

Secrets of a cold—It helps explain why we have skin and bones

Next time you have a cold, rather than cursing, maybe you should thank the virus for making your skin. Genes borrowed from viruses seem to give cells the ability to grow into tissues and organs, and even reproduce sexually. Without these genes, animals could not have evolved beyond simple blobs of cells.

Our cells often need to fuse with other cells, making big cells with multiple nuclei. They do this with the help of proteins on their outer surfaces that stick the cell's walls together and then break them open, so the insides can mix. This mixing is essential for the production of most organs – such as muscles, skin and bone – and even for reproduction, when eggs and sperm fuse. For instance, fused cells form barriers in the placenta that prevent harmful chemicals crossing into the fetus, and internal tubes like blood vessels are also made of fused cells.

It is plausible that all cell fusion stems from viral genes slipping into our genome, says [Elizabeth Chen](#) of Johns Hopkins University in Baltimore, Maryland. “But the jury is still out.” Right now her research team is trying to find the protein responsible for cell fusion in muscle tissue. It is too early to tell if it came from a virus.

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