

Thiomargarita magnifica, World's largest bacteria

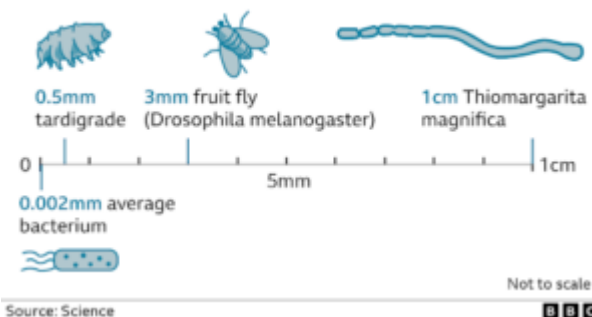
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In news— Scientists have discovered the world's largest bacteria that can be seen with the naked eye in the **French overseas territory of Guadeloupe in the Southern Caribbean Sea.**

About world's largest bacteri-

- The bacteria *Thiomargarita magnifica* is 5000 times larger than the average bacteria and it can grow up to 2 cm in length.
- In the test tube, the bacteria looks like white eyelashes and specialist 3D microscope images have proved that the entire filament is indeed a single cell.

How does the big bacterium compare?



- The researcher first spotted the strange filaments in a patch of sulphur-rich mangrove sediment in 2009.
- Techniques including electronic microscopy revealed it was a bacterial organism.
- Normally, a bacterium's DNA floats freely in the cell but in the giant species, it is compacted in small structures surrounded by a membrane.
- *T. magnifica*, on the other hand, stores its genetic material in compartments, which the researchers are calling **pepins**, from the French for fruit seeds.

- It's a significant revelation because until now, the packing of DNA inside a membrane-bound compartment was considered the preserve of so-called eukaryotic cells, which are the building blocks of higher organisms such as humans, other animals and plants.