The alignment score of human-mouse sequences is 1490 through using BLOSUM62, the score of human-random sequences and mouse-random sequences are respectively -351 and -348. For the percentage of identical amino acids, the human-mouse sequences, human-random sequences and mouse-random sequences are respectively 96.54%, 2.77%, 3.11%.

From the above findings, it could be discovered that human and mouse genetic sequences were highly similar, and this was far beyond the reach of random genetic sequence. Not only the alignment but also the percentage of identical amino acids had big differences. The reason behind this probably was that mouse and humans shared a common ancestor, so their genes hadn't changed much to each other over the long haul. And these similar genes performed similar functions, such as respiration, vision, nervous system and so on. The remaining small amount of different genetic sequences was the distinction between humans and mice.