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SCIENCE CENTRE

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WHAT'S NEW IN SCIENCE?

Part of the Moon fell to Earth: How Chandrayaan-3 Solved an Ancient Lunar Mystery

Nearly two years after Chandrayaan-3's landing near the Moon's South Pole, Researchers have uncovered a remarkable link between the lunar surface and a meteorite discovered on Earth more than four decades ago.

A new study by Researchers at the Physical Research Laboratory (PRL), Ahmedabad, has revealed that the chemical composition of soil analysed by the Pragyan rover at Shiv Shakti station closely matches ALHA 81005, the first meteorite ever confirmed to have originated from the Moon.

The findings provide one of the strongest pieces of evidence yet connecting Chandrayaan-3's in-situ measurements with lunar rocks that were blasted off the Moon and eventually landed on Earth.

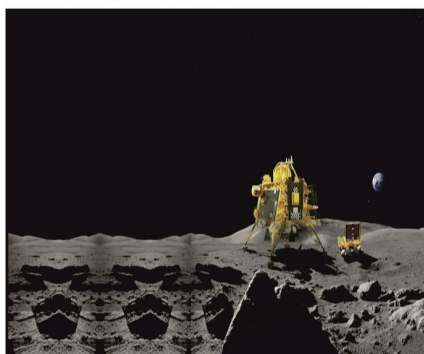
After Chandrayaan-3's successful landing on August 23, 2023, Pragyan's Alpha

Particle X-ray Spectrometer (APXS) examined the elemental composition of lunar soil at the Shiv Shakti Station, located at 69.37° South, 32.32° East in the Moon's Southern highlands. Researchers compared these measurements with the compositions of 66 known lunar meteorites recovered from different parts of Earth. Among them, ALHA 81005, discovered in Antarctica's Allan Hills during the 1981-82 Antarctic expedition, emerged as the closest geochemical match.

The APXS measurements showed the Shiv Shakti Station contains lower aluminium but higher iron and magnesium than typical lunar highland regions. Researchers also found elevated levels of olivine relative to pyroxene, another characteristic shared with ALHA 81005.

Source: <https://www.indiatoday.in/science/chandrayaan-3/story/part-of-the-moon-fell-to-earth-how-chandrayaan-3-solved-ancient-lunar-mystery-2941668-2026-07-06>

Author: Sibu Kumar Tripathi, on 6th July 2026



SCIENTIST OF THE MONTH

Mambillikalathil Govind Kumar Menon

Mambillikalathil Govind Kumar Menon was born on August 28, 1928 at Mangalore in Karnataka. He did graduation in Science from the Jaswant College in Jodhpur in 1946 and M.Sc. from the Royal Institute of Science, Mumbai in 1949. He did postdoctoral research from the University of Bristol, U.K. from 1952-55.

Professor Menon's contribution was of immense value in the field related to the nuclear emulsion techniques and their application to the study of elementary particles. At the Tata Institute of

Fundamental Research, Mumbai, he initiated the high altitude balloon programme. Using the balloon facility,

studies were conducted on the primary cosmic radiation close to the geomagnetic equator with electronic detector system employing from Kov counters.

M.G. Menon received the Shanti Swarup Bhatnagar Award in 1960, the Padma Shri Award in 1961, the Padma Bhushan Award in 1968, the Durga Prasad Khaitan Medal, by the Asiatic Society in 1978 and the Padma Vibhushan in 1985. He died on November 22, 2016.



Main Source: 101, Great Indian Scientists Book, By Shyam Dum



Timings

Tuesday to Sunday
& Public Holidays
9.30 am to 4.30 pm

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SCIENCE FACTS AUGUST 2026

1 August 1924	: Ukrainian-born Physicist Georges Charpak (Winner of the 1992 Nobel Prize in Physics for his invention and development of particle detectors) was born.
1 August 1945	: American Physicist Douglas D. Osheroff (Co-winner of the 1996 Nobel Prize in Physics for their discovery of superfluidity in helium -3) was born.
3 August 1959	: Japanese Scientist Koichi Tanaka (Co-winner of the 2002 Nobel Prize in Chemistry for developing a novel method for mass spectrometric analysis of biological micromolecules) was born.
6 August 1881	: Prof. Alexander Fleming (Discoverer of Penicillin) was born.
7 August 1946	: American Physicist John C. Mather (Co-winner of the 2008 Nobel Prize in Physics for their discovery of the blackbody form and anisotropy of the cosmic microwave background radiation) was born.
7 August 1948	: American Immunologist James P. Allison (Co-winner of the 2018 Nobel Prize in Physiology/ Medicine for their discovery of cancer therapy by inhibition of negative immune regulation) was born.
8 August 1901	: Ernest Lawrence (Inventor of Cyclotron) was born.
8 August 1931	: British Physicist Sir Roger Penrose (Co-winner of the 2020 Nobel Prize in Physics for the discovery that black hole formation is a robust prediction of the general theory of relativity) was born.
9 August 1911	: American Physicist William Alfred Fowler (Co- winner of the 1983 Nobel Prize in Physics for his theoretical and experimental studies of the nuclear reactions of importance in the formation of the chemical elements in the universe) was born.
10 August 1902	: Swedish Chemist Arne Tiselius (Winner of the 1948 Nobel Prize in Chemistry for his research on electrophoresis adsorption analysis, especially for his discoveries concerning the complex nature of the serum proteins) was born.
11 August 1926	: Lithuanian-born Chemist Aaron Klug (Winner of the 1982 Nobel Prize in Chemistry for his development of crystallographic electron microscopy and his structural elucidation of biologically important nucleic acid-protein complexes) was born.
12 August 1887	: Austrian Physicist Erwin Schrodinger (Co-winner of the 1933 Nobel Prize in Physics for the formulation of the Schrodinger equation) was born.
13 August 1913	: Harry Brearley invented stainless steel.
15 August 1892	: French Physicist Louis de Broglie (Winner of the 1929 Nobel Prize in Physics for his discovery of the wave nature of electrons) was born.
16 August 1845	: French Physicist Gabriel Lippmann (Winner of the 1908 Nobel Prize in Physics for the invention of a method for reproducing colours photographically based on the phenomenon of interference) was born.
17 August 1870	: Frederick Russell (Inventor of first successful typhoid fever vaccine) was born on this day
18 August 1932	: French Virologist Luc Montagnier (Co-winner of the 2008 Nobel Prize in Physiology/Medicine for their discovery of human immunodeficiency virus) was born.
20 August 1779	: Swedish Chemist Jons Jakob Berzelius (Credited with discovering the chemical elements cerium and selenium and with being the first to isolate silicon, thorium and zirconium) was born.
23 August 2018	: American Chemist Thomas A. Steitz (Co-winner of the 2009 Nobel Prize in Chemistry for studies of the structure and function of the ribosome) was born.
25 August 1900	: German Physician and biochemist Hans Adolf Krebs (Co-winner of the 1953 Nobel Prize in Physiology or Medicine for his discovery of the citric acid cycle) was born.
26 August 1906	: Albert Sabin (Inventor of oral polio vaccine) was born on this day.
27 August 1928	: Japanese Chemist Osamu Shimomura (Co-winner of the 2008 Nobel Prize in Chemistry for the discovery and development of the green fluorescent protein "GFP") was born.
29 August 1943	: Canadian Physicist Arthur B. MacDonald (Co-winner of the 2015 Nobel Prize in Physics for the discovery of neutrino oscillations, which shows that neutrinos have mass) was born.
30 August 1852	: Dutch Physical and Organic Chemist Jacobus Henricus van't Hoff (The first winner of the Nobel Prize in Chemistry) was born.

Ans: 1. a 2. b 3. c 4. a 5. b

SCIENTIFIC QUESTION

What is Ebola virus?

Ebola virus is a severe often fatal pathogen that causes Ebola virus disease (EVD), a rare form of viral hemorrhagic fever.

The virus primarily targets humans and non-human primates, causing internal bleeding, organ failure and historically high mortality rates averaging around 50%

How it Spreads:

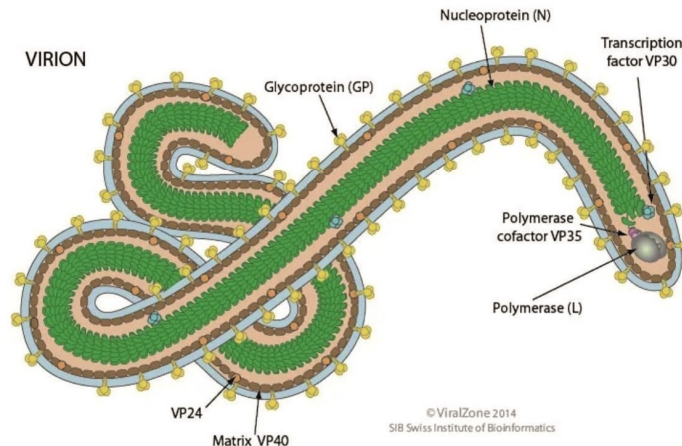
- **Direct Contact** - The virus is transmitted through direct physical contact with the blood or bodily fluids (saliva, sweat, vomit, feces, semen) of an infected person or animal.
- **Contaminated Objects** - It can spread by touching items such as needles, medical equipment or clothing that have been contaminated by these fluids.
- **Animal to Human** - People can catch the virus by handling infected wild animals (often called bushmeat) or coming into contact with infected fruit bats, which are thought to be the natural animal reservoir.

It is not an airborne virus and cannot be easily spread through casual public contact.

Symptoms:

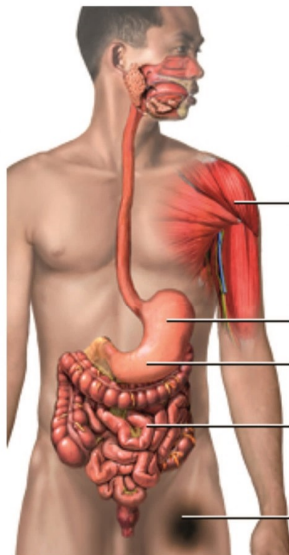
Symptoms typically appear between 2 and 21 days after exposure.

Initial signs- Sudden fever, severe headache, intense muscle and joint pain and weakness.



Progression - Nausea, vomiting, diarrhea, stomach pain and lack of appetite

Severe stage - Bleeding from the nose, gums and skin, bloody vomiting or stools and organ dysfunction



Symptoms of ebola include:

Fever (greater than 101.5°F or 38.6°C)

Muscle pain and weakness

Vomiting

Abdominal (stomach) pain

Diarrhea

Unexplained hemorrhage (bleeding or bruising) ADAM.



Ebola virus

Treatment and Prevention:

While Ebola was historically considered almost entirely untreatable, modern medical advancements have greatly improved survival rates.

Care - Treatment relies on aggressive supportive care, including rehydration with intravenous fluids, maintaining blood pressure and treating specific Symptoms

Medications - Certain monoclonal antibodies (such as Ebanga and Immazb) have been approved for treating specific strains of the virus.

Vaccines - Highly effective vaccines exist and are strategically deployed to manage and prevent outbreaks in high-risk regions. FDA - approved vaccine is ERVEBO

Main Source and Image:

<http://www.who.int>, <http://en.wikipedia.org>

KNOW THE ENTERING INTO SPACE GALLERY EXHIBIT

International Space Laws-Applicability

This can be mentioned here that, although United Nations Office of Outer Space Affairs considers these treaties and principles as Laws, these treaties/principles are nonbinding in reality. The only binding force here is a sort of international pressure by other nations like financial or economic prohibition when a Country strays from the treaties.

This exhibit is situated at "Entering Space Gallery" between Fun Science Gallery and Power of Play Gallery at the first floor of Science Centre.



QUIZ

1. What is the name given to the interaction system that forms between biological communities and their associated physical components?
a. Ecosystem b. Transportation system c. Population
2. Producers, consumers and Decomposers are what type of components of the ecosystem?
a. Abiotic b. Biological c. Water
3. What is not included in a Fresh water ecosystem?
a. River b. Lake c. Sea
4. Which of the following organisms is a Producer?
a. Moss b. Snake c. Deer
5. Which of the following are called secondary consumers?
a. Green plants b. Carnivorous c. Herbivore