# Article information:

TadA orthologs enable both cytosine and adenine editing of base editors | Nature Communications  
<https://www.nature.com/articles/s41467-023-36003-3>

# Article summary:

1. Base editors require distinct deaminases for cytosine or adenine editing, leading to various off-target effects that limit their utility.

2. TadA deaminases represent promising candidates for the generation of ABEs, CBEs, and ACBEs, but wild-type ecTadA requires extensive engineering for adenine editing at the DNA level.

3. An internal fusion strategy with various TadA orthologs containing just one or two amino acid substitutions enables the generation of functional base editors with minimized RNA off-target effects, providing a simplified strategy for orthologous TadA screening and engineering.

# Article rating:

Appears moderately imbalanced: The article provides some useful information, but is missing several important points or pieces of evidence that would be required to present the discussed topics in a balanced and reliable way. You are encouraged to seek a more balanced perspective on the presented issues by exploring the provided research topics and looking at different information sources.

# Article analysis:

作为一篇科学研究论文，该文章并没有明显的偏见或宣传内容。然而，它可能存在一些片面报道和缺失的考虑点。

首先，文章强调了基础编辑器的局限性和离靶效应的问题，并介绍了改进编辑器的方法。然而，它没有探讨这些改进是否会引入新的风险或副作用。此外，文章也没有平等地呈现双方观点，只关注了编辑器的优势和潜在应用。

其次，在介绍TadA deaminases时，文章提到了ecTadA(VN)需要复杂的工程才能实现腺嘌呤编辑。然而，它没有探讨这种工程是否会引入其他问题或不良影响。此外，文章也没有提及其他可能更有效或更安全的deaminase候选者。

最后，在描述实验结果时，文章强调了使用TadA orthologs生成各种类型的基础编辑器所需的少量氨基酸替换。然而，它没有探讨这些替换是否会对蛋白质结构、功能或稳定性产生不利影响。

总之，尽管该文章并未明显偏袒任何一方或宣传特定观点，但仍存在一些片面报道和缺失考虑点。未来类似研究应该更加全面地评估新技术和方法引入可能带来的风险和副作用，并探索更多可行且安全的解决方案。

# Topics for further research:

* Potential risks and side effects of improved editors
* Balanced presentation of both sides' views
* Other potential deaminase candidates
* Possible negative effects of engineering ecTadA(VN)
* Adverse effects on protein structure
* function
* or stability from amino acid substitutions
* Comprehensive evaluation of new technologies and solutions

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