

Creationist Answer to ERVs

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First, let's define ERV. It stands for "Endogenous RetroVirus."

retrovirus: single-stranded RNA viruses having a helical envelope and containing an enzyme that allows for a reversal of genetic transcription, from RNA to DNA rather than the usual DNA to RNA

endogenous: proceeding from within; derived internally

(See "retrovirus" & "endogenous" Random House Dictionary, Random House Inc, 2011; See also The American Heritage Science Dictionary, Houghton Mifflin Company, 2010)

Simple Translation

An ERV is an RNA Virus that comes from within the cells of your body.
ERVs are shaped like DNA molecules, and copy their information onto DNA.

Normal Copying Process:

DNA --> RNA --> Protein

RNA (ribonucleic acid) is a double-helix strand that copies itself from DNA. The RNA then moves away to perform jobs needed by the cell, using the code it got from the DNA. If you can imagine a secretary taking copies of a Xeroxed memo, and giving it to other employees, then you can understand how messenger RNA (mRNA) works. Though the RNA can have many functions, it is basically a copy and deliver process.

What is unique about retroviruses is something called "reverse transcription." Instead of copying from the DNA code to "print" onto the RNA, the retrovirus will copy from the RNA and "print" onto the DNA. (i.e. Instead of the boss telling the secretary what to print, the secretary prints whatever she wants.) This has been found to cause some problems, as it has been linked in some ways to cancer and aids.

(See Jaquelin P. Dudley & Jennifer A. Mertz, "Endogenous Retroviruses and Cancer," *Retroviruses and Insights into Cancer*, Biomedical and Life Science, 2011, p. 119-162, DOI: 10.1007/978-0-387-09581-3_5)

Retrovirus Copying Process:

**Retrovirus --> DNA --> RNA --> Protein
(RNA)**

Normally, cells have a "self-destruct" button (apoptosis) they use when a virus starts taking over, which prevents other cells from being infected if possible, and keeps out viruses from being transferred to children during sexual reproduction. However, an *endogenous* retrovirus (ERV) seems to attach to the sperm/egg (gamete cells) and is passed on from generation to generation internally.

"Genetic alterations to germ cells are rare and have been mostly found to harm overall genetic fitness, not improve it. What would make retroviruses an exception?"

-Jeffrey H. Schwartz & Bruno Maresca, "Do Molecular Clocks Run at All? A Critique of Molecular Systematics," *Biological Theory*, Institute for Evolution and Cognition Research, Vol. 1, No. 4, 2006, p. 357-371



Simple Translation

Mutations hurt sperm/egg cells, so why are evolutionists assuming that ERVs will create new beneficial functions?



No one knows when, how, or why ERVs ended up in the sperm/egg cells to be passed on to the next generation. Though the Human Genome Project found many links between 24 families located in ERVs, this tells us nothing except that they found links between 24 families.

(See Luis P. Villarreal, "Persisting Viruses Could Play Role in Driving Host Evolution," *American Society for Microbiology*, Oct 12, 2001, retrieved Aug 12, 2011 [newsarchive.asm.org])

We do not know when this ERV virus was inserted into the genetic line, nor would it be possible to prove when it started because we have no past record to verify any theory of origin.

For example, let's say you had a huge pile of British-made swords from the 18th century, and someone makes the claim that one of the swords was used personally by King George III. Is that a possibility? Sure. Is it a possibility that **none** of them were used by King George? Sure. How could we prove it one way or another? We would have to go back and find recorded history to verify which one he used. If there were no recorded documents about which one he used, then it's not possible for us to prove it.

The evolutionist will claim that we can prove ancestry of ape-like creatures in the past by looking at how the ERVs line up, but this is where they will jump to conclusions without examining all the facts.

At this point, there are two factors we need to consider:

1) The retroviruses attach to what are called "hot spots."

"But although this concept of retrovirus selectivity is currently prevailing, practically all genomic regions were reported to be used as primary integration targets, however, with different preferences. There were identified 'hot spots' containing integration sites used up to 280 times more frequently than predicted mathematically."

-Eugene D. Sverdlov, "Perpetually Mobile Footprints of Ancient Infections in Human Genome," *FEBS Letters*, Vol. 428, Issues 1-2, May 22, 1998, p. 1-6

Simple Translation

ERVs can have their own favorite places to position themselves. These are called "hot spots," and retroviruses attach to these hot spots much more often than was originally predicted.

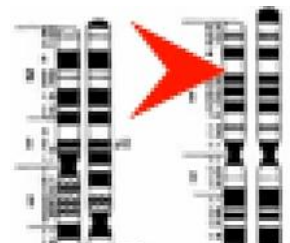
"[D]ifferent retroviruses have clear preferences for integration in or near particular chromosomal features... Research into the mechanisms of retroviral integration site selection has shed light on the phenomena of insertional mutagenesis and viral latency."

-M.K. Lewinski & F.D. Bushman, "Retroviral DNA Integration--Mechanism and Consequences," *PubMed.gov*, Infectious Disease Laboratory, Salk Institute for Biological Studies, 2005;55:147-81, PMID: 16291214

Simple Translation

ERVs have been shown to prefer "hot spot" attachment in DNA.

So the ERVs of humans, chimps, and other creatures are not lined up because they have a common ancestry. They are lined up because different ERVs prefer to attach to their favorite locations.



2) Similarity does not prove common ancestry; it proves common design. It is absurd to think that because ERVs cause harmful mutations in cells, we share ancestors with a banana.

(Read [The Incredible Edible DNA - What We Know About DNA](#) here at creationliberty.com for more details)

Evolutionists have claimed ancestral origin of ape-like ancestors by comparing human & chimp ERVs, but this is the exact same flawed argument as comparing DNA sequences of humans & chimps, and then claim a common ancestor. Evolutionists have demonstrated, many times, that their own logic leads them to conclude a common designer, but they purposefully deny their logic, and reach for common ancestry, on the basis that they don't want to give credibility to God and Bible.

For example, I have had many evolutionists compare some of my presentations to that of Dr. Kent Hovind:

"Kent Hovind parrot!"

"How old is this 2nd Kent Hovind?"

"Kent Hovind impersonation."

(All these comments, and many more exactly like this, can be found on comments of our youtube video: "Evolution is a Religion p1")

Stop and think about this for a moment: These people watched my video, and they watched Dr. Kent Hovind speak, and saw a similarity. They *IMMEDIATELY* concluded there is a common designer between the presentations, just based on the similarity. They are proving, by their own logic, they *KNOW* similarity proves common design, but, as we can see, they are rejecting their own logic, and *CHOOSING* to believe in evolution anyway, because it's the only way they can mentally reject God's Authority over their lives.

*Knowing this first, that there shall come in the last days scoffers, walking after their own lusts, And saying, Where is the promise of his coming? for since the fathers fell asleep, all things continue as they were from the beginning of the creation. For this they willingly are ignorant of, that by the word of God the heavens were of old, and the earth standing out of the water and in the water:
-2 Peter 3:3-5*

ERV similarities show us obvious evidence of common design among creatures, not common ancestry. The entire ERV argument they are making boils down to the same argument they are trying to make for DNA sequencing, and all of it is based on religious speculation, not on real facts.

(Read "The Incredible Edible DNA" here at creationliberty.com for more details)

DNA (and ERVs) is still a fairly new research, so when dealing with the DNA and molecular biology, we are still like babies in a car factory. Often, things that were once thought to be fact by evolutionists is proven wrong by new research as the next year rolls around, so jumping to conclusions before we have all the facts is not logical, and certainly bad science. However, what is really bad is when people reject their own logic and common sense to religiously believe in something they know is not possible, only so they can reject God's Authority over their lives.

For more technical research:

Linda K. Walkup, "[Junk DNA: Evolutionary Discards or God's Tools?](#),"
Technical Journal, 14(2), p. 18-30, August, 2000

Yingguang Liu & Charles Soper, "[The Natural History of Retroviruses](#)"
Answers Research Journal, Sept 30, 2009, p. 97-106