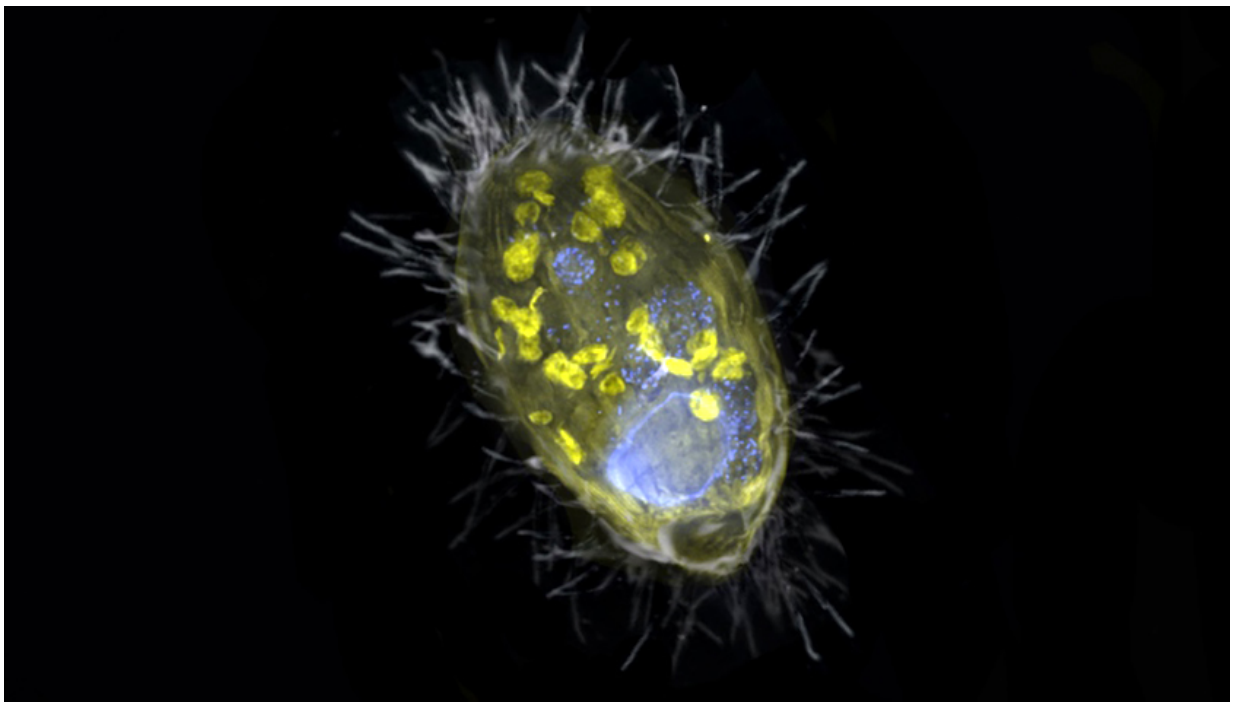

New form of symbiosis discovered

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Topics: Biodiversity | Ecosystems

Researchers have discovered a unique bacterium that lives inside a unicellular eukaryote and provides it with energy. Unlike mitochondria, this so-called endosymbiont derives energy from the respiration of nitrate, not oxygen.

They are also called power plants of the cells: the mitochondria. They are present in almost all eukaryotic cells and they supply the cells with energy. Until now, it was assumed that only mitochondria can act as the cells' energy providers. Scientists at the Max Planck Institute for Marine Microbiology, together with their colleagues from the Max Planck Genome Center in Cologne and the aquatic research institute Eawag, have now discovered that symbiotic bacteria can fulfil this function too. Their findings shed a completely new light on the survival of simple eukaryotes in oxygen-free environments. These results have just been published in the renowned scientific journal Nature.

More information about the new discovery on the website of the Max Planck Institute for Marine Microbiology: New form of symbiosis discovered

Cover picture: ©Max-Planck-Institut für Marine Mikrobiologie, S. Ahmerkamp

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