(5) CORPORA ALLATA

1. Situated laterally behind brain, close to aorta.
2. Origin ectodermal.
3. Usually paired but in some like hemiptera – fused
4. In Apterigota and Ephimeroptera, CA are innervated by suboesophageal ganglion, in some others, supplied by cerebral hemisphere. Such nerves called NCA (central nerve
5. CA, ↑ in size, in older insects size may go down.
6. Active throughout the life.
7. Cells are irregular, homogenous cytoplasm, abundant lysosome, less conspicuous golgi body. Abundant SER are present from which lipid droplets are desired.
8. CA produces Juvenile hormone which is of 4 types. JH 0, JH I, JH II, JH III and so on.
9. JH are chemically terpenoid related esters of tridecadienoic acid.
10. In immature stages, it is requiered for maintenance of juvenile.

In adults, it is h/a reproductive hormone (in female particularly). On removal of CA, ~~synthesis~~ prodn is stopped

In males, CA causes prodn of GnRH and also responsible for maintainance of accessory sex organ.

iii) Insures maintainance of PTH
iv) Break adult reproductive diapause
v) Modify epigenic behavior / coccon formation
vi) Maintains polymorphism in termites.
vii) In Honey bee, development of queen
viii) In Locust, if JH is given they become solitarious (gene gregarious.

Ecdysone

Phytoecdysone
- produced by plant

Zooecdysone
- by animals.

- usually called JHA
  ↓
  Juvenile hormone analogue