

## Video: Amazing replication of a single DNA shows randomness of genetics

Researchers at the University of California, Davis, have just reported a small but significant accomplishment: catching the replication of a single DNA molecule on video for the first time. And the footage has revealed some surprising details about this structure on which all life depends.

...

The process of DNA replication is a tremendous source of wonder and focus for research. The helix must unwind and have each strand copied smoothly and quickly...To better probe those mysteries, geneticist and microbiologist [Stephen Kowalczykowski](#) and colleagues watched DNA from bacteria replicate. They wanted to see exactly how fast the enzymes worked on each strand.

This first-ever view...revealed a surprise: replication stopped unpredictably and moved at a varying pace. "The speed can vary about 10-fold," Kowalczykowski said in a statement. The two strands also replicated at different speeds. Sometimes the copying stalled on one strand while proceeding on the other.

"We've shown that there is no coordination between the strands," said Kowalczykowski. "They are completely autonomous." The process, the researchers report in their study, published in [Cell](#), is much more random than previously suspected.

**The GLP aggregated and excerpted this blog/article to reflect the diversity of news, opinion, and analysis. Read full, original post: [DNA Replication Filmed for First Time Shows How Awkward and Random Genetics Is](#)**