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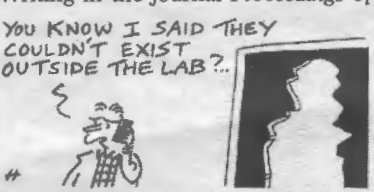
New life form is created in the laboratory

Tom Whipple Science Editor

It's life, but not as we know it. In a laboratory in California, scientists have created an organism with a completely different genetic code.

All life on Earth stores its genetic information in a helix of DNA containing four different units of information, referred to using the letters G, T, C and A. Now researchers have modified *E. coli* bacteria to use six letters — in the hope that they can "create organisms with wholly unnatural attributes and traits not found elsewhere in nature".

Although this is not the first time biologists have managed this, it is the first time such organisms have thrived. Writing in the journal *Proceedings of the National Academy of Sciences* the scientists said that by creating living "semi-synthetic" organisms whose DNA can store more information, they hoped to open a completely new field.



They call the additional letters X and Y, and the *E. coli* have to be continuously supplied with the molecules in order to survive. This is in part a protection, so that they cannot exist outside the laboratory.

Scientists said that creating an organism in which the new genetic code was stable constituted a big advance.

"If the semi-synthetic organism is going to really be an organism, it has to be able to stably maintain that information," Floyd Romesberg, of the Scripps Research Institute, said.

He added: "We can now get the light of life to stay on. That suggests that all of life's processes can be subject to manipulation."