Mouse to man: The story of chromosomes
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U.S. scientists say sequencing human chromosome 17 and mouse chromosome 11 has offered unique insights into the evolution of the genome of higher mammals.

A Baylor College of Medicine researcher who participated in the effort says the work represents the first time a mouse chromosome has been completely sequenced and annotated.

That feat, says Professor James Lupski, presents scientists with the opportunity to intensively examine the similarities and differences in the DNA sequence of human and mouse.

Lupski was brought into the work while on sabbatical at the Wellcome Trust Sanger Institute in Cambridge, England. The Sanger Institute, the Broad Institute of MIT, and Harvard University were the primary institutions involved in the sequencing effort.

Lupski says the study presents a clearer picture of how genome changes through evolution.

"As we go up the mammalian line, and particularly in primate, it is obvious that rearrangement in the genome is the predominant force in the evolution of genomes," said Lupski. "Perhaps one way to evolve faster is not by making changes (the chemicals that make up DNA), but by changing chunks of genome."

The study appears in the journal Nature.

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