The first recorded developmental biologist was Aristotle, who studied chick development in 350 BC!

William Harvey, in 1651—
--concluded all animals come from eggs (no more spontaneous generation
--noticed “islands” of blood cells prior to heart formation

The Human Infant Preformed in the Sperm, as Depicted by Nicolas Hartsoeker (1694)

Germ layers of the Xenopus (frog) embryo
The Similarities and Differences among Different Vertebrate Embryos

The Notochord in the Chick Embryo

Fate Maps of Different Vertebrate Classes at the Early Gastrula Stage

Experimental Embryology--

--led by Wilhelm Roux and Hans Driesch
--they manipulated embryos to determine if development was mosaic (each part develop autonomously from Information within cell) or regulative (embryos develop via crosstalk)

--defined experimental approaches still used today:
1. Defect expt - destroy part of embryo
2. Isolation expt - remove part of embryo and observe
3. Recombination expt - replace one part with piece from another part
4. Transplantation expt - replace one part with piece from a different embryo
Thomas Hunt Morgan (1866–1945)

(A) Head of a Wild-type Fruit Fly. (B) Head of a Fly Containing the Antennapedia Mutation

Basic Outline of Development--

1. Gametogenesis
2. Fertilization
3. Cleavage
4. Gastrulation
5. Organogenesis
6. Larval (optional)