

condition and do regular blood transfusions to ensure the baby was kept healthy throughout the nine-month term.

ations at Singleton and Morrision hospitals in Swansea, although staff have helped with emergencies even when taking strike action.

sense that they should be paid a higher wage. However, I am concerned at the effect their actions could have on hospitals.

The people of Swansea need a fully operational health service and that means sorting this current dispute out once and for all."

A "Gwent" Health spokesman said there have been no new cases of the fever which affected workers during the summer.

It's life Jim, but not as we know it – scientists studying Earthshine may shed light on other life-bearing worlds

ASTRONOMERS have taken the first step towards searching for life-bearing other worlds by identifying the vital signs hidden in light from the Earth, it was disclosed yesterday.

Scientists studying Earthshine – Earthlight reflected off the Moon – found clear signs of water and an oxygen atmosphere, as well as suggestions of plant life.

The findings give a clear indication of what to search for when looking for life on Earth-like worlds orbiting distant stars.

The work by American astronomers is paving the way for new technology which in the next 10 to 15 years could discover the first unequivocal evidence of extra-terrestrial life.

Two powerful new space telescopes, one American and the other European, are planned with the ability to separate the light of small planets from the bright glare of their parent stars.

By analysing the light reflected from these planets, it will be possible to spot tell-tale signs of life in the chemical composition of their atmospheres.

Wes Traub, a member of the astronomy team from the Harvard-Smithsonian Center for Astrophysics in Cambridge, Massachusetts, said, "Hopefully, within the next 10 years astronomers will be able to confidently say that some as yet undiscovered planet is a living world like our own."

So far astronomers have only been able to detect large gaseous Jupiter-like extra-solar planets by looking for the gravitational effect they have on their parent stars.

About 100 planets have been found by scientists using this method, but none is anything like the Earth and could not possibly support life as we know it. Small rocky planets such as Earth have remained hidden because their gravity is too weak to influence the stars they orbit.

But when Nasa's Terrestrial Planet Finder and the European Space Agency's Darwin telescopes are launched they could open a whole new treasure trove of planets – possibly including some like our own.

The Smithsonian team, working with colleagues at the University of Arizona's Steward Observatory, used the Moon as a mirror to replicate the view a distant astronomer would have if studying Earth from another planet.

They measured both the light of Earthshine reflected off the Moon and the light of the Moon itself. Then they corrected the Earthshine to determine how it would appear to a far away observer.

The astronomers found that the Earthlight showed strong evidence of water – a necessary ingredient for life – and molecular oxygen, which must be continually replenished by living things to remain in the atmosphere.

They also discovered features

that suggested the presence of chlorophyll, indicating the existence of land plants.

The latter showed up as bright reflections in the far-red region of the visible spectrum. This "red edge" is a well-known signature of chlorophyll, which appears green to us only because our eyes are not very sensitive at the red end of the visible spectrum.

Our planet has maintained an oxygen atmosphere for the past two billion years, and shown a "red edge" since the first land plants evolved 500 million years ago.

"If someone is out there watching our solar system, they could have detected plant life here long before any intelligent life appeared," said Traub.

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