

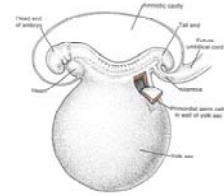


Notes: Development of oocyte



Bilaminar germ disc

- 4/40: *Primordial germ cells (PGCs)* from Epiblast move to the yolk-sac
- 6-7/40: PGCs migrate to the gonads
- Once , in the gonads, PGCs become *oogonia*
- Up to 5th month: Most oogonia undergo mitosis – some enter meiosis I and arrested in prophase (now called *primary oocyte*)
- By 7th month: Most oogonia have entered prophase I, and are surrounded by flat epithelial cells (primary oocyte + flat follicular cells from ovarian epithelium = *primordial follicle*)
- At birth: (diplotene – resting – stage. Prophase I)



Notes: Development of oocyte..cont.

- Puberty: Each month ~ 15 – 20 primordial follicles go through:
 - **Primary** or preantral follicle (flat *follicular cells* become cuboidal *granulosa cells*; surrounding *stromal cells* become thecal cells)
 - **Secondary** or antral or vesicular or Graafian follicle (longest of 3)
 - Preovulatory (lasts 36 hours)
- During preovulatory phase, MEIOSIS I is completed (at last!) – now called a *secondary oocyte*. 1st polar body formed. Cell enters meiosis 2.
- ~ 3 hours before ovulation: secondary oocyte arrested in *metaphase II* !
- Meiosis II is completed only after fertilisation!

