

'SUPER-EARTH' FOUND ORBITING SUN'S NEAREST SINGLE STAR

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Star trek: An artist's impression of the surface of the 'Super-Earth' orbiting Barnard's star. | Photo Credit: [AFP PHOTO / ESO](#)

Astronomers have discovered a frozen planet with a mass over three times that of the Earth, orbiting the closest solitary star to the Sun.

The potentially rocky planet, known as Barnard's star b, is a 'super-Earth' and orbits around its host star once every 233 days, said researchers from Queen Mary University of London.

The findings, published in the journal *Nature*, show the planet lies at a distant region from the star known as the 'snow line' This is well beyond the habitable zone in which liquid water, and possibly life, could exist, researchers said. The planet's surface temperature is estimated to be around -170°C, they said. However, if the planet has a substantial atmosphere the temperature could be higher and conditions potentially more hospitable.

"Barnard's star is an infamous object among astronomers and exoplanet scientists, as it was one of the first stars where planets were initially claimed but later proven to be incorrect. Hopefully we got it right this time," said Guillem Anglada Escude from Queen Mary's School of Physics and Astronomy.

At nearly six light-years away Barnard's star is the next closest star to the Sun after the Alpha Centauri triple system. It is a type of faint, low-mass star called a red dwarf. Red dwarfs are considered to be the best places to look for exoplanet candidates, which are planets outside our solar system.

Barnard's star b is the second closest known exoplanet to our Sun. The closest lies just over four light-years from Earth. That exoplanet, Proxima b, orbits around the red dwarf Proxima Centauri.

The researchers used the radial velocity method during the observations that led to the discovery of Barnard's star b. This technique detects wobbles in a star which are likely to be caused by the gravitational pull of an orbiting planet. These wobbles affect the light coming from the star.

On the eve of World Diabetes Day, WHO said that will continue to support all member states to empower families to tackle diabetes head-on and ensure

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