

## Henneguya Salminicola

 Scientists have discovered an animal Henneguya Salminicola which does not need oxygen to produce the energy needed for its survival.



- It is a tiny, less than 10-celled parasite which lives in the muscles of salmon fish.
- It does not not have a mitochondrial genome.
  - Mitochondria is the **"powerhouse"** of the cell, which captures oxygen to make energy.
  - Its absence indicates that the parasite does not breathe oxygen.
- It is a relative of jellyfish and corals and as it evolved, it gave up breathing and consuming oxygen or became anaerobic to produce energy.
- However, it is not yet clear how the parasite generates energy. It may be drawing it from the surrounding fish cells or it may have a different type of respiration such as oxygen-free breathing, which typically characterises anaerobic non-animal organisms like fungi, amoebas or ciliate lineages.
- The discovery bears enormous significance for evolutionary research.
  - **Aerobic respiration** was thought to be prevalent in animals but now it is confirmed that animals can survive with anaerobic respiration.

**Source: IE** 

PDF Reference URL: https://www.drishtiias.com/printpdf/henneguya-salminicola