

An underwater scene with a blue background. In the top left, three clownfish with orange and white stripes are swimming. Several light blue bubbles of different sizes are floating around. The text is centered in the upper half. In the bottom right, a large purple virus-like particle with a long, wavy tail and small dots on its body is shown. The bottom of the image is filled with various colorful coral reefs, including purple, orange, and green species, and a red starfish is visible in the bottom left corner.

GIANT OCEAN VIRUS WITH THE LONGEST "TAIL" EVER SEEN DISCOVERED

In the Pacific Ocean, scientists found a **giant virus** that infects a tiny marine plankton called a **dinoflagellate** (*Pelagodinium*).

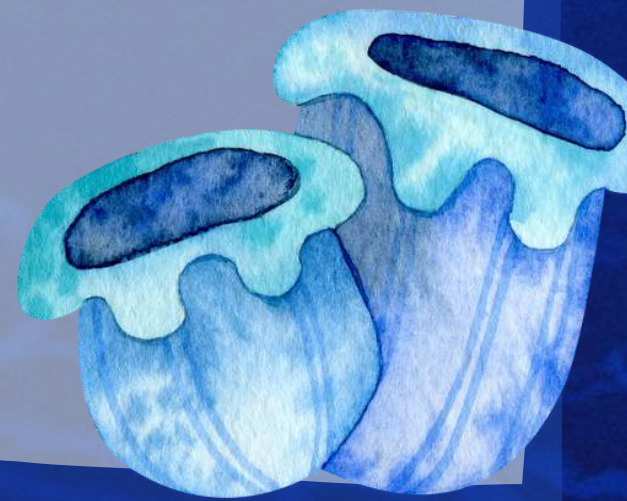
DINOFLAGELLATES ?

WHAT?!

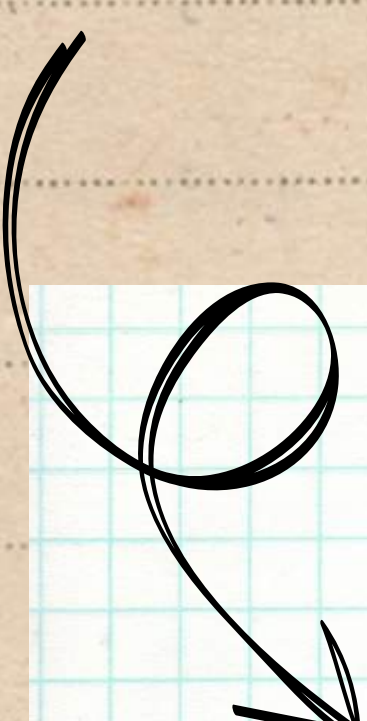


Dinoflagellates are tiny ocean plankton that help support marine life and are known for their role in algal blooms.

Dinoflagellate-infecting viruses are rare and not well-studied. Only two others have been found before, and not much is known about their genetic structure.



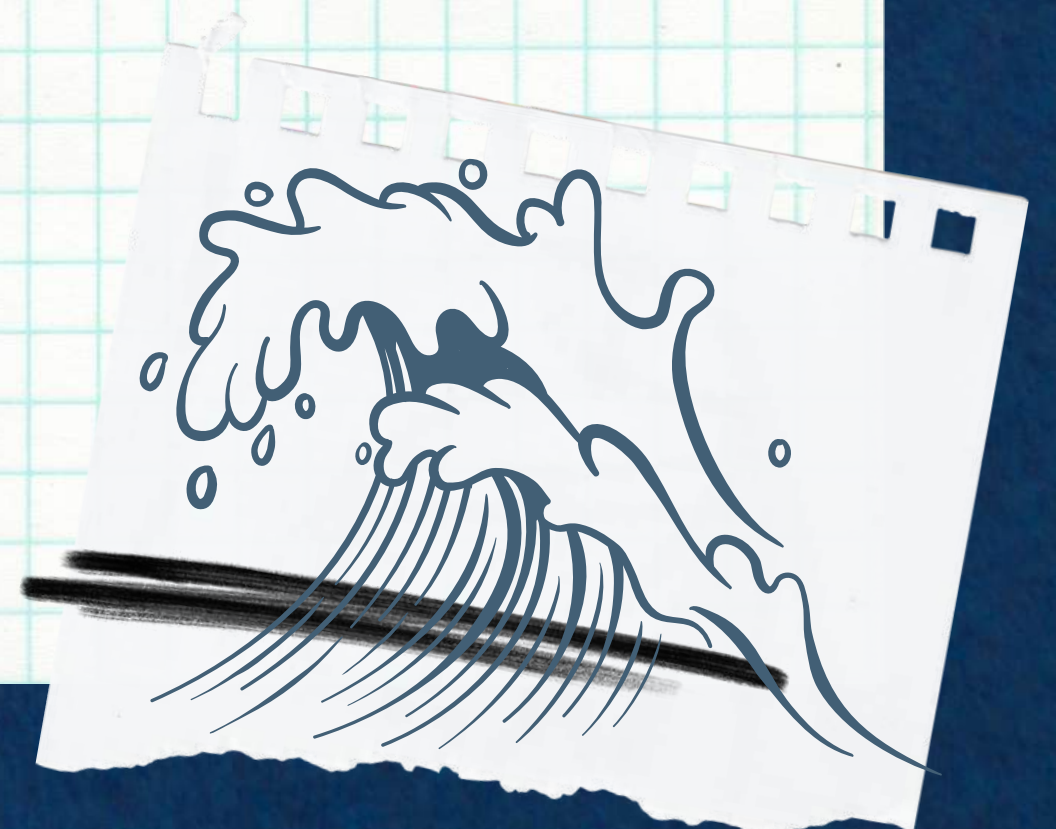
THE VIRUS

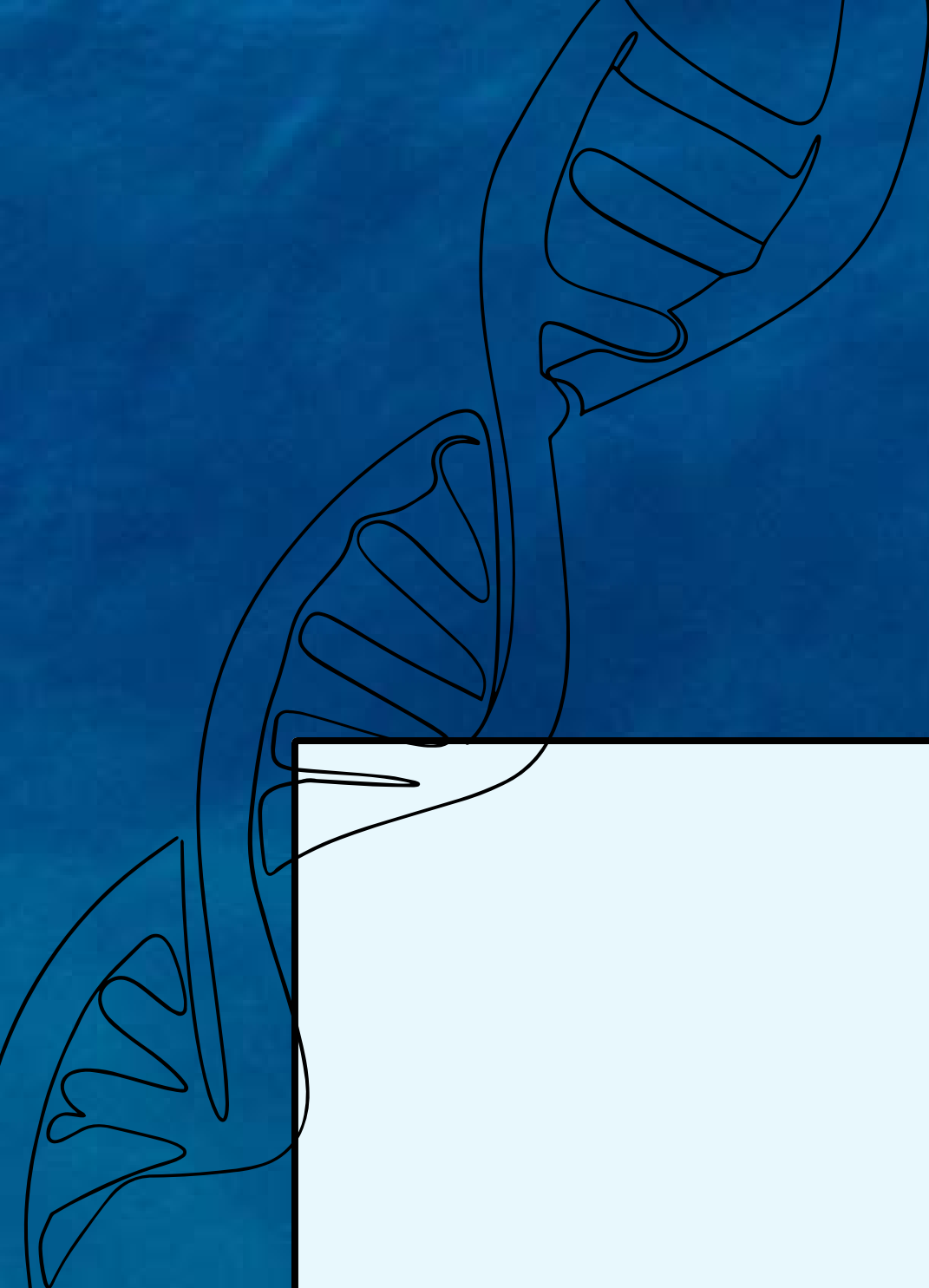


This virus, called **PelV-1**, has a shell about 200 nanometres wide and a very long, hair-like tail that can be over 2 micrometres long — that's the longest tail ever seen in a virus.

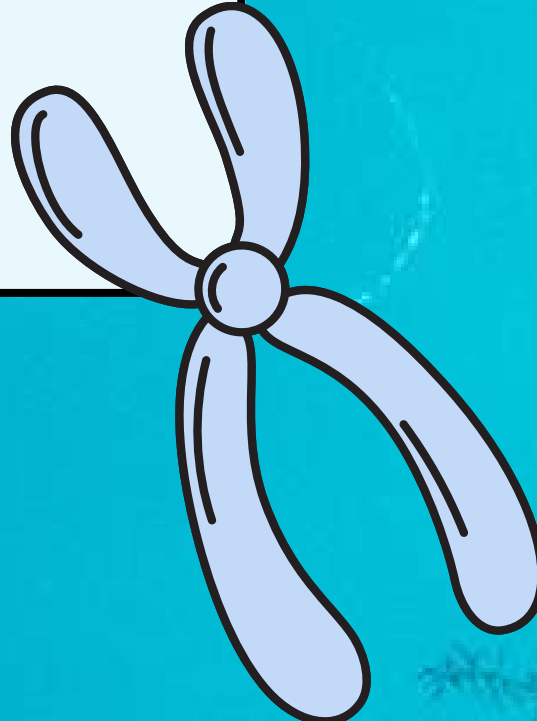
The virus also has a shorter, thicker “spike” on the opposite side of its head.

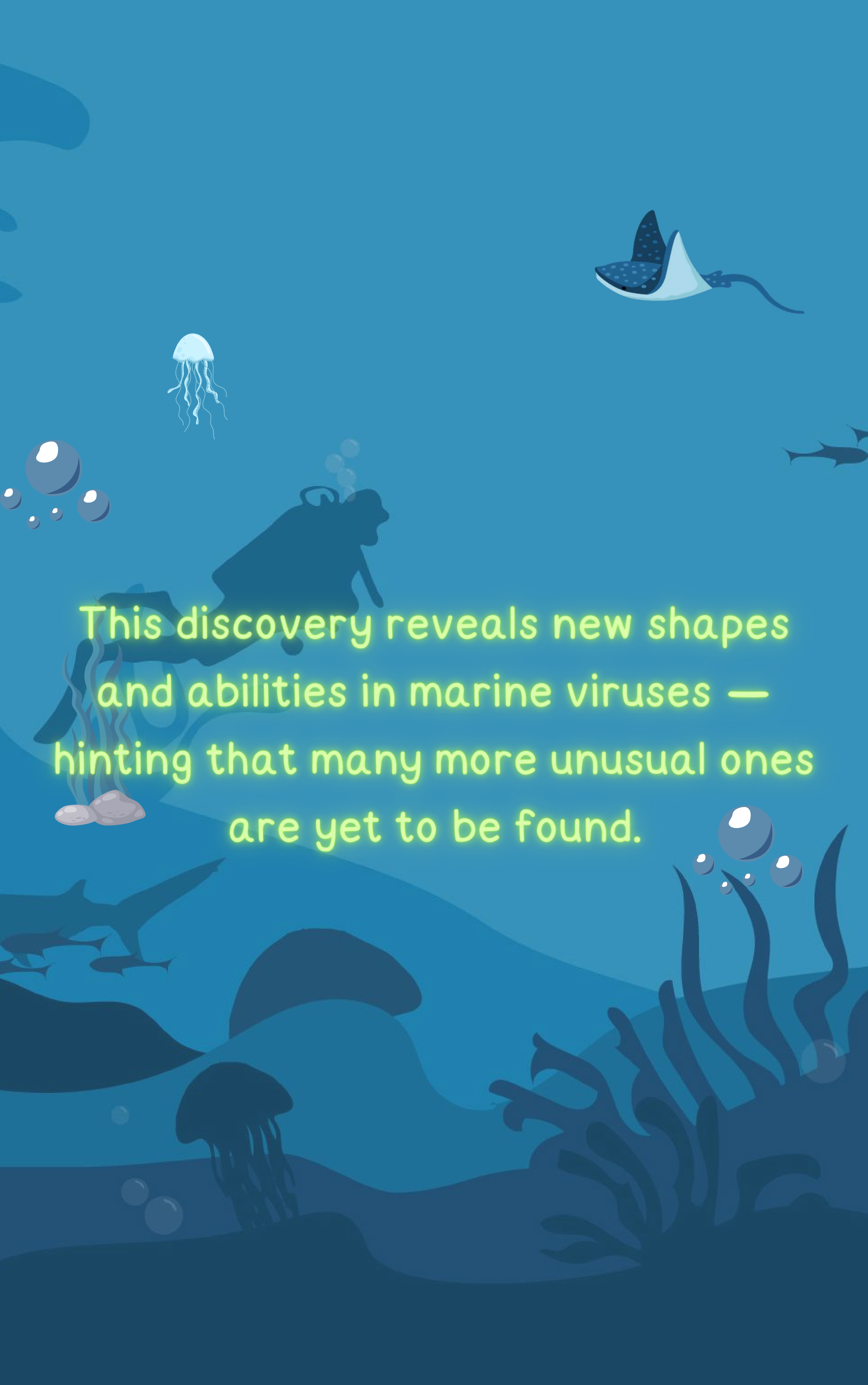
It belongs to the Mesomimiviridae family of giant viruses.





It even carries genes for metabolizing amino acids, sugars, and fats, along with others that help capture light for energy (light-harvesting complex, rhodopsin), transport key molecules like sugars and water across cell membranes (sugar transporters, aquaporin), and regulate charged particles essential for cell function (ion channels).



An illustration of an underwater scene. In the center, a diver in a dark suit and tank is swimming towards the left, with bubbles rising from their tank. To the left of the diver is a small, light-colored jellyfish with long, thin tentacles. Above the diver, there are several blue and white bubbles. In the upper right, a stingray with a dark spotted pattern on its back and a white underside is swimming. To the right of the stingray, a small, dark fish is visible. At the bottom of the image, there are dark, stylized coral reefs and a jellyfish. The background is a gradient of blue, with darker shades at the bottom and lighter shades at the top.

This discovery reveals new shapes
and abilities in marine viruses —
hinting that many more unusual ones
are yet to be found.