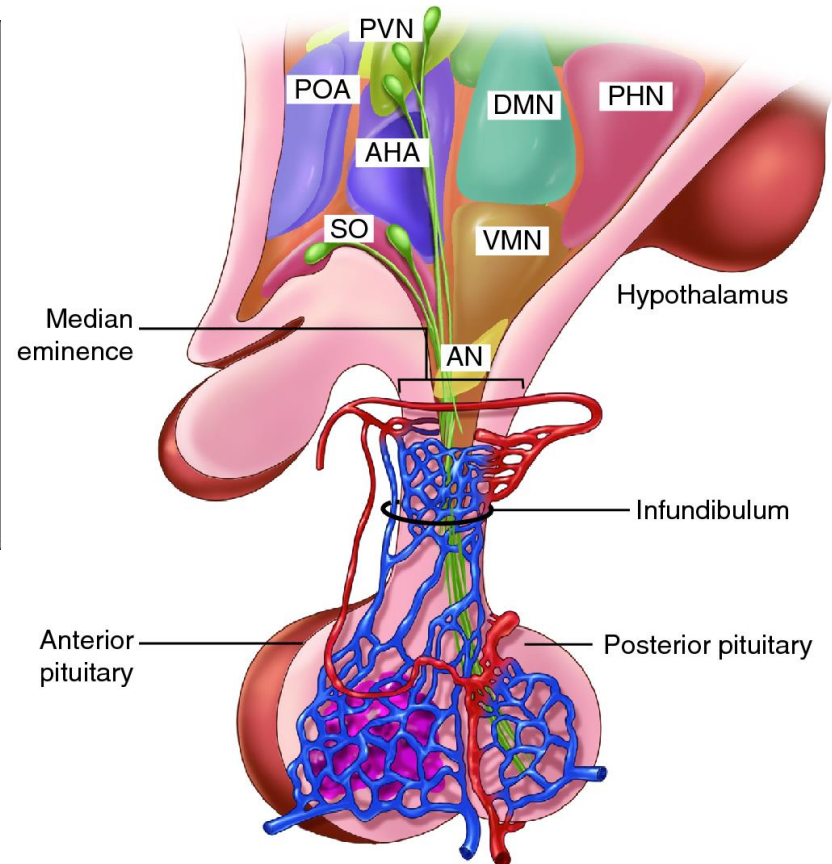
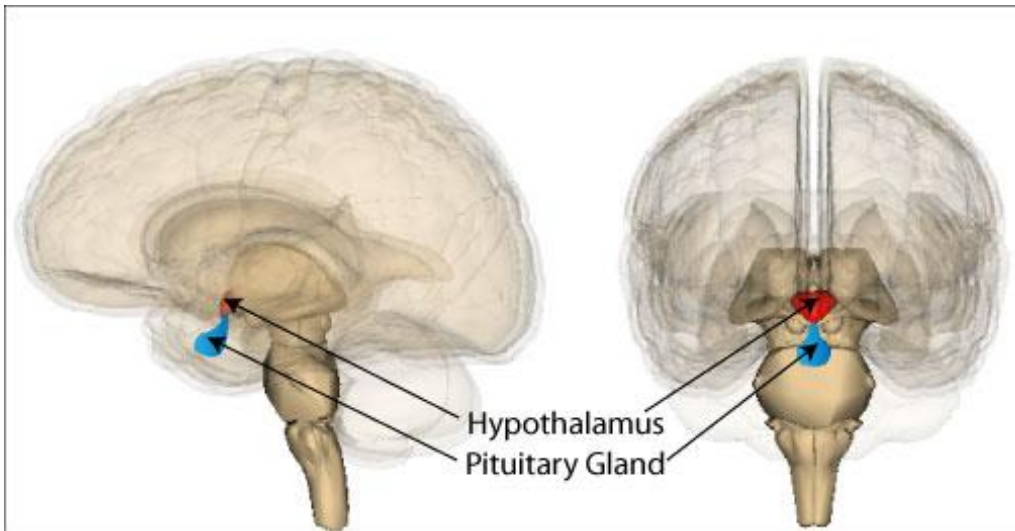


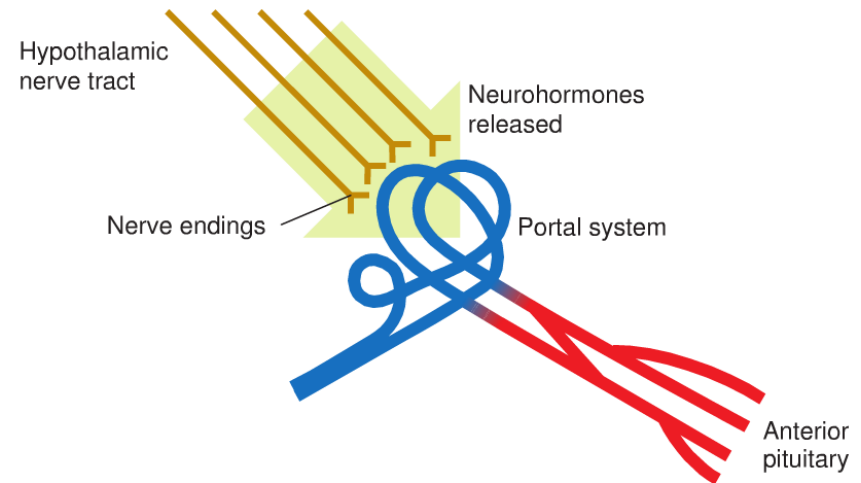
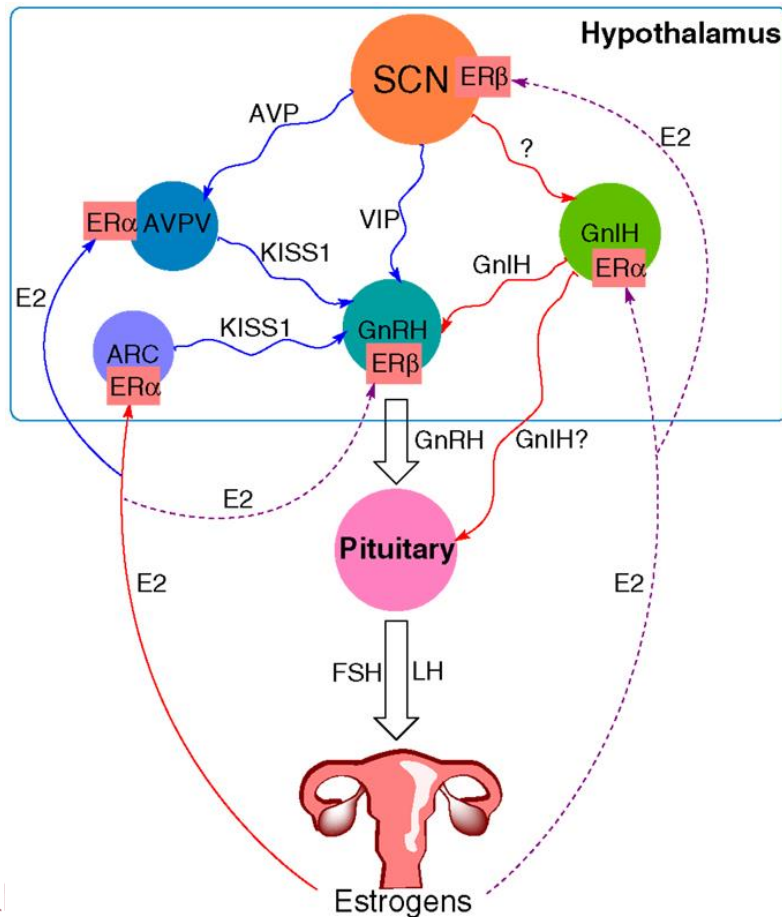
정상 생리주기:
(시상하부)-뇌하수체-난소-자궁 축

고려의대 산부인과
신 정 호

시상하부(Hypothalamus) – 뇌하수체 (Pituitary gland)



시상하부(Hypothalamus) – 뇌하수체 (Pituitary gland)



정상 생리주기의 시작: 사춘기

시상하부-뇌하수체-난소 축 (Hypothalamus-Pituitary-Ovary axis) 성숙

- ❖ 성호르몬에 대한 음성 되먹임 민감도:
사춘기 초기 감소
- ❖ 성호르몬에 대한 양성 되먹임 민감도:
사춘기 후기 증가 (H-P-O axis 성숙)

사춘기의 시작에 영향을 주는 요소들

- ❖ 유전
- ❖ 도시
- ❖ 잘 먹는, 비만
- ❖ 적도, 낮은 해발
- ❖ 빛 노출 (장님 소녀)
- ❖ 정신과적 문제 (?)



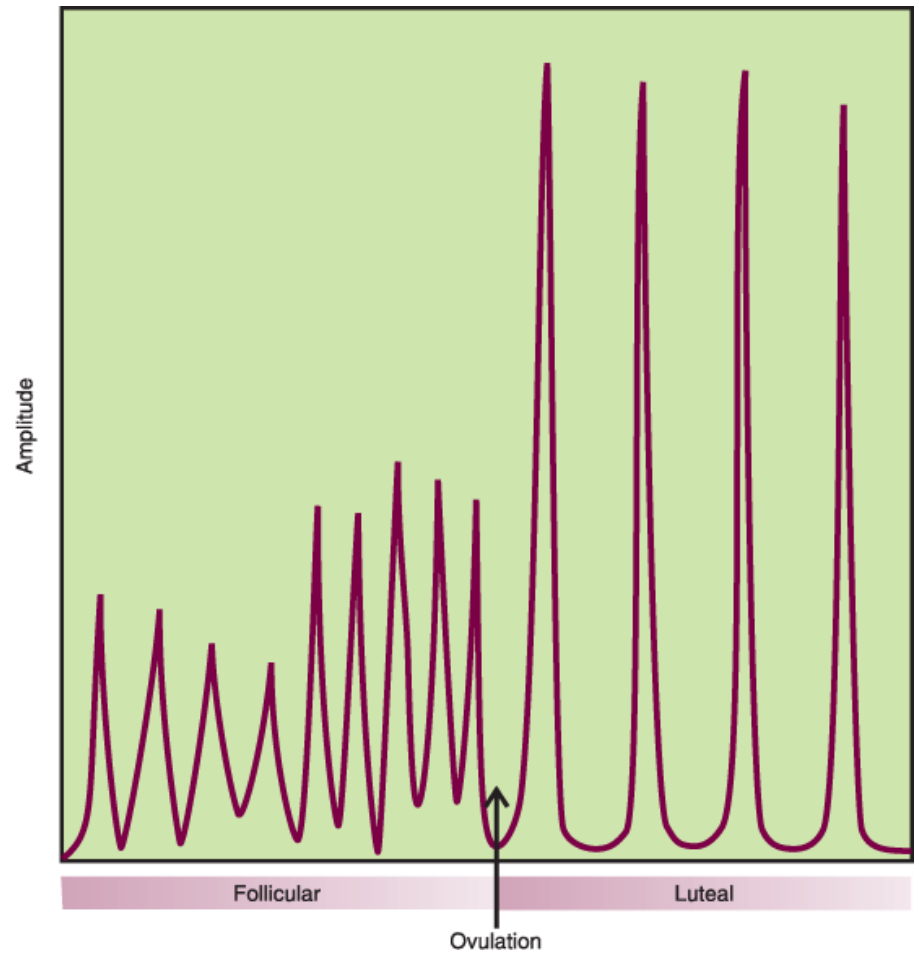
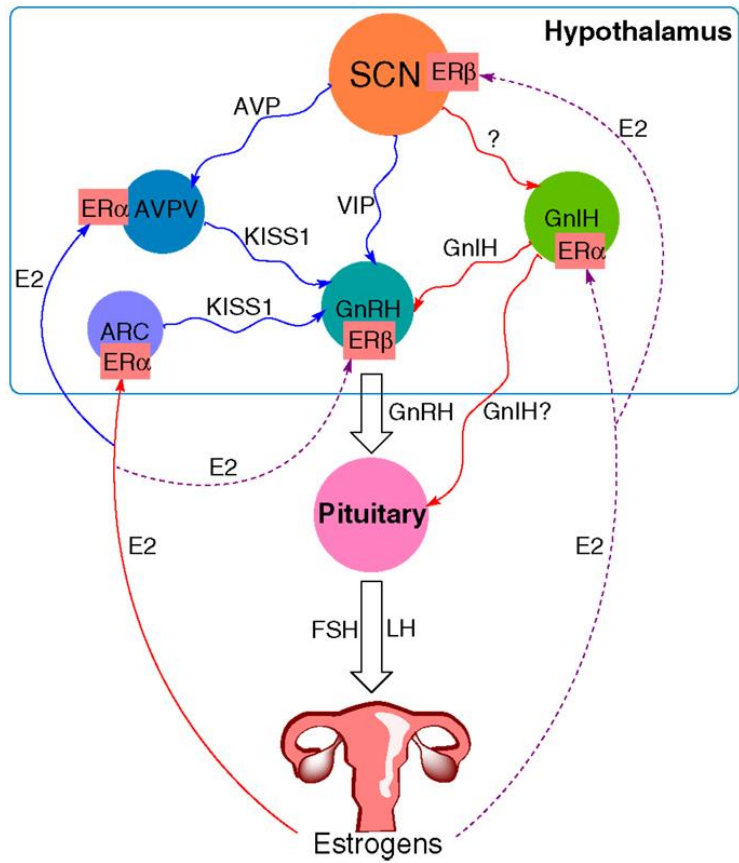
렙틴 (Leptin)

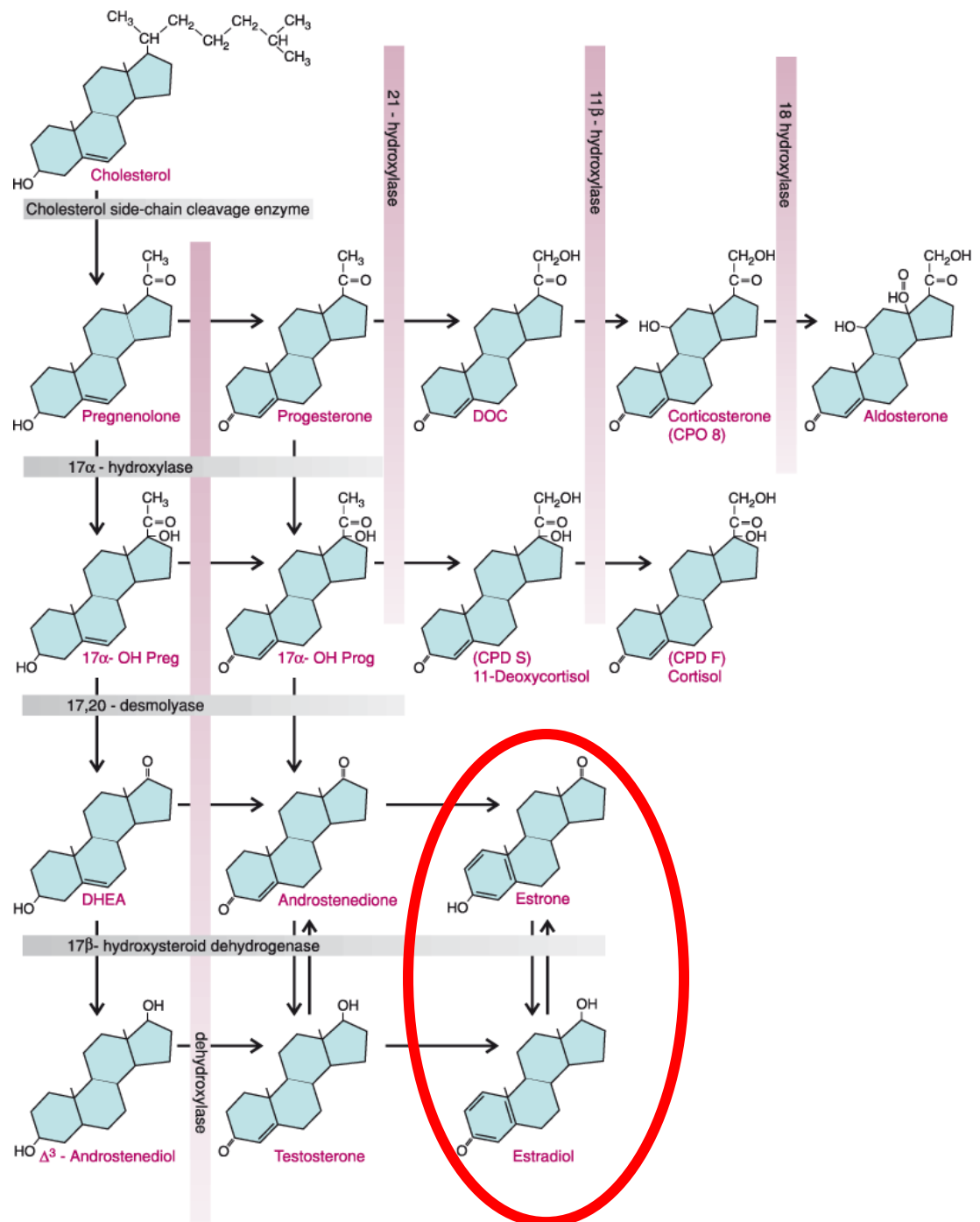
- ❖ 지방조직에서 합성, 분비
- ❖ 식욕의 조절
- ❖ 체지방량과 비례

- ❖ 동물실험
- ❖ 여성, 사춘기 여아
- ❖ 사춘기 남아... X

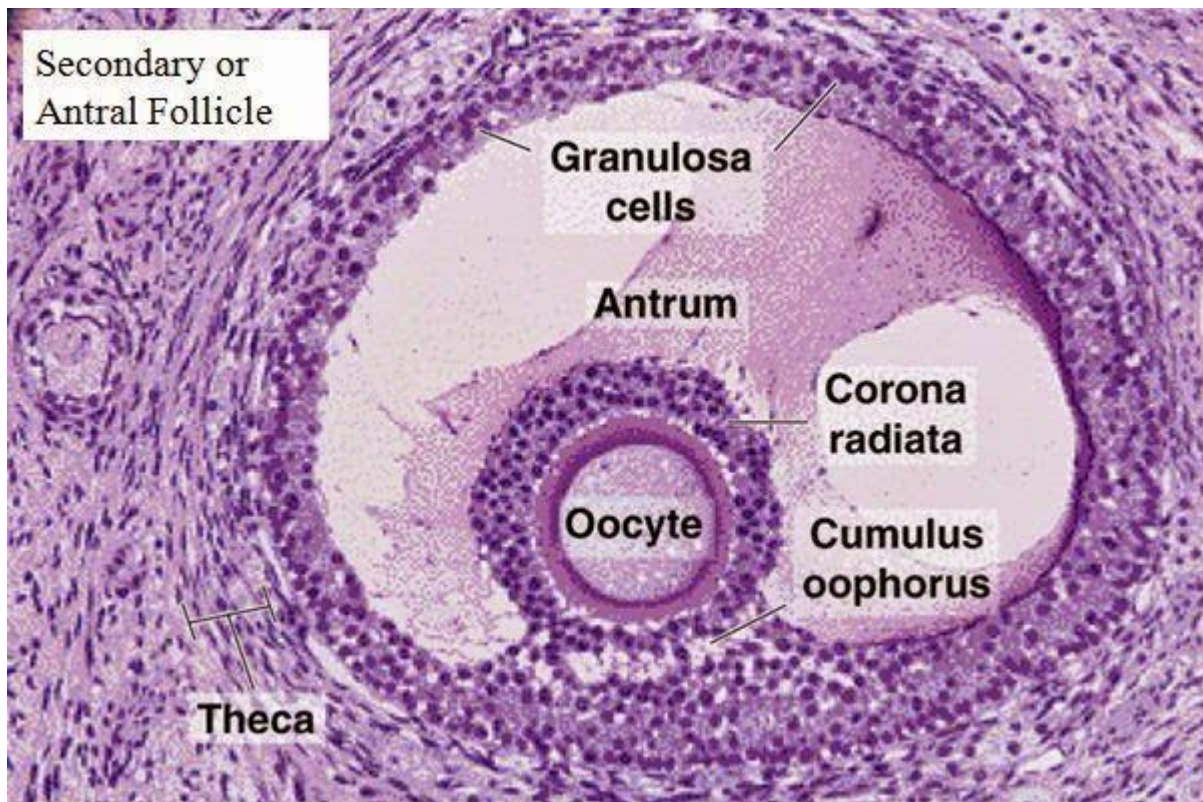
Delayed puberty

- ❖ 13세에도: 이차 성징 결핍
- ❖ 16세에도: 초경 없음
- ❖ 이차 성징 이후 5년 뒤에도: 초경 없음



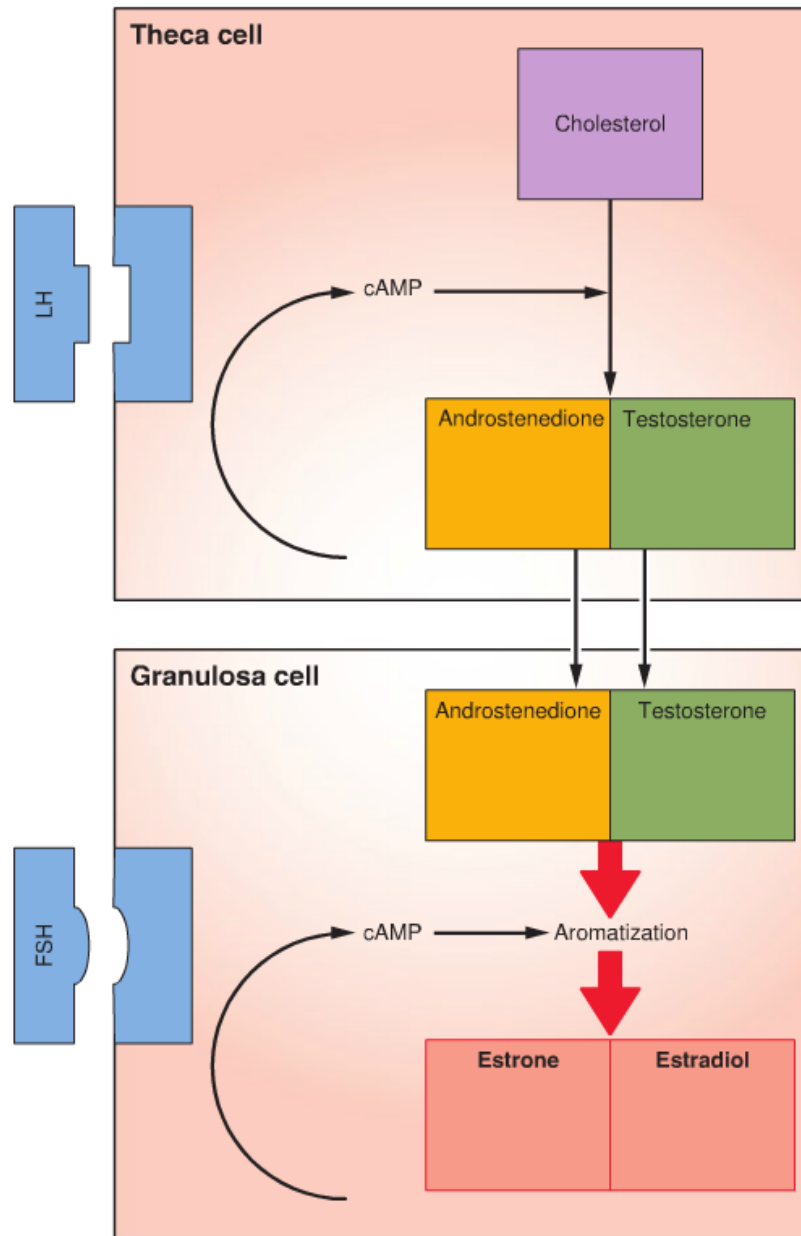
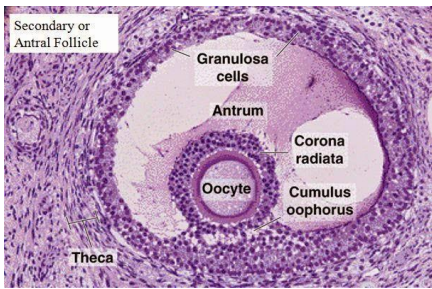


Gonadotropin (성샘자극호르몬) 합성이론



난포막세포
(Theca cell)

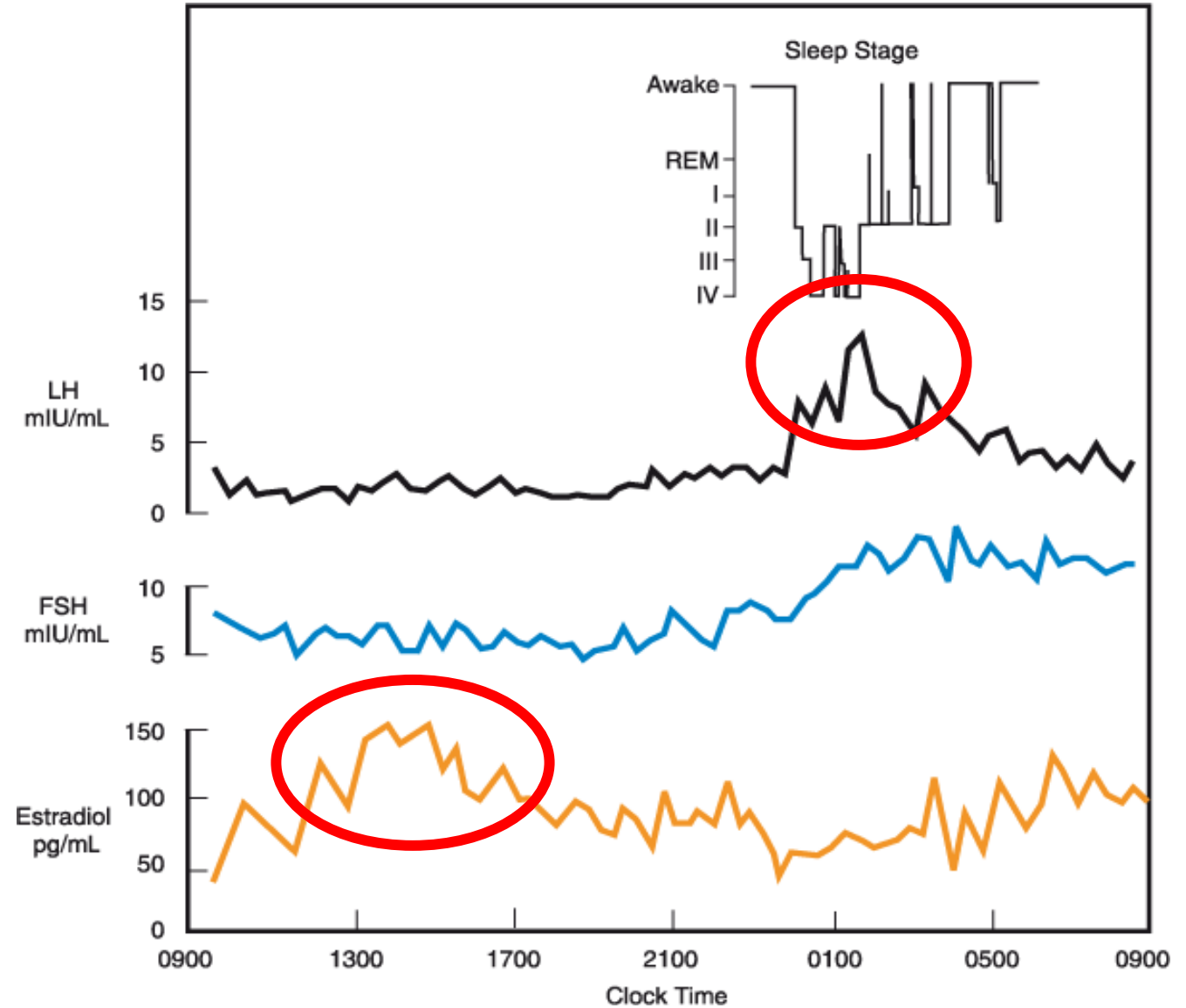
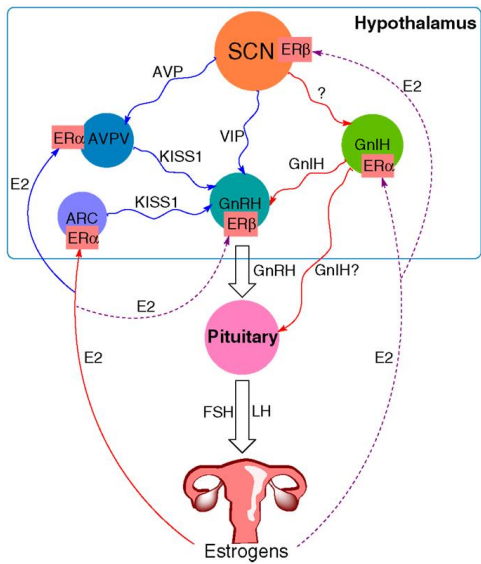
과립막세포
(Granulosa cell)

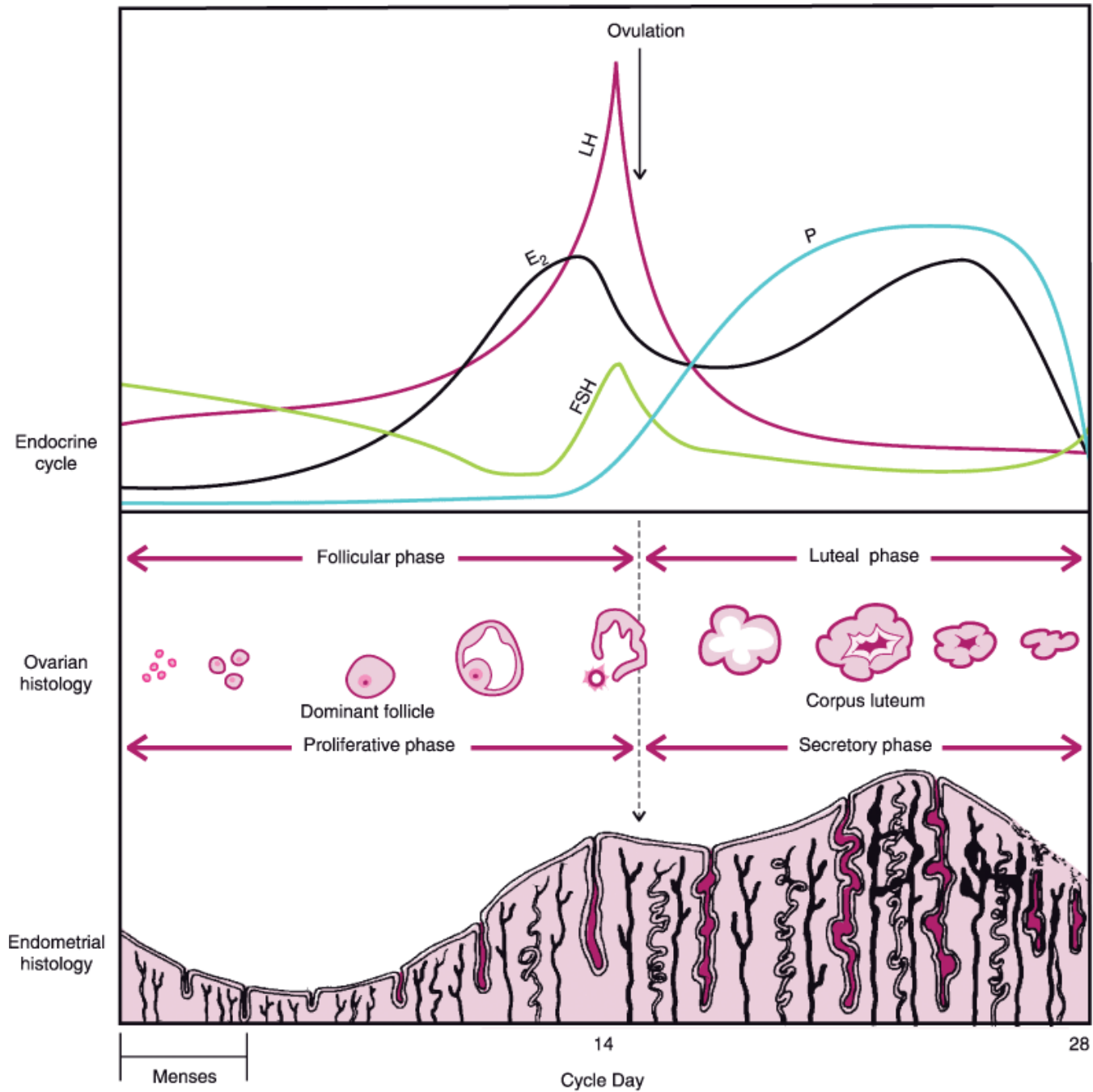


난포막세포
(Theca cell)

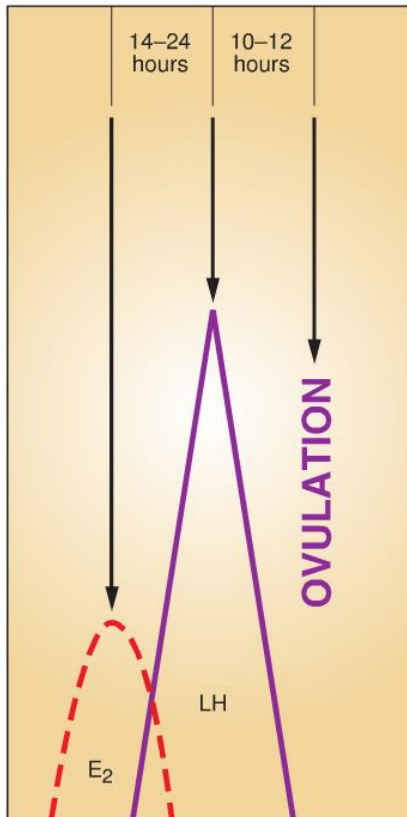
방향화 효소

과립막세포
(Granulosa cell)





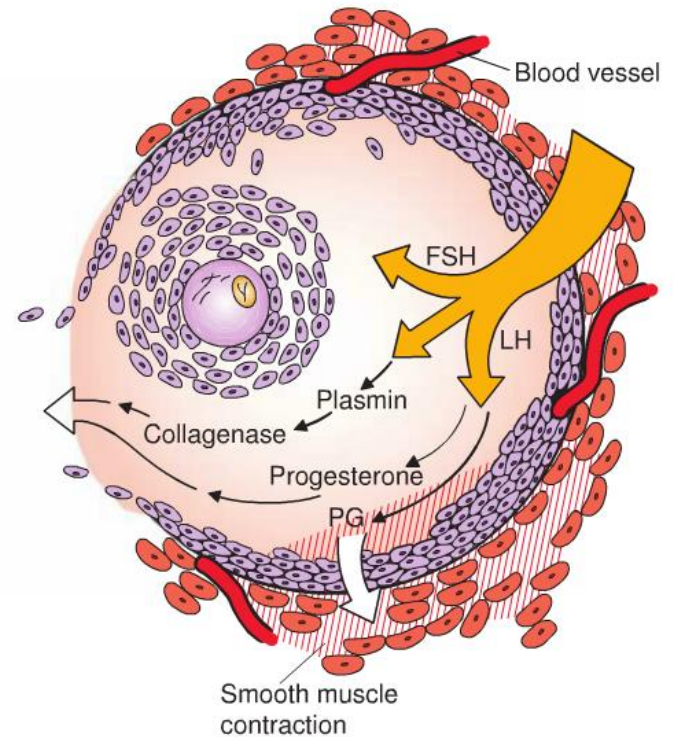
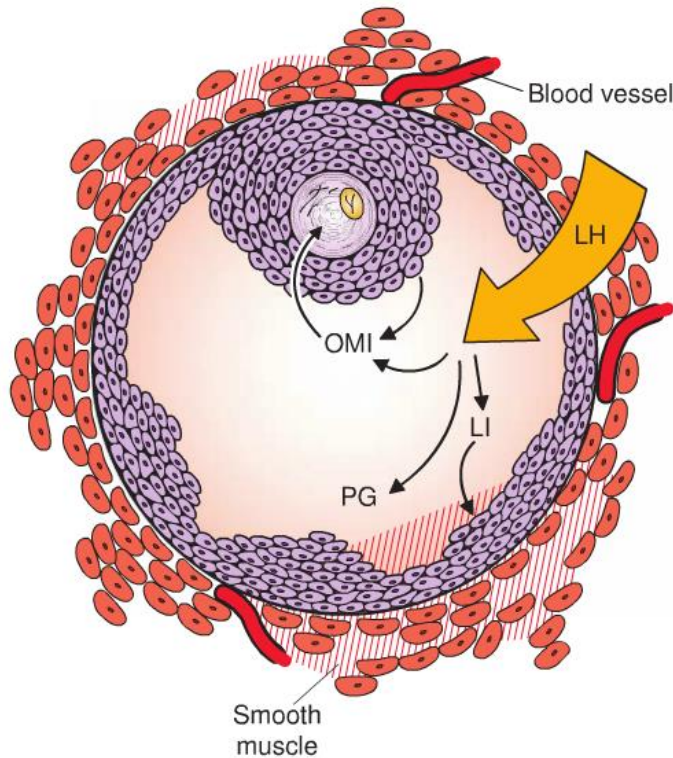
배란 (Ovulation)



- ❖ LH surge: 배란의 방아쇠.
- ❖ LH → cAMP 이동 (granulosa cell → oocyte)
- ❖ LH: 감수분열 완성 촉진

LH → cAMP 이동
(granulosa cell → oocyte)

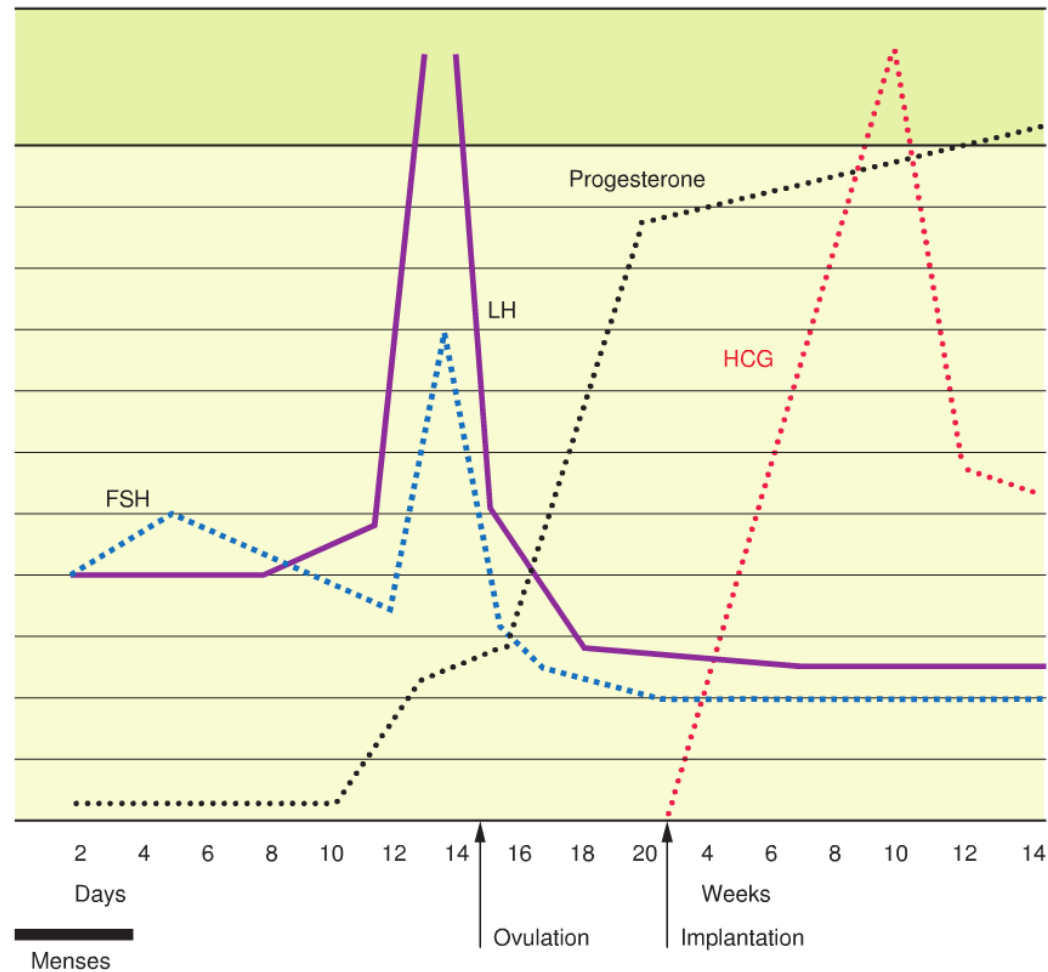
국소적인 Progesterone →
난포벽의 확장성.



OMI: 난포성숙 억제자
LI: 황체화 억제자

Plasmin, PGE2 → 단백질 분해 효소 분비.
PG → Smooth m 수축

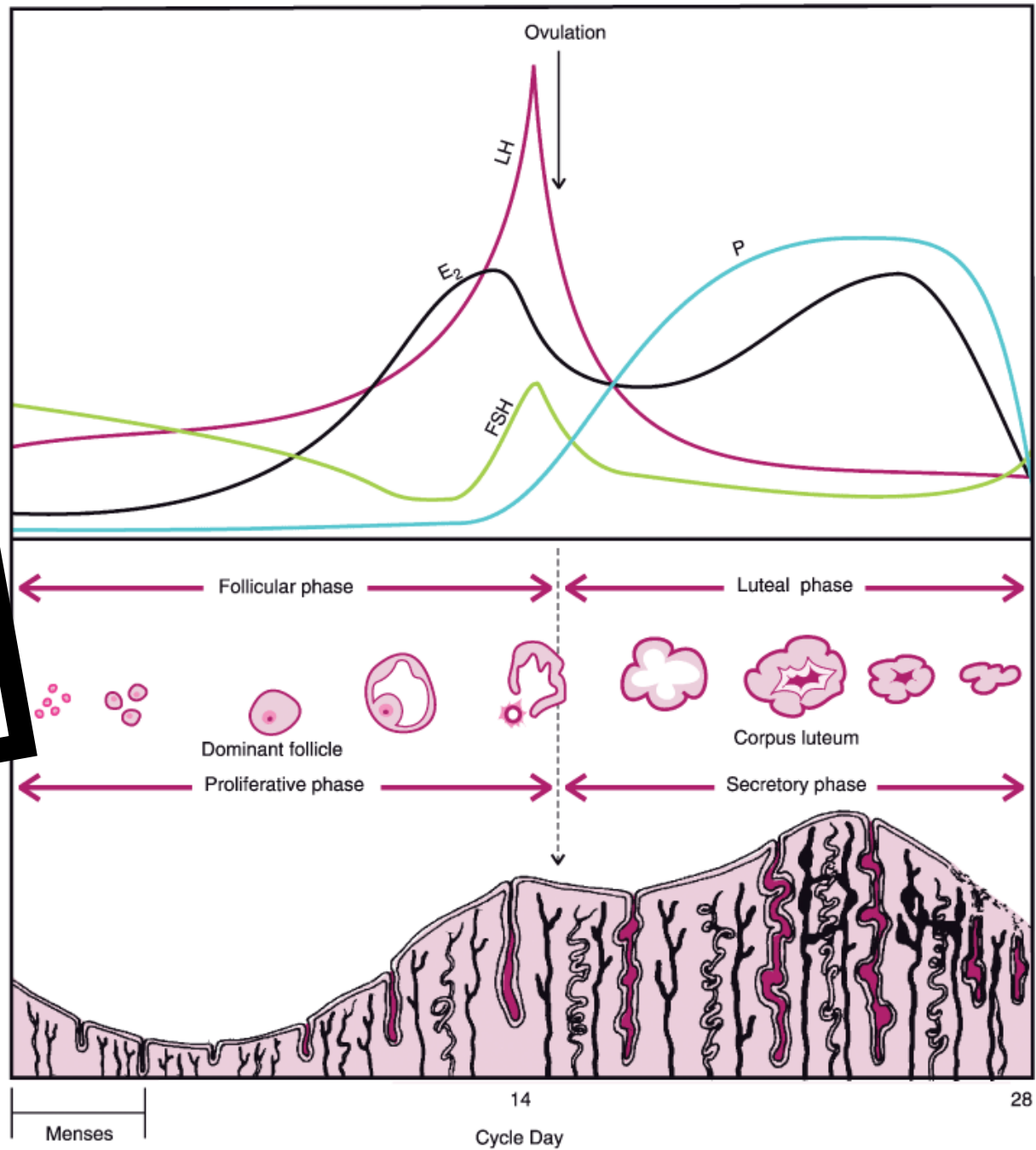
임신이 된다면?





Endocrine

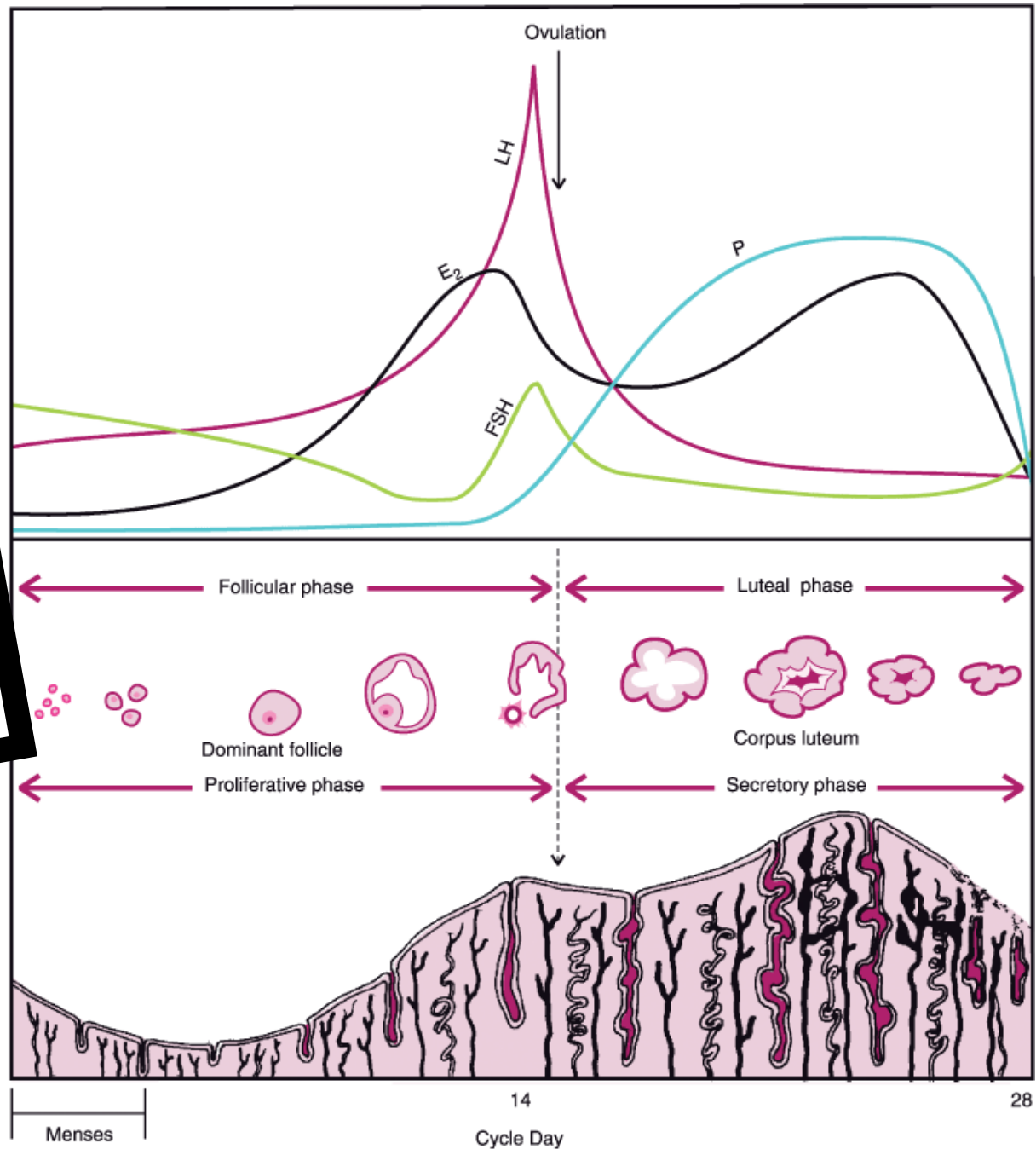
Endometrial histology

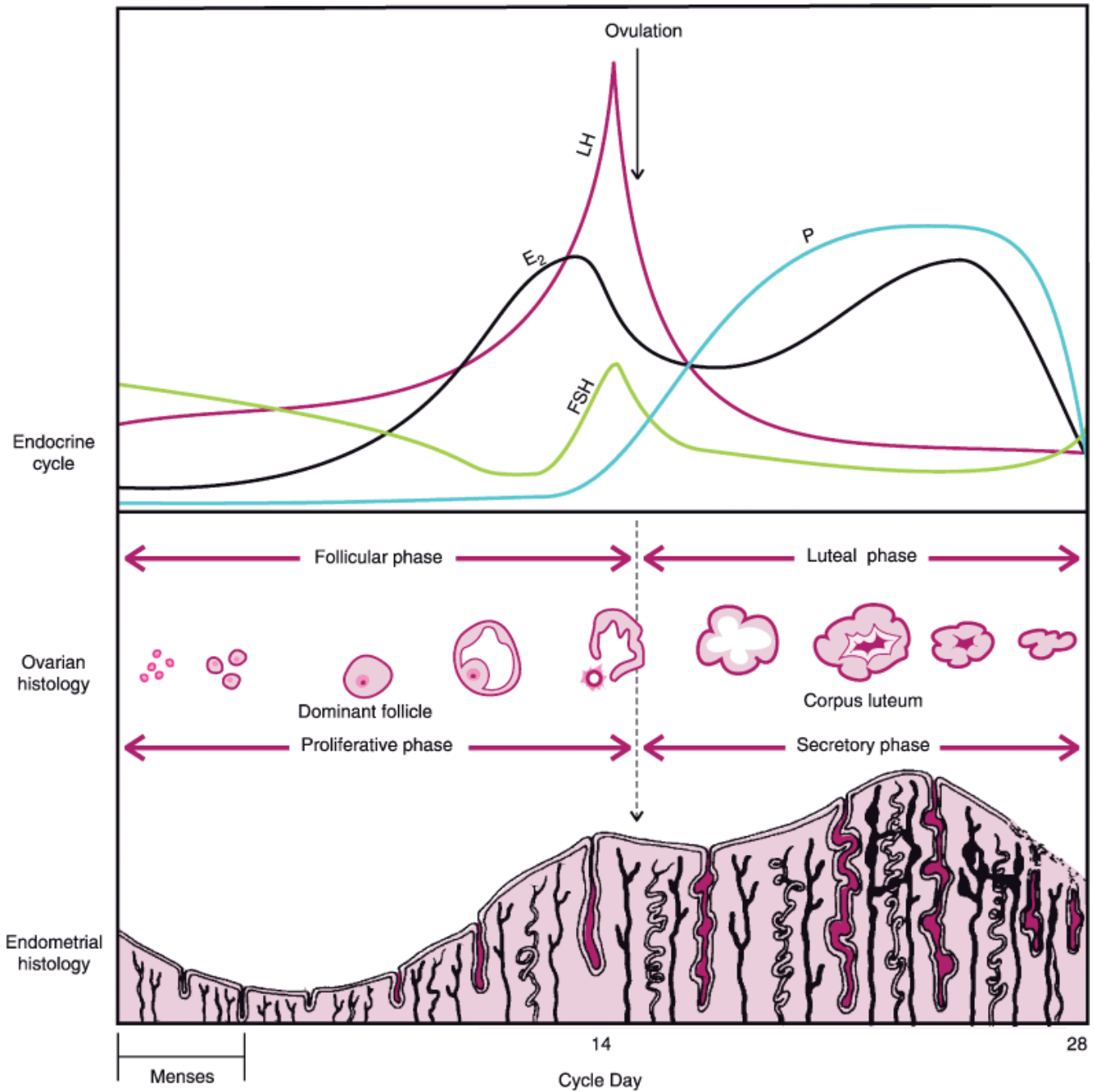




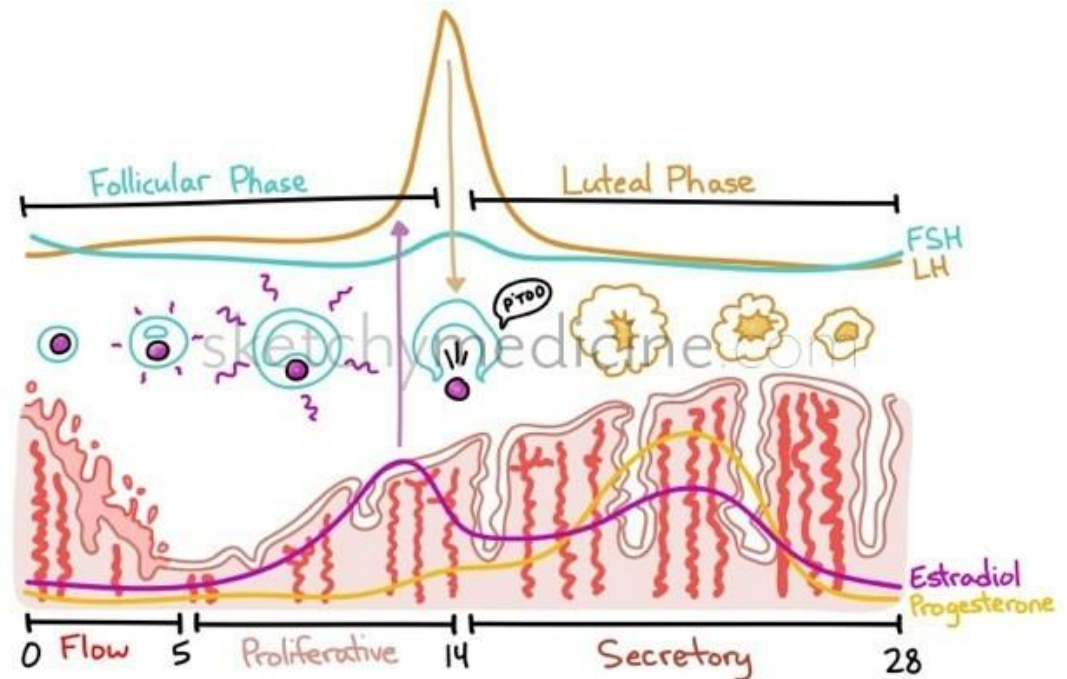
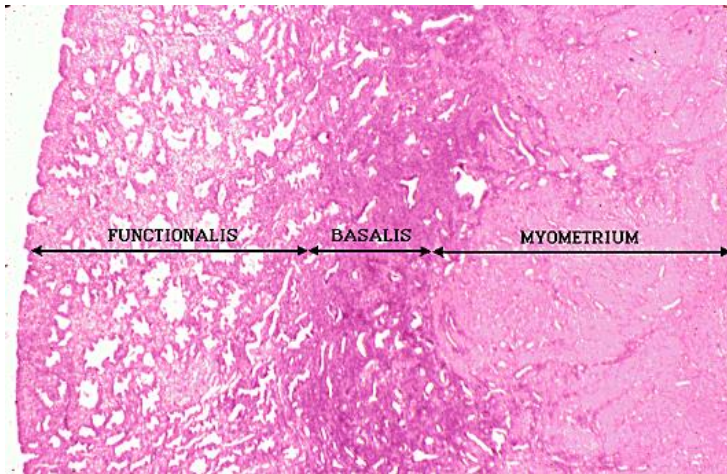
Endocrine

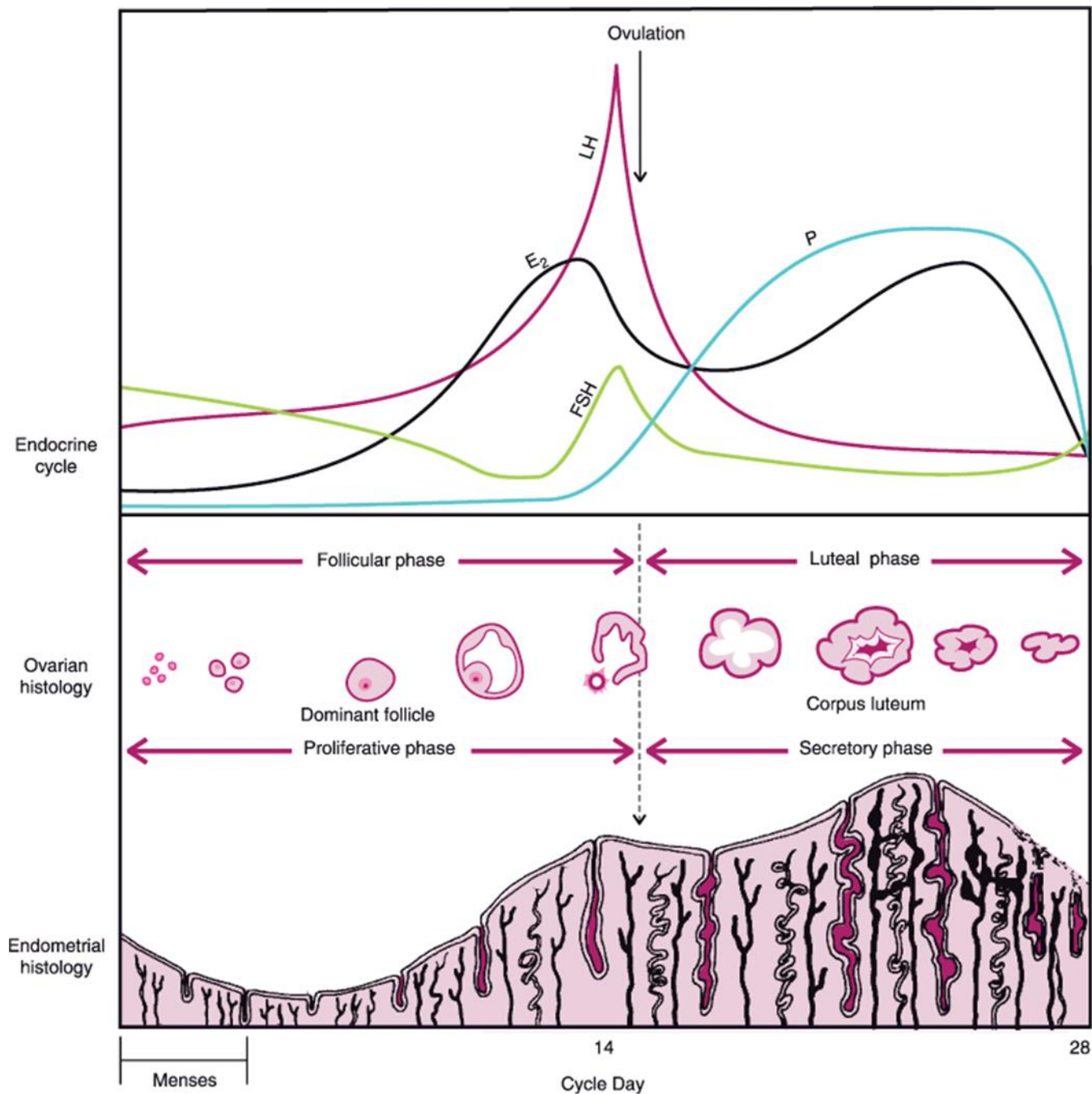
Endometrial histology





자궁 내막 (Endometrium)





월 경

- ❖ 자궁내막의 기능층
- ❖ PGF2a
- ❖ 여성호르몬의 감소
- ❖ 나선형 동맥 (spiral a) 수축 → 허혈 (Ischemia)
- ❖ 20~60ml, <7일





Thank You for Your Attention !