

## "Second Week of Development"

### 《 Day 11-12 》

- Blastocyst completely embedded in Endometrial stroma
- Trophoblastic cells erode the maternal capillaries called Sinusoids: are congested and dilated

### 》 Extraembryonic Mesoderm:

- Yolk sac cells form a membrane between Cytotrophoblast (externally) and amnion + exocoelomic membrane (internally)

- Two subdivisions:

1) Extraembryonic Somatic Mesoderm: Lines Cytotrophoblast + Amnion

2) Extraembryonic Splanchnic Mesoderm: Lines Yolk sac

- This division occurs due to the formation of a cavity in Extraembryonic mesoderm -> Extraembryonic cavity

» Embryoblast: Differentiated into two layers:

- 1) Cuboidal layer → Forms Hypoblast
- 2) Columnar layer → Forms Epiblast →  
Cavity within the epiblastic cells is called  
amnion

» Endometrial surface near the site of Implantation becomes:

- Highly vascular
- Edematous
- Large tortuous glands are present which secrete: Glycogen + Mucous



- Endometrium is further divided into:  
Functional layer + Basal Layer
- Functional Layer is further divided into:  
Spongy layer → Compact Layer

### ' Uterine Cycle: Stages: '

#### 1) Follicular or Proliferative Stage:

- Caused by: Estrogen from Theca Interna and Granulosa cells
  - Changes: Growth

#### 2) Secretory or Progestational Phase:

- Caused by: Progesterone from Corpus Luteum
- Changes: Large tortuous glands formed + Vascularity increases + Glycogen and Mucous production

### 3) Menatural Phase:

- Cause: No fertilization -> Corpus Luteum degenerates -> Corpus Albicans (scar tissue) formed -> Progesterone secretion decreased -> Positive effect on Uterus decreased -> Mensturation