

PG Semester IV

Paper EC - IB Unit - 2

classmate

Date \_\_\_\_\_  
Page \_\_\_\_\_

(1)

## Corpuscles of Stannius

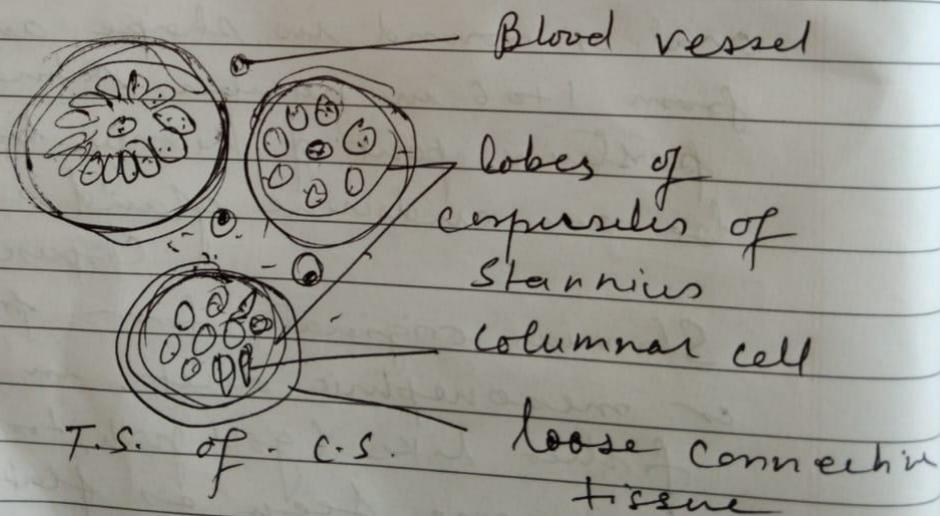
The corpuscles of Stannius were first described by Stannius in 1839 in the Kidneys of Sturgeon fish. These are discrete glandular bodies.

Corpuscles of Stannius are small nodular bodies which are partly or completely embedded in Kidney of body fish on its dorsal side, dorso lateral or ventrolateral sides. oval or round in shape and vary from 1 to 6 in number situated at posterior part of Kidney believed to be an endocrine gland.

Corpuscles of Stannius originate from pronephric or mesonephric duct. in some fishes like (gold fish, trout, salmon) they are seen as flat oval structures on peripheral surface of Kidneys.

Histologically each C.S. is composed of parenchymal cells arranged in the form of follicles or irregular

cords, separated by connective  
 tissue and surrounded by a  
 fibrous capsule. There are  
 two types of cells Type I and  
~~Type II~~ Type II. Type I cells are  
 more abundant which produces  
 calcium regulating factor.  
 Type II cells may be immature  
 or past secreting stage of Type I  
 generally responsible for Potassium  
 balance.



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Page \_\_\_\_\_

## Functions of Corpuscles of Stannius:

- ① The corpuscles of Stannius are the site of production of a hormone called stannocalcin, responsible for decreasing the blood circulating level of calcium, similar to parathyroid gland releasing calcitonin.
- ② Fishes obtain their minerals directly from the water along with their diet and these cells are responsible for balancing both calcium and potassium level in blood just like other vertebrates.