

# Aliens MUST exist beyond Earth, leading scientist insists - 'it's human conceit to think we're alone'

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Whether [alien](#) life exists in the universe may be one of science's most important questions. Now, a leading British scientist says she has a definitive answer.

Dame Maggie Aderin-Pocock, a space scientist and presenter of *The Sky at Night*, says that humans must not be the only life forms in the universe.

And she argues that it is an example of 'human conceit' that we should think otherwise.

Speaking to [The Guardian](#), Dame Aderin-Pocock claimed that science's discoveries about the size of the universe make it impossible for humans to be alone.

When asked if she thinks we're alone, she said: 'My answer to that, based on the numbers, is no, we can't be.'

'It's that human conceit again that we are so caught up in ourselves that we might think we're alone.'

However, exactly where and why aliens could be hiding remains a mystery.



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**Leading British scientist Dame Maggie Aderin-Pocock says that alien life must exist in the universe and that it is 'human conceit' to think otherwise**

The expert explained that humanity is slowly realising just how insignificant we are on the grand scale of the universe.

While Aristotle's theory that the Earth was at the centre of the universe survived for centuries, each subsequent theory has shifted us further out of the limelight.

According to Dame Aderin-Pocock, the true moment of realisation came in the 19th century thanks to pioneering astronomer Henrietta Swan Leavitt, who first created a way of measuring the vast distances between the stars.

This discovery was the first time that humanity was able to get an accurate understanding of the scale of the universe.

'And then suddenly we realised that we were so much more insignificant than we ever thought,' she said.

Later, as the [Hubble Space Telescope measurements showed there were approximately 200 billion galaxies](#) other than our own, the fact that alien life must exist seemed inescapable to many scientists.

With current estimates suggesting there are potentially two trillion galaxies, even if the emergence of life is extremely rare, it is almost certain that life exists.

This fact, coupled with the total absence of evidence for alien life, is [what scientists describe as the 'Fermi Paradox'](#).



**Dame Aderin-Pocock says that the sheer size of the universe makes it certain that alien life must exist even if the chances of life emerging are very low. She says that 'based on the numbers' humanity cannot be alone in the universe (stock image)**

First proposed in 1950 by the physicist Enrico Fermi, this paradox asks why, if aliens are so abundant in the universe, have we not met any yet.

Since then, scientists have suggested various proposals including the possibility that life might be doomed to extinction before civilisations have a chance to make contact.

For her part, Dame Aderin-Pocock appears to suggest the answer may have more to do with our lack of knowledge.

She says: 'The fact we only know what approximately six per cent of the universe is made of at this stage is a bit embarrassing.'

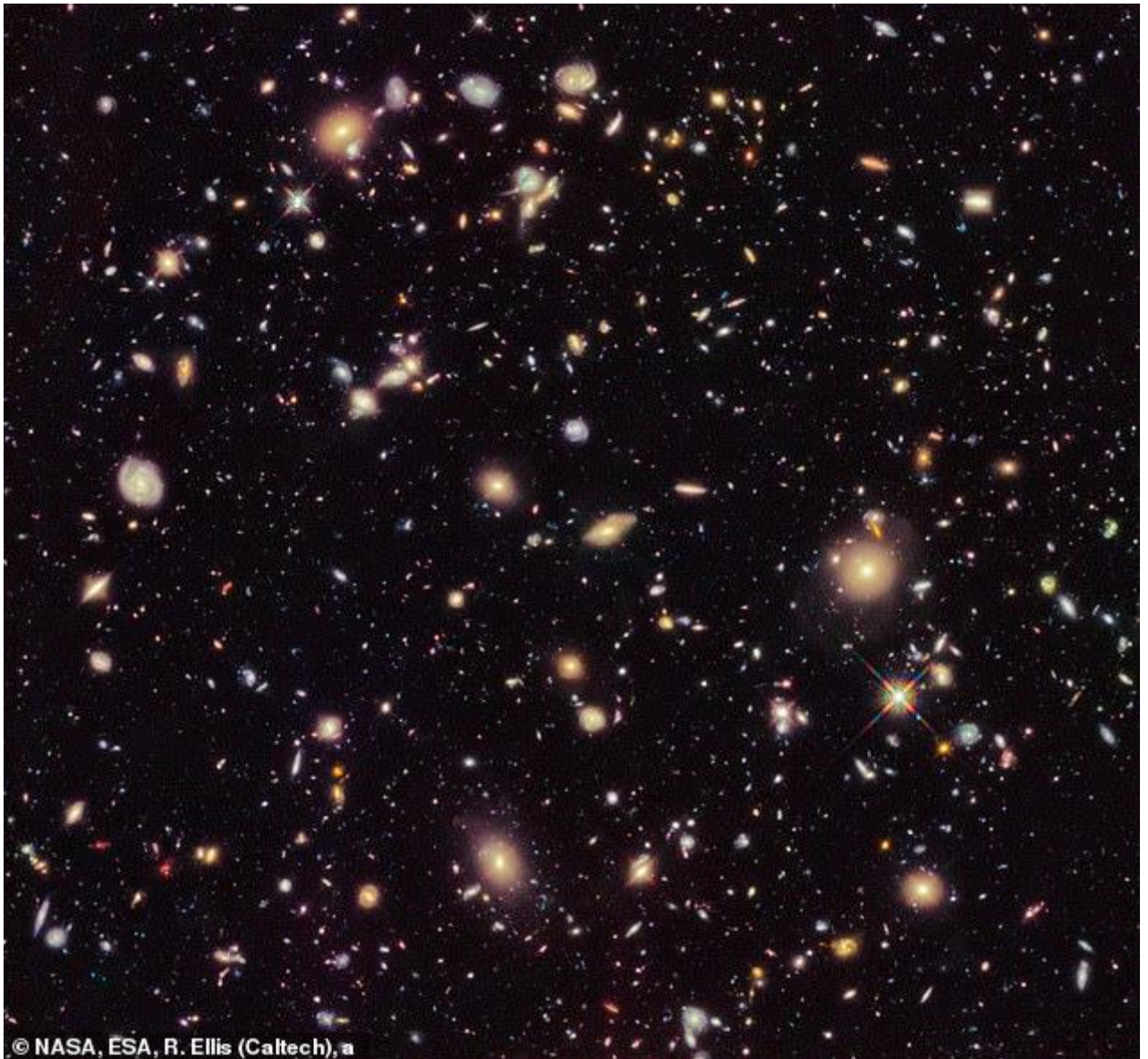
These comments are in reference to the fact that humanity has only observed conventional matter, while [dark matter and dark energy are believed to make up more than 90 per cent of the universe's total mass.](#)

However, Dame Aderin-Pocock also acknowledges that life in the universe is fragile and that it doesn't take much for a civilisation to vanish before its time.

As our own planet's history shows, asteroid impacts are both relatively common and [have the potential to wipe out entire species.](#)

Just like an asteroid caused the extinction of the dinosaurs, it is not impossible that similar impacts could destroy alien civilisations or our own before we have time to make contact.





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Since the Hubble Ultra Deep Field (pictured) revealed that there were even more distant galaxies yet to be discovered, scientists now believe that there are around two trillion galaxies in the universe. However, if this makes alien life a certainty the question becomes why we haven't encountered aliens yet

Recently, humanity's vulnerable position in the solar system was made abundantly clear as NASA [discovered a 'city-killing' asteroid on a potential collision course with Earth](#).

Although that space rock, dubbed 2024 YR4, [was ultimately revealed to be harmless](#), scientists warn that similar discoveries will become more common as our ability to spot asteroids improves.

'We live on our planet and, I don't want to sound scary, but planets can be vulnerable,' Dame Aderin-Pocock says.

For this reason, she supports further human missions to other planets.

'I won't say it's our destiny because that sounds a bit weird, but I think it is our future,' she said.

'So I think it makes sense to look out there to where we might have other colonies – on the moon, [on Mars and then beyond as well](#).'

However, the expert also says that she has reservations about [the 'battle of the billionaires' currently taking place between private space companies](#) and warns that legislation is crucial.

She added: 'Sometimes it feels a bit like the wild west where people are doing what they want out there, and without the proper constraints I think we could make a mess again. And again, if there is an opportunity to utilise space for the benefit of humanity, let it be for all of humanity.'

# KEY DISCOVERIES IN HUMANITY'S SEARCH FOR ALIEN LIFE

## **Discovery of pulsars**

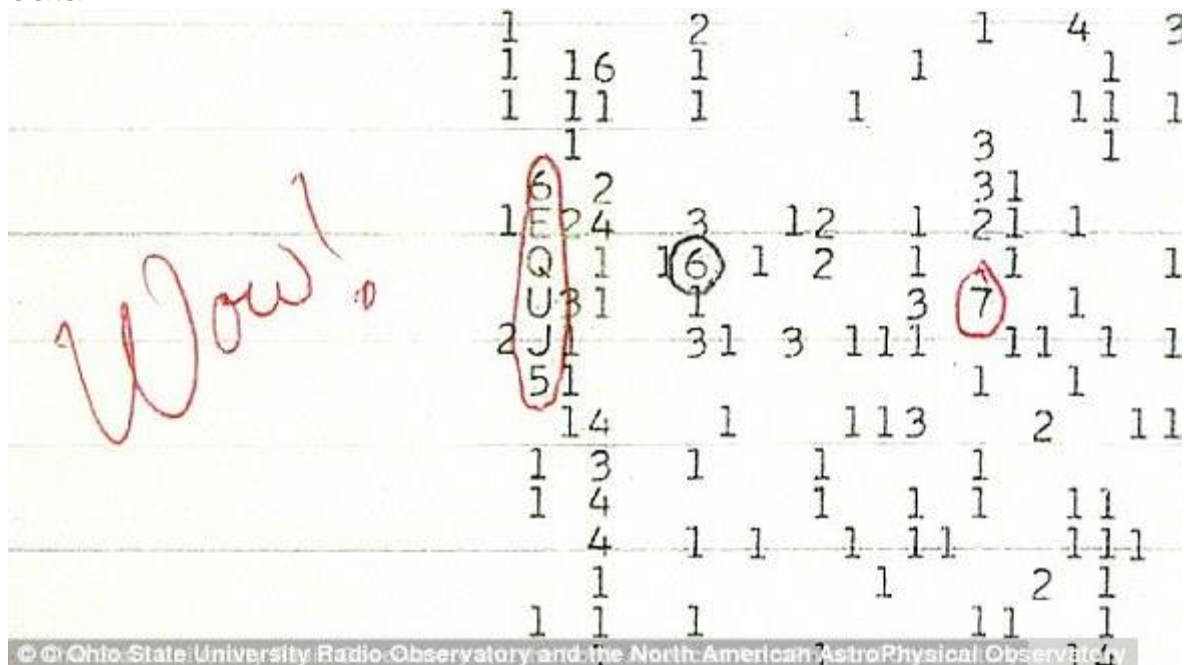
British astronomer Dame Jocelyn Bell Burnell was the first person to discover a pulsar in 1967 when she spotted a radio pulsar.

Since then other types of pulsars that emit X-rays and gamma rays have also been spotted.

Pulsars are essentially rotating, highly magnetised neutron stars but when they were first discovered it was believed they could have come from aliens.

## **'Wow!' radio signal**

In 1977, an astronomer looking for alien life in the night sky above Ohio spotted a radio signal so powerful that he excitedly wrote 'Wow!' next to his data.



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The 72-second blast, spotted by Dr Jerry Ehman through a radio telescope, came from Sagittarius but matched no known celestial object.

Conspiracy theorists have since claimed that the 'Wow! signal', which was 30 times stronger than background radiation, was a message from intelligent extraterrestrials.

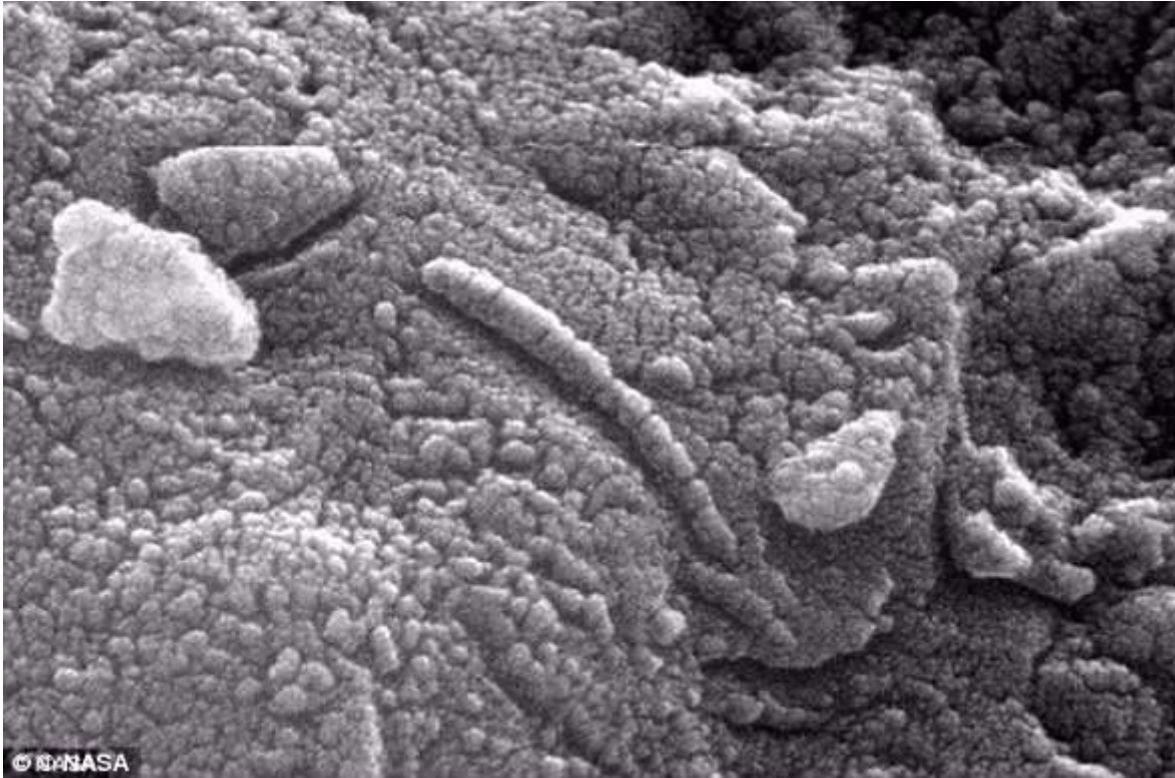
## **Fossilised Martian microbes**

In 1996 Nasa and the White House made the explosive announcement that the rock contained traces of Martian bugs.

The meteorite, catalogued as Allen Hills (ALH) 84001, crashed onto the frozen wastes of Antarctica 13,000 years ago and was recovered in 1984.

Photographs were released showing elongated segmented objects that appeared strikingly lifelike.





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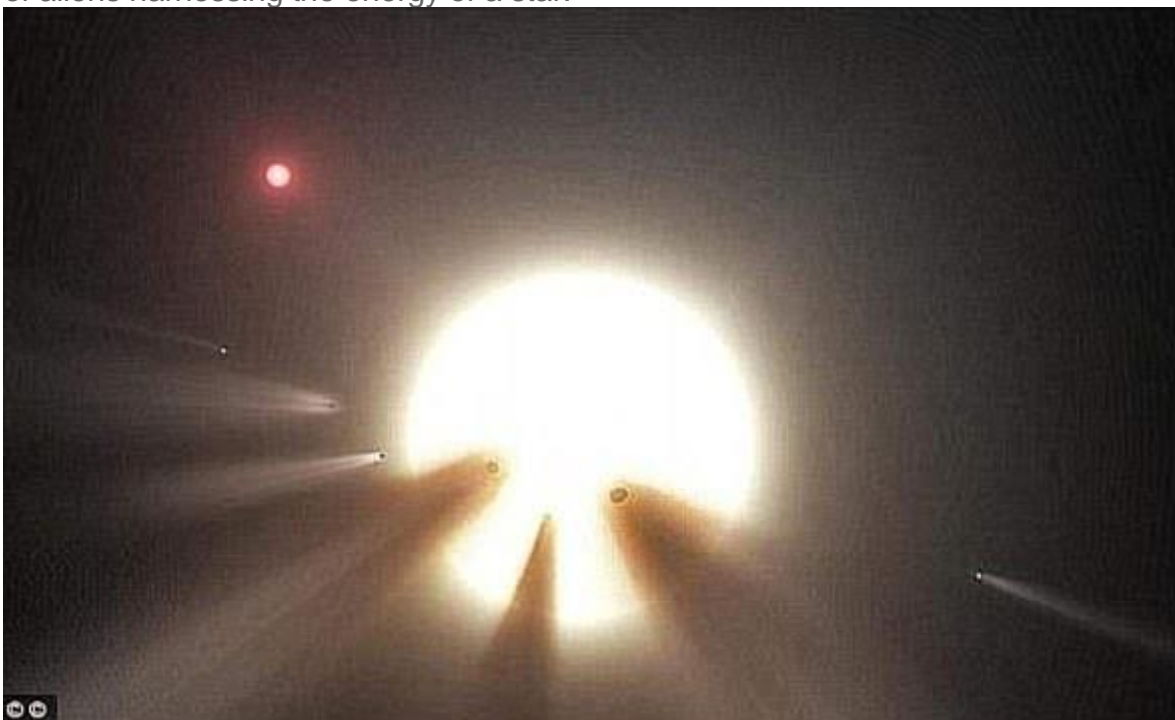
However, the excitement did not last long. Other scientists questioned whether the meteorite samples were contaminated.

They also argued that heat generated when the rock was blasted into space may have created mineral structures that could be mistaken for microfossils.

### **Behaviour of Tabby's Star in 2005**

The star, otherwise known as KIC 8462852, is located 1,400 light years away and has baffled astronomers since being discovered in 2015.

It dims at a much faster rate than other stars, which some experts have suggested is a sign of aliens harnessing the energy of a star.



The star, otherwise known as KIC 8462852, is located 1,400 light years away and has baffled astronomers since being discovered in 2015 (artist's impression)

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Recent studies have 'eliminated the possibility of an alien megastructure', and instead, suggests that a ring of dust could be causing the strange signals.

### **Exoplanets in the Goldilocks zone in 2017**

In February 2017 astronomers announced they had spotted a star system with planets that could support life just 39 light years away.

Seven Earth-like planets were discovered orbiting nearby dwarf star 'Trappist-1', and all of them could have water at their surface, one of the key components of life.

Three of the planets have such good conditions, that scientists say life may have already evolved on them.

Researchers claim that they will know whether or not there is life on any of the planets within a decade, and said: 'This is just the beginning.'