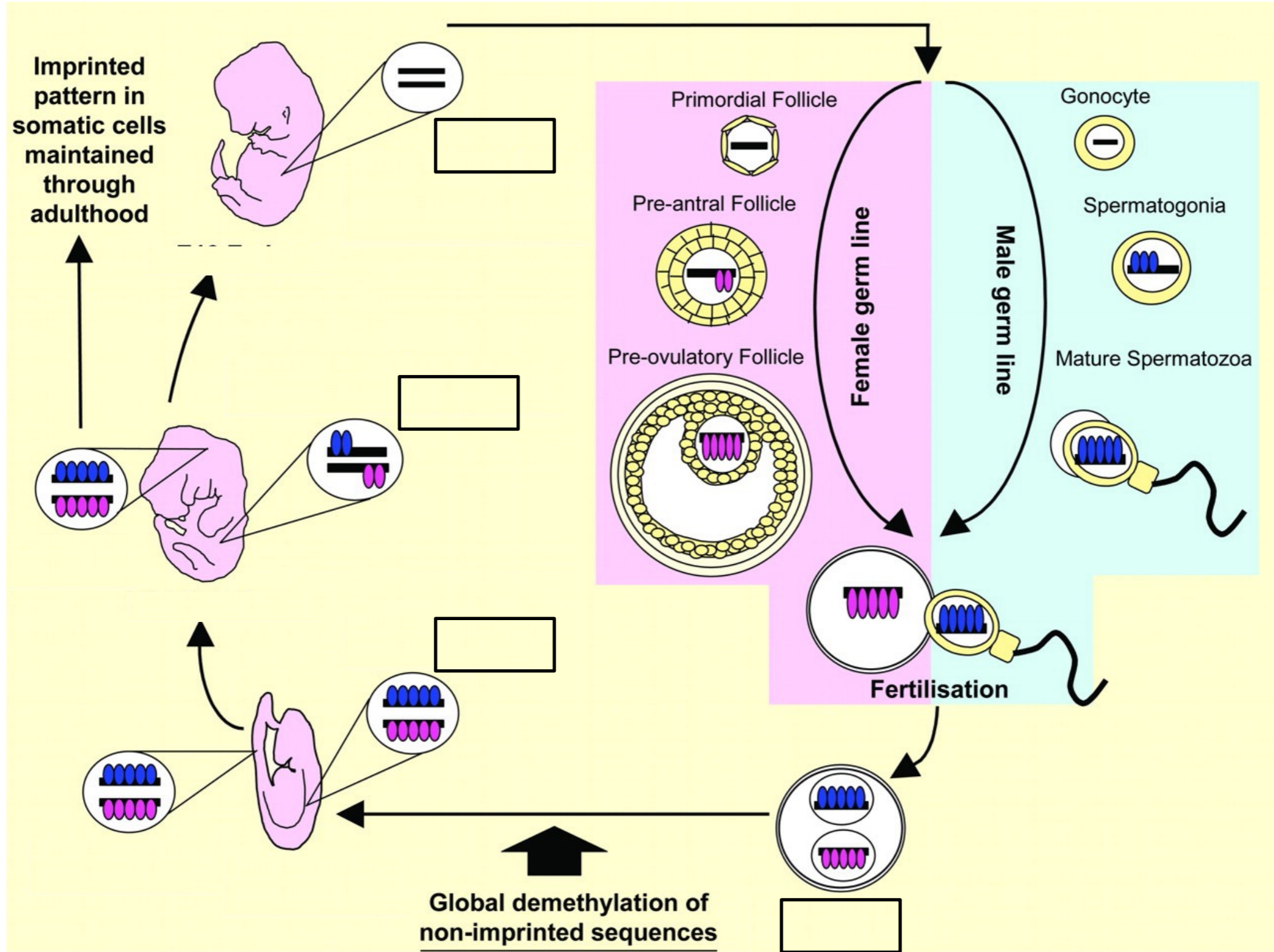


**UNIT-III**  
**Lesson work 1**

GROUP NUM



**Figure legend:**

The maternal (pink shaded region) and paternal (blue shaded region) imprints are laid down during germ cell development so that by the time the oocyte and sperm are fully mature the correct pattern of DNA methylation is present on the genome (female imprints, pink ovals; male imprints, blue ovals). After fertilization (yellow-shaded area), both parental genomes undergo global demethylation of non-imprinted sequences: imprinted genes are protected from this process. During early embryo development the imprinted genes of both the somatic and PGC retain the parental imprints. From E11.5 the primordial germ cells begin to undergo demethylation to erase the inherited parental imprints, but the somatic cells of the embryo maintain the parental imprints through embryo development and into adulthood. The process of PGC demethylation is complete by E13. Subsequent reprogramming of the germ cells occurs when the gender-specific imprinting patterns are once more laid down.

**Reply to these sentences:**

- 1. Specify in the empty box to which cell type and or cell event each representation refers**
- 2. Try to resume the dynamic of DNA methylation in both the foetal and the post natal stage**