# Article information:

Correction of the pathogenic mutation in TGM1 gene by adenine base editing in mutant embryos - ScienceDirect  
<https://www.sciencedirect.com/science/article/pii/S1525001621002598?via%3Dihub>

# Article summary:

1. A couple diagnosed with lamellar ichthyosis had two pregnancy losses due to a heterozygous c.607C>T mutation in the TGM1 gene.

2. Two different adenine base editors (ABEs) combined with related truncated single guide RNA (sgRNA) were used to repair the pathogenic mutation in mutant zygotes.

3. Whole-genome sequencing and deep sequencing analysis demonstrated precise DNA editing, suggesting the possibility of correcting genetic mutations in embryos with the ABE system.

# 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 is generally reliable and trustworthy, as it provides evidence for its claims through whole-genome sequencing and deep sequencing analysis that demonstrate precise DNA editing. The article also provides detailed information on the methods used to repair the pathogenic mutation in mutant zygotes, which adds to its credibility. However, there are some potential biases that should be noted. For example, the article does not explore any possible risks associated with using ABEs to correct genetic mutations in embryos, nor does it present both sides of this issue equally or explore any counterarguments that may exist. Additionally, there is no discussion of how this research could be applied in a clinical setting or what implications it may have for future treatments of lamellar ichthyosis or other diseases caused by genetic mutations. Finally, while the article is well-written and informative, it does contain some promotional content that could be seen as biased towards advocating for further research into using ABEs to correct genetic mutations in embryos.

# Topics for further research:

* Risks of using ABEs to correct genetic mutations in embryos
* Clinical applications of ABE-mediated gene editing
* Implications of ABE-mediated gene editing for lamellar ichthyosis
* Counterarguments to ABE-mediated gene editing in embryos
* Ethical considerations of ABE-mediated gene editing
* Regulatory framework for ABE-mediated gene editing

# Report location:

<https://www.fullpicture.app/item/8e5779e9390fce4a1c7c67a9f2d96a19>