**ORIOLA ENIOLA PRECIOUS 18/MHS01/316**

**MBBS**

**EMBRYOLOGY ASSIGNMENT**

**THE SECOND WEEK OF HUMAN DEVELOPMENT**

\*The second week of development takes place in three main stages which are;

-Completion of implantation

-Formation of the bilaminal germ disc

-Formation of extra embryonic structures

**DAY 8**

**Completion of implantation**

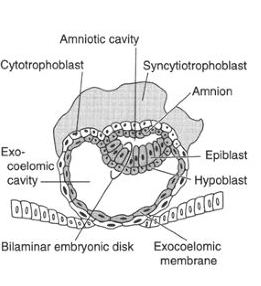
The blastocyst is partly embedded in the endometrium of the uterus.

\*The syncytiotropoblast continues to enroll the endometrium while the cytotropoblast divides and migrates towards the syncytiotropoblast.

\*A fluid cavity is formed called the amniotic cavity.

\*The inner cell mass (embryo blast) differentiates into two layers, one cuboidal layer called hypoblast and one columnar layer called epiblast.

**Formation of the bilaminal germ disc**

\*The hypoblast and the epiblast fuses to form the bilaminal germ disc, the epiblast lies close to the amniotic cavity and the hypoblast lies near the blastocystic cavity. 

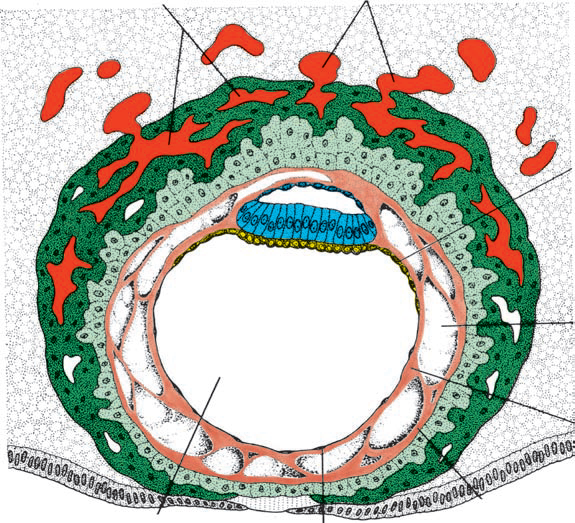
**Formation of extra embryonic structures**

**DAY 9**

\*The blastocyst is deeply embedded in the endometrium of the uterus.

\*The surface epithelium is covered by fibrin coagulum.

\*A cavity is formed called the exocoelomic cavity enclosed by an exocoelomic membrane aka primary yolk sac/primary umbilical vesicle.

\*A trophoblastic lacunae is formed.

**DAY 10-12**

\*The blastocyst is totally embedded in the endometrium of the uterus.

\*Ruptured capillaries called sinusoid locates the lacuna and supplies blood to the lacuna through uteroplacenta circulation.

\*There is formation of a mesodermal cavity known as extra embryonic cavity which covers the inner surface except the connecting stalk portion.

\*The extra embryonic cavity is divided into two; the embryonic somatic mesoderm located proximally and the extra embryonic splanchnic mesoderm.

\*A reaction called the decidual reaction takes place in the embryo called decidual reaction (accumulation of glycogen and lipid in their cytoprotein) to provide nutrition for the embryo for immunity.

**DAY 13**

\*A syncytium is formed (a covering formed by a cellular column called primary villi)

\*The primary yolk sack reduces to form the secondary yolk sack

\*The portion of the exocoelomic cavity form a cyst called the exocoelomic cyst 