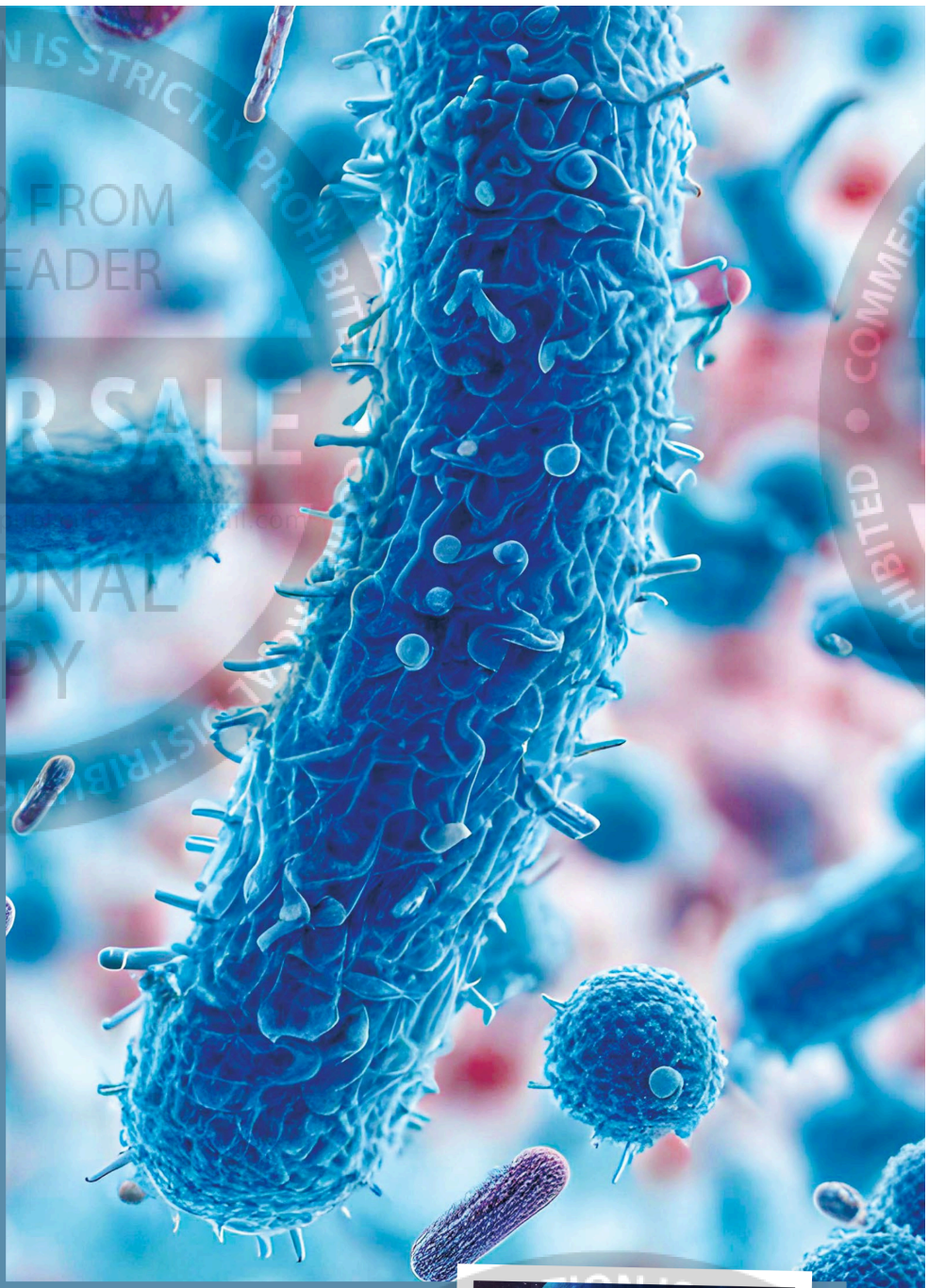
- Viruses / Bacteria

How do viruses and bacteria differ?

Viruses and bacteria can both cause disease, but they are radically different when it comes to their structure, reproduction and just about anything else. Bacteria are made up of just one basic cell possessing DNA, cell walls, ribosomes and cytoplasm. Viruses are tiny in comparison, simply consisting of a strand of genetic information (either DNA or RNA) encased in protein. In this sense, viruses aren't considered to be living things. Bacteria reproduce asexually, dividing into two identical cells. Viruses, meanwhile, multiply by infiltrating their host's cells and tricking them into producing copies of the virus. Viral infections are harder to cure since the virus is taken up inside the patient's cells, while bacterial infections can usually be treated with antibiotics.



WHY ARE WINDS ON NEPTUNE AND URANUS SO FIERCE?

Part of the driving force is probably their fast rotation speeds. Both planets are about four times the diameter of Earth, but spin on their axis once in 16 (Neptune) and 17 (Uranus) hours, which generates huge Coriolis forces along bands parallel to their equators. The winds on Neptune are the strongest in the Solar System, reaching up to 1,305 miles per hour, and those on Uranus are similarly fierce, but these are the two farthest planets from the Sun, and so receive the least heat to drive weather. In addition, Neptune seems to have some powerful internal energy source that helps power its winds – one idea is that this may come from liquid methane condensing to form diamonds around the planet's core.



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