

Lizards' tail regeneration may help humans

By Jacqueline Howard, Huffington Post

When a lizard loses its tail, it grows back. But how?

Scientists have taken a big step closer to answering that question by pinpointing the genes responsible for tail regeneration. And the finding may yield important clues about how to regenerate limbs in humans.

For the study, the researchers took a close look at roughly 23,000 genes found in samples of sliced-up tails of green anole lizards. They found that at least 326 genes in specific spots along each tail were “turned on” during regeneration – suggesting that lizard DNA has a genetic “recipe” for regeneration.

“We were completely surprised,” study co-author Dr. Kenro Kusumi, a professor of life sciences at Arizona State University, told The Huffington Post in an email. “We were expecting all of the regeneration to be focused at the tip of the growing tail. Instead, the cells are dividing in distinct pockets including muscle, cartilage, spinal cord, and skin all throughout the tail.”

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