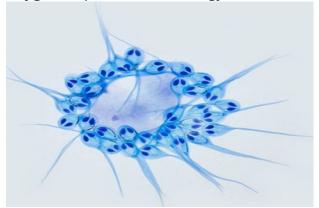


## Henneguya Salminicola

drishtiias.com/printpdf/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