

An aerial photograph of a winding asphalt road that curves through a dense, lush green forest. Several cars are visible on the road, including a white car, a blue car, and a white van. The road has white dashed lines for lane markings. The overall scene is vibrant and scenic.

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DAILY NEWS DECODE

16.09.21

TARBALLS



- In this month alone, the Brihanmumbai Municipal Corporation (BMC) has removed over 20,000 kg of tarballs from Juhu and Versova beaches.

- Tarballs are dark-coloured, sticky balls of oil that form when crude oil floats on the ocean surface. Tarballs are formed by weathering of crude oil in marine environments.
- They are transported from the open sea to the shores by sea currents and waves.
- Some of the balls are as big as a basketball while others are smaller globules.
- Tarballs stick to the cleaning machinery and are very difficult to wash off.

Why are tarballs found on the beaches during the monsoon?

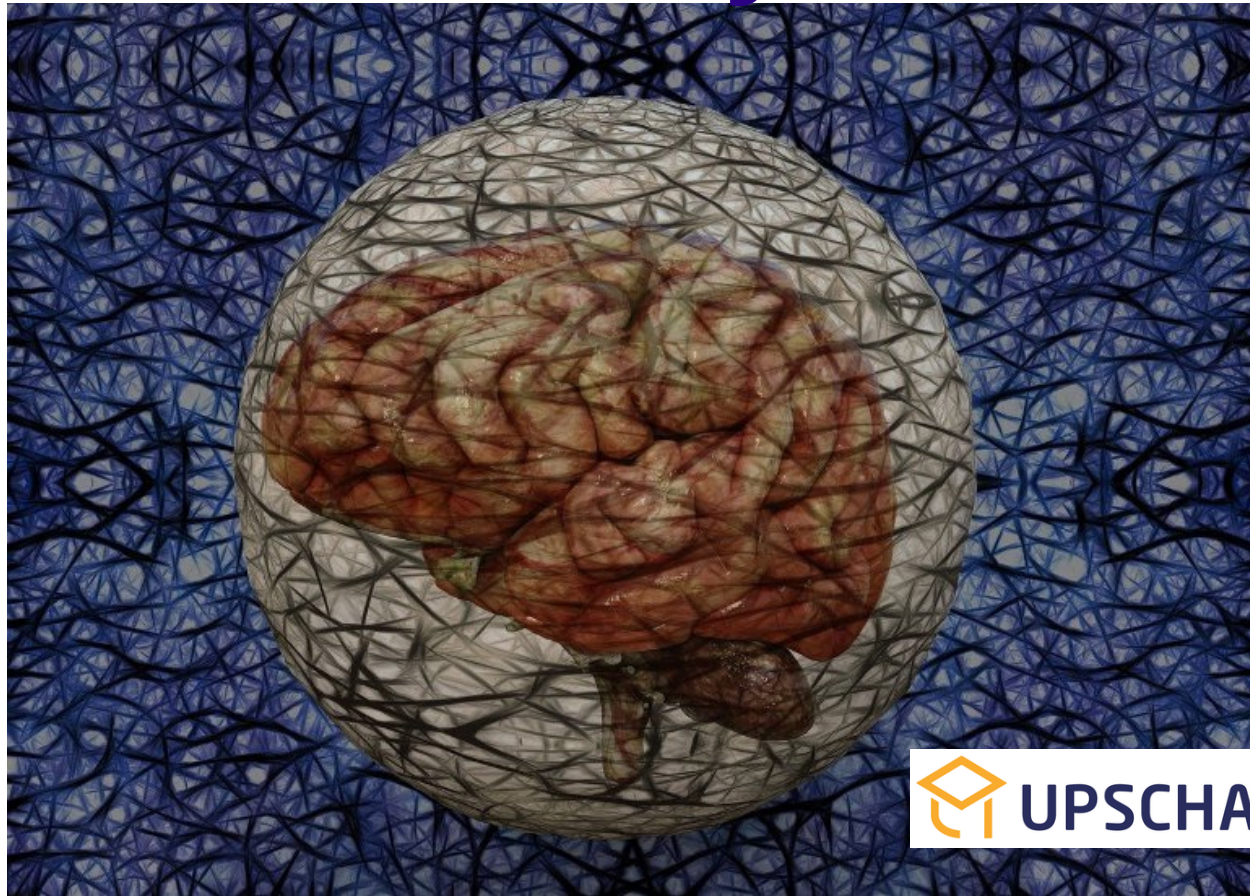
- It is suspected that the oil comes from the large cargo ships in the deep sea and gets pushed to the shore as tarballs during monsoon due to wind speed and direction.

- **All the oil spilt in the Arabian sea eventually gets deposited on the western coast in the form of tarballs in the monsoon season when wind speed and circulation pattern favour transportation of these tarballs.**



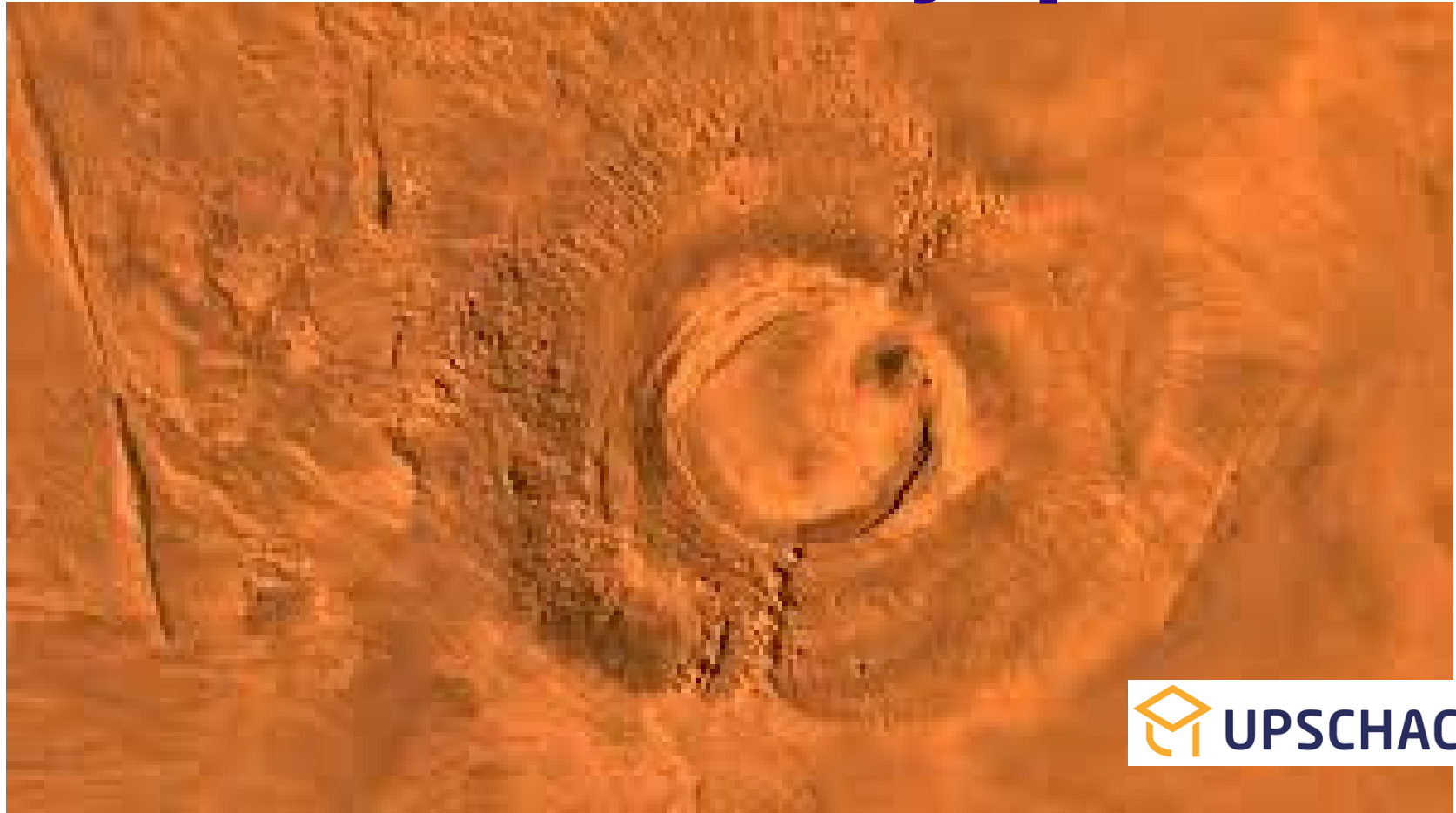
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Cholesterol manufactured in brain drives Alzheimer's plaque formation: Study



- **Cholesterol manufactured in the brain appears to play a key role in the development of Alzheimer's disease, new research indicated.**
- **It has shed light on the formation of amyloid plaque in the brain of Alzheimer's patients suggesting that the production of amyloid is the primary cause of Alzheimer's.**
- **The study was carried out by scientists from the University of Virginia.**

Mars saw thousands of volcanic eruptions over 500-mn-yr period: NASA



- Mars experienced thousands of "super eruptions" over a 500-million-year period about 4 billion years ago, NASA has said.
- Researchers studied the Arabia Terra region where the presence of seven volcanic calderas were the first giveaways that the region may once have hosted volcanoes capable of super eruptions.
- Earlier, the calderas were thought to be depressions left by asteroid impacts.

COVID-19 pandemic has not slowed advance of climate change: UN



- **UN released a report on Thursday warning the COVID-19 pandemic hasn't slowed the pace of climate change.**
- **The United in Science 2021 report said the global fossil-fuel CO2 emissions in the power and industry sectors are at the same level as in 2019, before the pandemic.**
- **Meanwhile, UN Secretary-General Antonio Guterres said, "This is a critical year for climate action."**

India's GDP growth of 6.7% to be fastest in world in 2022: UN report



- India's economy is projected to grow at 6.7% in 2022, the fastest in the world during the year, followed by China at 5.7%, according to a UN Conference on Trade and Development (UNCTAD) report. However, China's 8.3% GDP growth in 2021 will be more than India's 7.2% growth in 2021, it added. India suffered 7% contraction in 2020, it said.

US, UK and Australia announce new partnership "AUKUS"



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- **United States, United Kingdom and Australia have announced the new partnership "AUKUS" a new trilateral security partnership for the Indo-Pacific region.**
- **The trilateral grouping was formally announced by British Prime Minister Boris Johnson, his Australian counterpart Scott Morrison and US President Joe Biden with a vision for a safer and more secure Indo-Pacific.**
- **The first project of AUKUS will be to help Australia acquire a nuclear-powered conventionally-armed submarine fleet.**

- **The three heads of state reaffirmed their intention to continue to work with their allies and groupings in tandem with AUKUS, with the Quad being mentioned by Morrison and Biden.**
- **AUKUS will also involve a new architecture of meetings and engagements between the three countries, as well as cooperation across emerging technologies (applied AI, quantum technologies and undersea capabilities).**



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IIT Bombay rolls out language translator 'Project Udaan'



- **The Indian Institute of Technology (IIT) Bombay has launched 'Project Udaan', a language translator, to break the language barrier in education, which hampers the flow of messages.**
- **The Project Udaan, a donation-based project, is an end-to-end ecosystem, which can translate scientific and technical content from English to Hindi and all other Indian languages.**
- **Project Udaan uses an AI-based translation software ecosystem, to translate engineering textbooks and learning materials, and all main streams of higher learning, in the desired language, in one-sixth of the time taken by a team of domain and linguistic experts working manually on it.**