

So-called endogenous retroviruses could guide embryonic development, defend young cells from virus infections

Our genomes are riddled with the detritus of ancient viruses. They infected our hominid ancestors tens of millions of years ago, inserting their genes into the DNA of their hosts.

Today, we carry about 100,000 genetic remnants of this invasion. So-called endogenous retroviruses [make up 8 percent of the human genome](#).

Mostly, these genetic fragments are generally nothing more than molecular fossils. Over thousands of generations, they have mutated so much that they cannot replicate in our cells. And our cells keep the viral DNA muzzled to minimize the harm it might cause.

But scientists are finding that some endogenous retroviruses do wake up, and at the strangest time.

A new study published in the journal Nature on Monday suggests that endogenous retroviruses [spring to life in the earliest stages of the development of human embryos](#). The viruses may even assist in human development by helping guide embryonic development and by defending young cells from infections by other viruses.

“The fact that viruses may be playing a vaccine role inside the cell is pretty amazing,” said Guillaume Bourque, a genomicist at McGill University who was not involved in the study.

The GLP aggregated and excerpted this blog/article to reflect the diversity of news, opinion and analysis. Read full, original post: [Ancient Viruses, Once Foes, May Now Serve as Friends](#)