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Hopes Dashed For Life on Distant Planet

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They played a silly game of guessing and this time they have definitively got it wrong. Scientists thought that Gliese 581c is the so called "it planet." "No, we definitively found another planet out there that can support life," they stated. That was earlier this year. Now, based on their computer model, scientists are asking themselves why didn't they look a tiny bit closer - maybe to the right, or left of Gliese 581c, maybe at its neighbour. Turns out, Gliese 581c would be way too hot to sustain life or liquid water for that matter, but its neighbour, Gliese 581d, might be just right (or are they wrong again?).

So Much Promise

Gliese 581c was discovered in April and when it was discovered, more than half of the scientists held their breath. It was a promising planet. Scientists discovered a first planet which resided within a habitable zone of its star. When one mentions habitable, one means not too hot and not too cold or just simply perfect.

However, the new model designed by Werner von Bloh of the Institute for Climate Impact Research in Germany and his team suggests that Gliese is no Earthly paradise. In fact, it is more like Venus. Methane and carbon dioxide reside in its atmosphere and create runway greenhouse effect which in turn warms the planet - that is, well above 212 degrees Fahrenheit. Now, that would calculate to 100 degrees Celsius, boiling away water and with it, the promise of life.

Gliese 581d

So, Gliese 581c turned out to be non habitable, but scientists always find something new. Gliese 581d gives new hope for finding life out there.

> *"This planet is actually outside the habitable zone," said Manfred Cuntz, an astronomer at the University of Texas at Arlington and a member of von Bloh's team. "It appears at first sight too cold. However, based on the greenhouse effect, physical processes can occur which are heating up the planet to a temperature that allows for fluid water."*

The speculation: Gliese 581d contains primitive forms of life. Wait... We have heard this already! But it was earlier in this year, so that is okay.

Still Inspecting

David Charbonneau, an astronomer at the Harvard-Smithsonian Center for Astrophysics (CfA) admits that scientists from Germany have given a sound calculation but that he doesn't know yet if it is correct. Testing the environment of these planets could lead scientists to favourable results in the future.

Here's a catch: Gliese 581d is more like our sun - well, it is remarkably stable. Matthews and his team observed this planet for 6 weeks and they saw very few instances of the powerful solar flares.

> *"If the star showed significant variations in brightness during the weeks we monitored it, that would at least complicate the thermal equilibrium of the planets around it," Matthews explained.*

This stability of light also suggests that Gliese 581 is old and that it has been around for at least a few billion years.

> *"Young stars, like young people, can have bad cases of acne (large starspots and activity) and spin around," Matthews said in an email interview. "Older stars like the sun have relatively clear complexions and rotate rather sedately."*

However, this is good news for scientists hoping to find life on this planet.

> *"We know it took about three and a half billion years for life on Earth to reach the level of complexity that we call human," Matthews said, "so it's more encouraging for the prospects of complex life on any planet around Gliese 581 if it's been around for at least as long."*

In every scientific research, an error occurs. It would not be science if it did not happen. There is a 50/50 chance that they will find life even on Gliese 581d. Many would wonder how long it would take scientists to rule out even Gliese 581d. Sometimes, it is a good idea to check the results and do more research before jumping to conclusions.