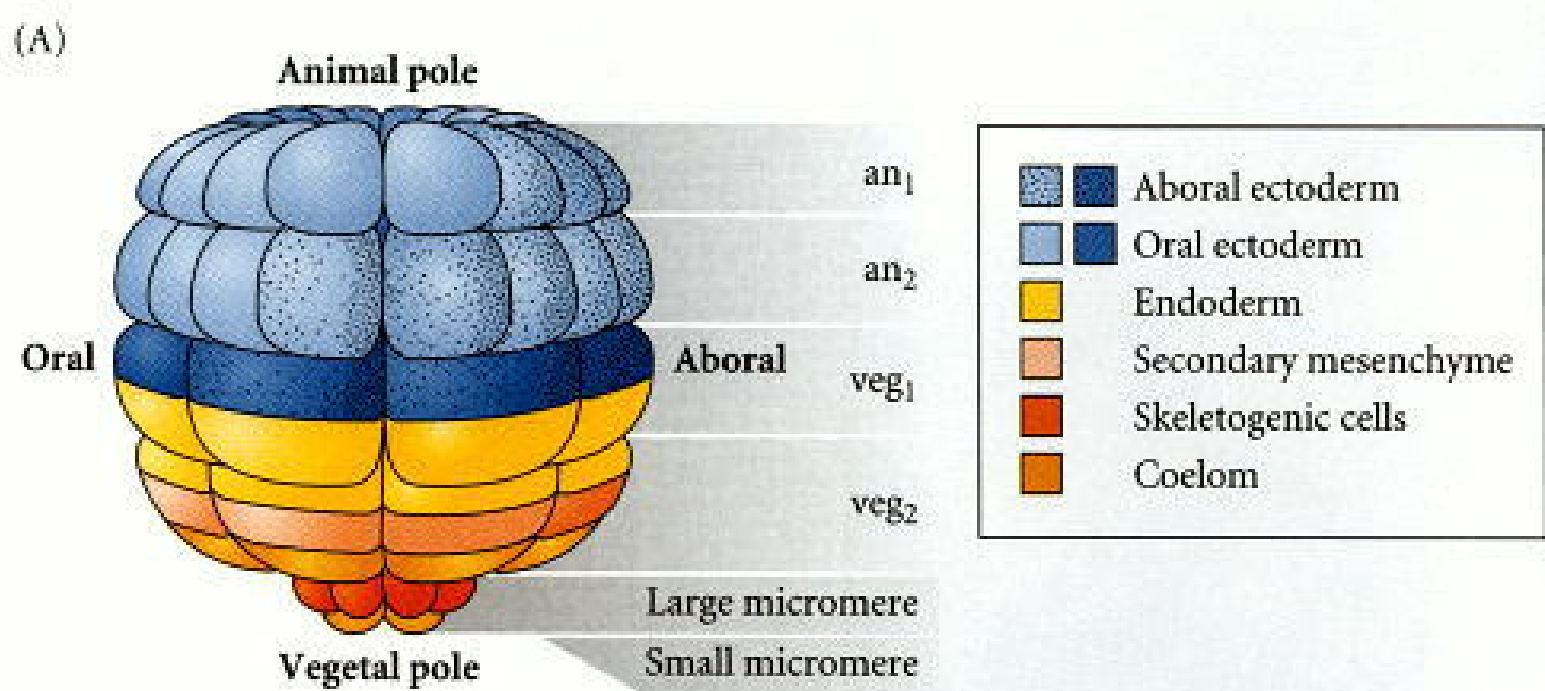
Blastulation

Formation of Vegetal Plate



Vegetal Plate

Fate Map



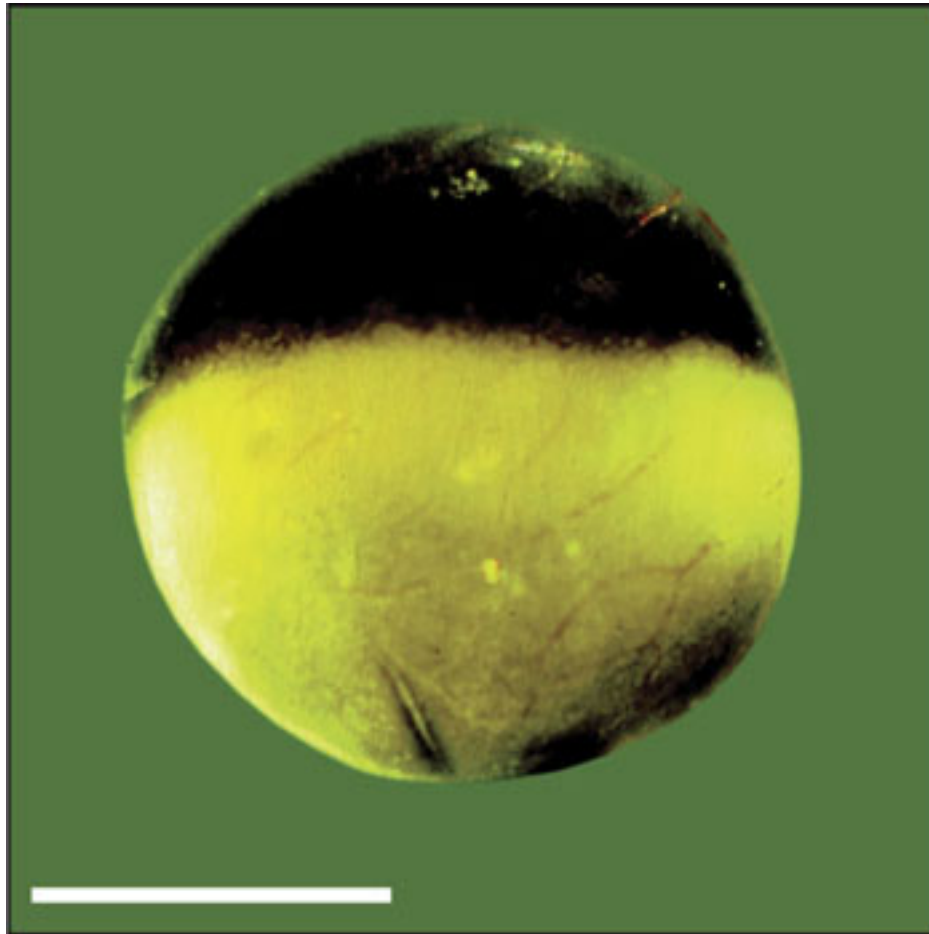
Frog Fertilization

- Animal hemisphere
 - Sperm entry point
 - Establishes the dorsal/ventral axis
 - Ventral side – sperm entry
 - Dorsal side – gray crescent
 - Organized by sperm centriole

Frog Cleavage

- Unequal radial holoblastic cleavage
 - Yolk retards division of vegetal pole
 - Second cleavage starts before first is finished

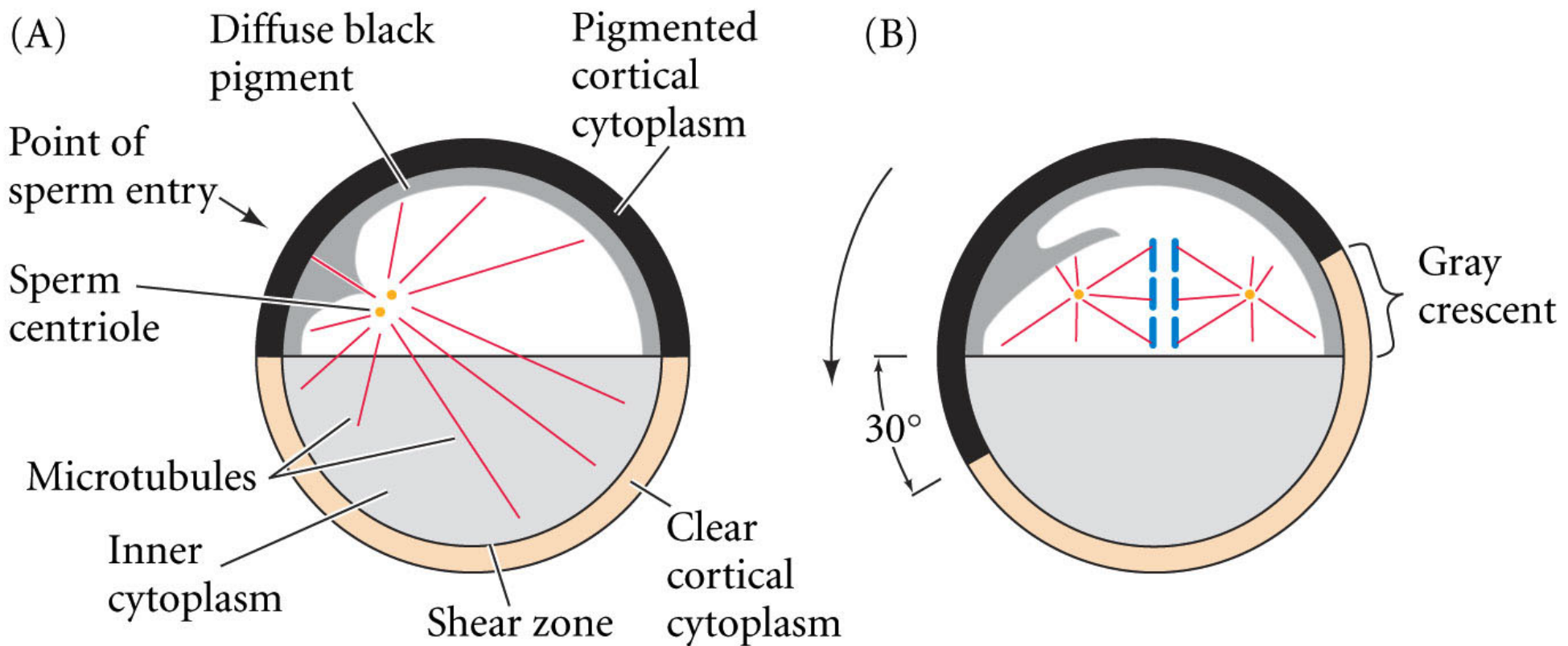
Frog oocyte



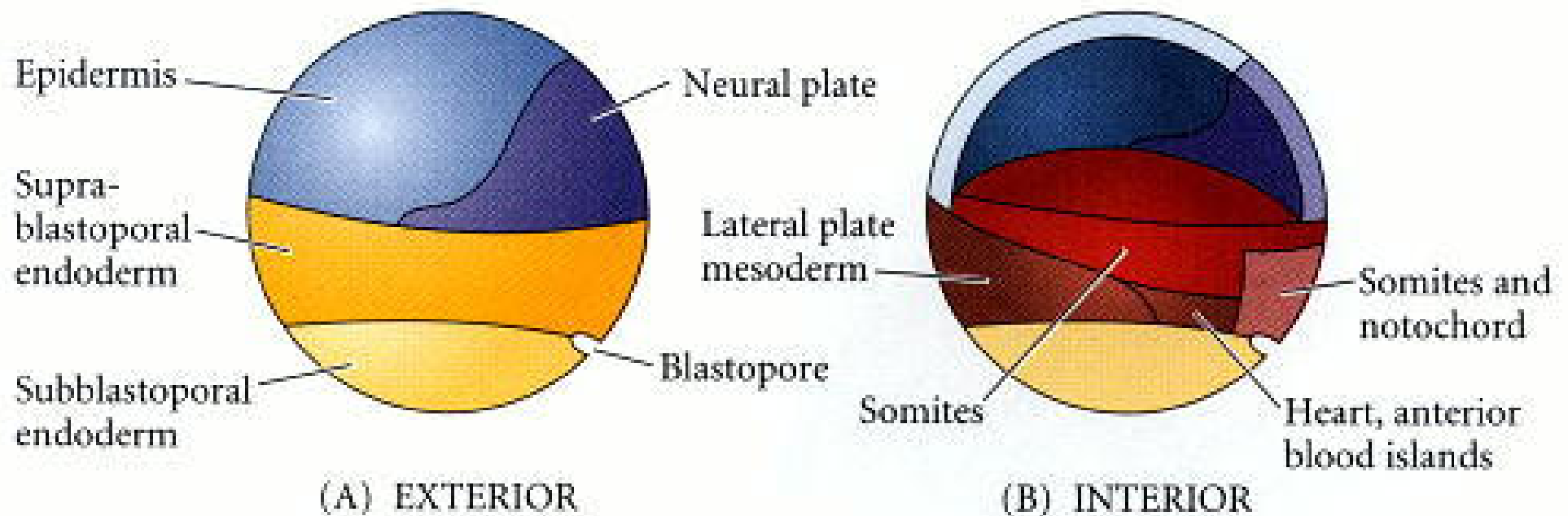
Gray Crescent

- Opposite to sperm entry
- Results from rotation of cortical layer of oocyte

10.2 Reorganization of cytoplasm in the newly fertilized frog egg (Part 1)

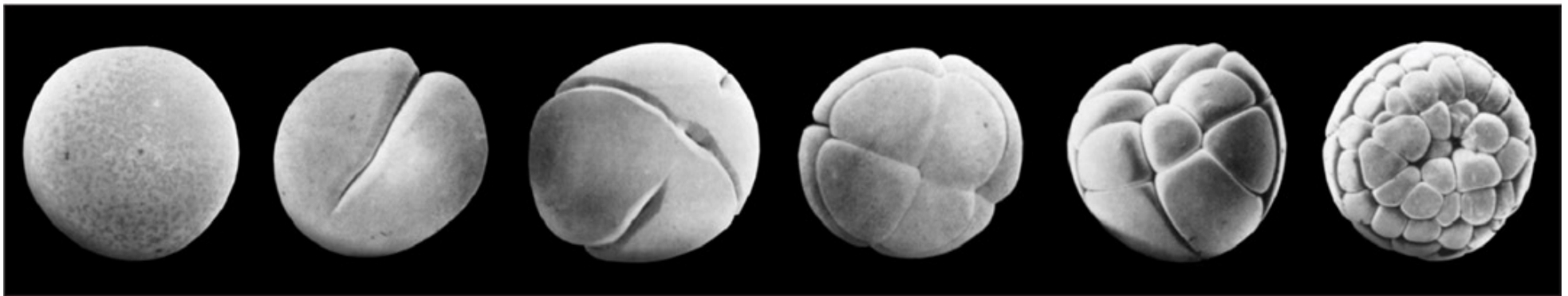
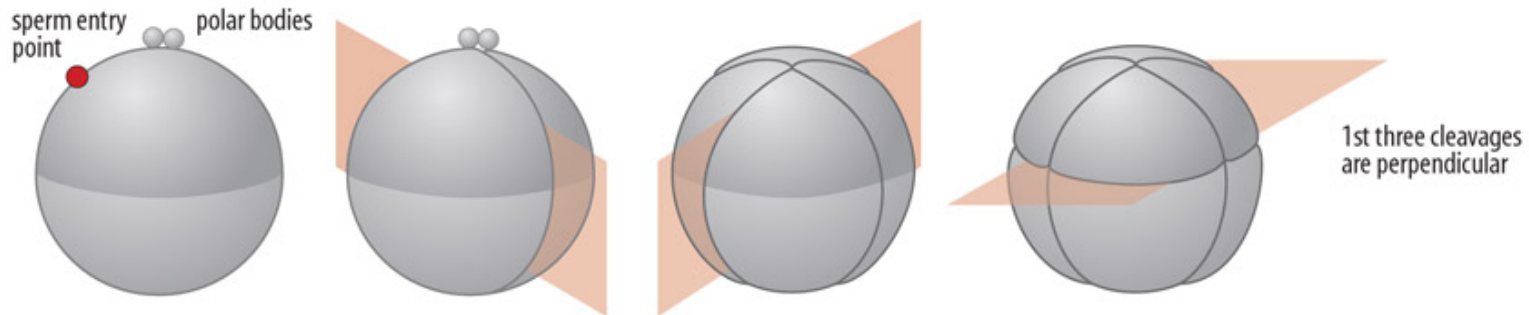


Early Fate Map



Frog cleavage

Cleavage in *Xenopus*



Frog gastrulation

