

Quadrant II- Transcript and Related Materials

Programme	: Bachelor of Science (Third Year)
Subject	: Zoology
Semester	: VI
Course Code	: ZOC 108
Course Title	: Developmental Biology
Unit	: 01-Introduction
Module Name	: Biochemical changes during Fertilization Part I
Name of the Presenter	: Dr. K.K.Therisa

Glossary of terms/words:

1. **Acrosome:** A membrane-bounded cap-like structure at the forwarding end of a spermatozoon. It contains proteolytic enzymes, has a derivation from Golgi-complex, and functions to create a clear passage through egg-envelops and egg plasma membrane during fertilization process.
2. **Capacitation:** Capacitation is the penultimate step in the maturation of mammalian spermatozoa and is required to render them competent to fertilize an oocyte.
3. **Cleavage:** Rapid cycles of DNA synthesis followed by cell division in which the cytoplasm is partitioned without growth, occurring very early in embryonic development.
4. **Cortical reaction:** The cortical reaction is a process initiated during fertilization by the release of cortical granules from the egg, which prevents polyspermy, the fusion of multiple sperm with one egg.
5. **Decapacitating:** The prevention of capacitation by spermatozoa, and thus of their ability to fertilize egg cells.
6. **Fertilization cone:** The point where the sperm touches the plasma membrane of the egg the cytoplasm of the egg bulges to form a cone-like structure known as fertilization cone which retracts the nucleus and mid piece of the sperm inside the egg.

7. **Hyaluronidase:** Hyaluronidases are a family of enzymes that catalyse the degradation of hyaluronic acid
8. **Sperm-lysin:** sperm lysins are some of the enzymes secreted by the sperm head when it encounters with the ovum to be fertilised.