

## Nearly a quarter of cow genome comes from snakes

Genomes have been called recipe books for living things and according to science writer Ed Yong, many of them are in need of an editor. This is due to the fact that many specific pieces of DNA, once thought to be unique to certain species, have been found in other seemingly unrelated species. This is how scientists discovered that nearly a quarter of the cow genome comes from snakes.

“This type of ‘horizontal gene transfer’ (HGT) is an everyday event for bacteria, which can quickly pick up important abilities from each other by swapping DNA,” writes Yong. “Such trades are supposedly much rarer among more complex living things, but every passing year brings new examples of HGT among animals. For example, in 2008, Cedric Feschotte (now at the University of Utah) discovered a group of sequences that have jumped between several mammals, an anole lizard, and a frog.”

These new jumping genes, called DNA transposons, cut themselves out of surrounding DNA and paste themselves in somewhere new. Because of this system, they spread very quickly and can account for peculiarities such as the similarities between cow and snake genomes. This research, confirming the natural occurrence of genes “jumping” between species, also strikes a blow against the anti-GMO argument that genetic engineering violates nature by combining genes from different species.

**Read the full, original story:** [How a quarter of the cow genome came from snakes](#)

### **Additional Resources:**

- “[Genetically engineered animals: Are they the future?](#)” American Association of Animal Science
- “[The future of ancient DNA—Can we remake extinct species?](#)” Genetic Literacy Project
- “[New techniques swap out codons across the genome](#),” New Scientist