

Did life start with the simple division of droplets in Earth's primordial soup?

A collaboration of physicists and biologists in Germany has found a simple mechanism that might have enabled liquid droplets to evolve into living cells in early Earth's primordial soup.

...

The central question about the origin of life has been how the first cells arose from primitive precursors. What were those precursors, dubbed "protocells," and how did they come alive?

...

Now, the new work by [David Zwicker](#) and collaborators at the Max Planck Institute...suggests an answer. The scientists studied the physics of "chemically active" droplets...and discovered that these droplets tend to grow to cell size and divide, just like cells.

...

If chemically active droplets can grow to a set size and divide of their own accord, then "it makes it more plausible that there could have been spontaneous emergence of life from nonliving soup," said [Frank Jülicher](#), a biophysicist in Dresden....

...

However, [David Deamer](#), a biochemist at the University of California, Santa Cruz, and a longtime champion of the membrane-first hypothesis, argues that while the newfound mechanism of droplet division is interesting, its relevance to the origin of life remains to be seen. The mechanism is a far cry, he noted, from the complicated, multistep process by which modern cells divide.

Droplet double

Credit: Lucy Reading-Ikkanda/Quanta Magazine.

[The study can be found [here](#).]

The GLP aggregated and excerpted this blog/article to reflect the diversity of news, opinion, and analysis. Read full, original post: [Dividing Droplets Could Explain Life's Origin](#)