

What are Obelisks?

February 4, 2024 • vajiramandravi.com



About Obelisks:

- It is a newly discovered class of **virus-like entities present in the human body**.
- It comprises a **class of diverse RNAs that have colonized** and gone unnoticed in **human and global microbiomes**.
- Named after the **highly symmetrical, rod-like structures** formed **by their twisted lengths of RNA**, the Obelisks' **genetic sequences are only around 1,000 characters** (nucleotides) in size.
- These mysterious bits of genetic material **have no detectable sequences** or even **structural similarities** known **to any other biological agents**.
- They're also **significantly larger than other genetic molecules** that coexist inside cells, from plants to bacteria, called plasmids, which are more commonly composed of DNA.
- Obelisks **represent their own class of organism**. They lie somewhere **between viruses and viroids**.
- Although the hosts of other obelisks remain unknown, there is a possibility that **some of them may be found in bacteria**.
- **Different types** of Obelisks **appear to be present indifferent areas of our bodies**.

What are Viroids?

- Viroids are **tiny loops of RNA**, a genetic cousin of DNA, and they've been **found to infect primarily plants**.
- Viroids **differ from larger, RNA-based viruses** in several ways.

o First, **they're naked, lacking the protective shells** that viruses use to hold their genetic material.

o Second, their **RNA doesn't contain instructions to build proteins**; whereas viruses carry instructions for their outer shells and for certain enzymes they need to replicate, viroids co-opt these enzymes from their hosts.

Q1: What is DNA?

The deoxyribonucleic acid is a molecule found in the cells of all living organisms. It serves as the genetic blueprint for the development, functioning, growth, and reproduction of living organisms. DNA carries the instructions necessary for the construction and regulation of the various components of an organism, from proteins to cells and entire organisms.

Source: [Mysterious virus-like 'Obelisks' found in the human gut and mouth](#)

Source: <https://vajiramandravi.com/current-affairs/what-are-obelisks/>

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