# Targeting RNA with CRISPR could reverse half of known pathogenic point mutations

The scope of CRISPR-based research has […] expanded because of the introduction of two new concepts. First, researchers began to manipulate RNA rather than DNA. In addition, small-scale DNA alterations became feasible and are slowly replacing the massive scope of changes that requires disrupting the entire DNA double helix structure.

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RNA serves as the intermediate communicator between DNA and proteins. If DNA is analogous to a library full of books, RNA would be the person in charge of recording a second copy of the contents in the books to share with others. As a consequence, although CRISPR generally results in a permanent change in the editing target, any similar manipulations that use RNA would only yield short-term changes.

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David Liu, currently a chemistry professor at Harvard University and an author of the Science study, explained why [the G-C to A-T] mutation is so harmful. “This class of mutation, changing G-C to A-T, accounts for about half of the 32,000 known pathogenic point mutations in humans,” Liu said to The Washington Post.

A problem associated with DNA editing is that it would be difficult to alter permanent changes. The RNA tool, in this regard, is useful because of its ability to edit a single base and potentially revert point mutations.

**The GLP aggregated and excerpted this blog/article to reflect the diversity of news, opinion, and analysis. Read full, original post:** Study shows CRISPR can reverse mutations