# Article information:

Genome‐wide off‐target analyses of CRISPR/Cas9‐mediated T‐cell receptor engineering in primary human T cells - PMC  
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8784854/>

# Article summary:

1. CRISPR/Cas9-mediated double-strand breaks in the DNA enable knockout or knock-in engineering of the T-cell receptor (TCR) to redirect specificity, ablate alloreactivity and bring significant progress to emerging adoptive T-cell transfer (ACT) approaches.

2. Whole genome sequencing and targeted deep sequencing were used to analyse whether CRISPR/Cas9-mediated DNA double-strand break at the TCR locus is associated with off-target events in human primary T cells.

3. The combinatorial approach of whole genome sequencing and targeted deep sequencing confirmed highly specific genetic engineering using CRISPR/Cas9-mediated TCR knockout without potentially harmful exonic off-target effects.

# Article rating:

May be slightly imbalanced: The article presents the information in a generally reliable way, but there are minor points of consideration that could be explored further or claims that are not fully backed by appropriate evidence. Some perspectives may also be omitted, and you are encouraged to use the research topics section to explore the topic further.

# Article analysis:

The article provides a comprehensive overview of the use of CRISPR/Cas9 technology for genetic engineering of the TCR in human primary T cells, as well as an analysis of potential off-target effects. The authors present their findings in a clear and concise manner, providing evidence for their claims through detailed descriptions of their methods and results.

The article does not appear to be biased or one sided, as it presents both sides of the argument equally. It also does not contain any promotional content or partiality towards any particular viewpoint. Furthermore, possible risks are noted throughout the article, such as potential off target effects from CRISPR/Cas9 technology that could lead to unintended consequences if not properly monitored.

The only potential issue with this article is that it does not explore any counterarguments or missing points of consideration regarding its findings. While this is understandable given the scope of the article, it would have been beneficial for readers if these had been discussed in more detail.

# Topics for further research:

* CRISPR/Cas9 off-target effects
* CRISPR/Cas9 safety considerations
* CRISPR/Cas9 gene editing applications
* CRISPR/Cas9 TCR engineering
* CRISPR/Cas9 ethical implications
* CRISPR/Cas9 potential risks

# Report location:

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