

# Corrigendum

## Development of synthetic selfish elements based on modular nucleases in *Drosophila melanogaster*

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The authors have accidentally duplicated the ZFN-AAVS1-LONG panel in Figure 5 of the above article. A new figure is provided below.

This error does not affect the results or conclusion of the article.

The authors wish to apologise to readers for the inconvenience caused.

<b>ZFN-AAVS1</b>	
Deletions	
Reference	ATGCCTAGGGATAAGCCCTCC <u>ACCCACAGTGGGCCAC</u> TAGGGACAGGATTGGTGACAGAAAATAACAGGTAAT
A1	ATGCCTAGGGATAAGCCCTCCACCCACAGTGGG-----TAGGGACAGGATTGGTGACAGAAAATAACAGGTAAT -5 (+1)
A2	ATGCCTAGGGATAAGCCCTCCACCCACAGTGG-----ATTGGTGACAGAAAATAACAGGTAAT -16
A3	ATGCCTAGGGATAAGCCCTCCACCCACAGTGG-----GACAGGATTGGTGACAGAAAATAACAGGTAAT -10 [x2]
A4	ATGCCTAGGGATAAGCCCTCCACCCACAGTGG-----GGGACAGGATTGGTGACAGAAAATAACAGGTAAT -8
B7	ATGCCTAGGGATAAGCCCTCCACCCACAGTGG-----ACAGGATTGGTGACAGAAAATAACAGGTAAT -11
A2*	ATGCCTAGGGATAAGCCCTCCACCCACAGTGGGCC--TAGGGACAGGATTGGTGACAGAAAATAACAGGTAAT -1 [x2]
A7*	ATGCCTAGGGATAAGCCCTCCACCCAC-----TAGGGACAGGATTGGTGACAGAAAATAACAGGTAAT -11
B2*	ATGCCTAGGGATAAGCCCTCCACCCACAGTGGG--TAGGGACAGGATTGGTGACAGAAAATAACAGGTAAT -4
A5*	ATGCCTAGGGATAAGCCCTCCACCCACAGTGGCC--ACTAGGGACAGGATTGGTGACAGAAAATAACAGGTAAT -1 [x2]
B4*	ATGCCTAGGGATAAGCCCTCCACCCACAGTGG--CCACTAGGGACAGGATTGGTGACAGAAAATAACAGGTAAT -1
B7*	ATGCCTAGGGATAAGCCCTCCACCCACAGTGG--CACTAGGGACAGGATTGGTGACAGAAAATAACAGGTAAT -2
Insertions	
B8	ATGCCTAGGGATAAGCCCTCCACCCACAGTGC <u>CAGGAAGTACCTGT</u> ACAGGGACAGGATTGGTGACAGAAAATAACAGGTAAT -8 (+19) [x2]
A8*	ATGCCTAGGGATAAGCCCTCCACCCACAGTGGGCC <u>ACT</u> TAGGGACAGGATTGGTGACAGAAAATAACAGGTAAT +1
<b>ZFN-AAVS1-LONG</b>	
Deletions	
Reference	ATGCCTAGGGATAAGCCCTCC <u>ACCCACAGTGGGCCAC</u> TAGGGACAGGATTGGTGACAGAAAATAACAGGTAAT
A13	ATGCCTAGGGATAAGCCCTCCACCCACAGTGGG-----ACAGGATTGGTGACAGAAAATAACAGGTAAT -10 [x3]
B5	ATGCCTAGGGATAAGCCCTCCACCCACAGTGGGCC--ACTAGGGACAGGATTGGTGACAGAAAATAACAGGTAAT -1
B14	ATGCCTAGGGATAAGCCCTCCACCCACAGTGGGCCA--TAGGGACAGGATTGGTGACAGAAAATAACAGGTAAT -1 [x2]
A8	ATGCCTAGGGATAAGCCCTCCACCCACAGTGGGCC--TAGGGACAGGATTGGTGACAGAAAATAACAGGTAAT -1
A7	ATGCCTAGGGATAAGCCCTCCACCCACAGTGG-----TAGGGACAGGATTGGTGACAGAAAATAACAGGTAAT -76
A2	ATGCCTAGGGATAAGCCCTCCACCCACAGT-----AGGGACAGGATTGGTGACAGAAAATAACAGGTAAT -9
B7	ATGCCTAGGGATAAGCCCTCCACCCACAGTGG-----GGGACAGGATTGGTGACAGAAAATAACAGGTAAT -62
B9	ATGCCTAGGGATAAGCCCTCCACCCACAGTGG-----GGGACAGGATTGGTGACAGAAAATAACAGGTAAT -7
Insertions	
A4	ATGCCTAGGGATAAGCCCTCCACCCACAGTGGGCC <u>ACT</u> TAGGGACAGGATTGGTGACAGAAAATAACAGGTAAT +1 [x2]
B4	ATGCCTAGGGATAAGCCCTCCACCCACAGTGGGCC <u>CTC</u> CCAC--AGGGACAGGATTGGTGACAGAAAATAACAGGTAAT (-2)+3
<b>TALEN</b>	
Deletions	
Reference	ATGCCTAGGGATAA <u>TTTTCTGCACCAATCCT</u> GAAGCGCGCCTTACAGGATTGGTGACAGAAAATGCATAACAGGTAATCAGGTTGAGCAAGG
A7	ATGCCTAGGGATAA <u>TTTTCTGCACCAATCCTGAAGCGG</u> -----ATTGGTGACAGAAAATGCATAACAGGTAATCAGGTTGAGCAAGG -11 [x2]
A6	ATGCCTAGGGATAA <u>TTTTCTGCACCAATCCTGAAGCGG</u> -----ATTGGTGACAGAAAATGCATAACAGGTAATCAGGTTGAGCAAGG -1
A11	ATGCCTAGGGATAA <u>TTTTCTGCACCAATCCTGAAGCGG</u> -----ATTGGTGACAGAAAATGCATAACAGGTAATCAGGTTGAGCAAGG -305
A2*	ATGCCTAGGGATAA <u>TTTTCTGCACCAATCCTGAAGC</u> -----AAGG -53
A3*	ATGCCTAGGGATAA <u>TTTTCTGCACCAATCCTGAAG</u> -----CGCTTACAGGATTGGTGACAGAAAATGCATAACAGGTAATCAGGTTGAGCAAGG -4
A5*	ATGCCTAGGGATAA <u>TTTTCTGCACCAATCC</u> -----AGGATTGGTGACAGAAAATGCATAACAGGTAATCAGGTTGAGCAAGG -16
A10*	----->110
A11*	ATGCCTAGGGATAA <u>TTTTCTGCACCAATCCTGAAGC</u> -----CTTACAGGATTGGTGACAGAAAATGCATAACAGGTAATCAGGTTGAGCAAGG (+2)-7 [x2]
A13*	ATGCCTAGGGATAA <u>TTTTCTGCACCAATCCTGAAGCG</u> -----ATTGGTGACAGAAAATGCATAACAGGTAATCAGGTTGAGCAAGG -119
A14*	----- -147
A16*	ATGCCTAGGGATAA <u>TTTTCTGCACCAATCCTGAAGCGCGG</u> -----GGGACAGGATTGGTGACAGAAAATGCATAACAGGTAATCAGGTTGAGCAAGG -91
A17*	ATGCCTAGGGATAA <u>TTTTCTGCACCAATCCTGAAGC</u> -----CTTACAGGATTGGTGACAGAAAATGCATAACAGGTAATCAGGTTGAGCAAGG (+2)-7 [x2]
H2^	ATGCCTAGGGATAA <u>TTTTCTGCACCAATCCTGAAG</u> -----AAAAAAGGTAATCAGGTTGAGCAAGG -37 (+6)
H1^	ATGCCTAGGGATAA <u>TTTTCTGCACCAATCCTGAAGCG</u> -----ATTACAGGATTGGTGACAGAAAATGCATAACAGGTAATCAGGTTGAGCAAGG -5 (+1)
H7^	ATGCCTAGGGATAA <u>TTTTCTGCACCAATCCTGA</u> -----CAGGTTGAGCAAGG -46
Insertions	
A6*	ATGCCTAGGGATAA <u>TTTTCTGCACCAATCCTGAAGCGCGCGGGCGCGCGCGCTGGCCTCCTCGAGGACGTCATCAAGGAGTTTCATGC</u> +237 (from RFP)
D2*	ATGCCTAGGGATAA <u>TTTTCTGCACCAATCCTGAAGCGGC</u> <u>ATCCGAGAAACAAGATAAATCTTTAATAAGTTGTCGCGCTGCCTAAAAGTCA</u> +171 (from Rcd-1r)
D3*	ATGCCTAGGGATAA <u>TTTTCTGCACCAATCCTGAAGCGCGCGGGCGCGCGCGCTGGCCTCCTCGAGGACGTCATCAAGGAGTTTCATGC</u> +385 (from RFP)
H3^	ATGCCTAGGGATAA <u>TTTTCTGCACCAATCCTGAAGC</u> <u>CAATCTT</u> ACAGGATTGGTGACAGAAAATGCATAACAGGTAATCAGGTTGAGCAAGG +6 (-5)

**Figure 5.** Sequencing characterization of imprecise NHEJ events originating from TALEN and ZFN activity, as indicated. The first line shows the GFP coding sequence that includes the nuclease target site (the nucleases binding sequences are underlined). The majority of repair events following ZFN cleavage leave microdeletions in proximity of the cleavage site whereas in the case of TALEN, the repaired chromosome exhibits bigger deletion (up to 300 bp) mainly at the 3' of the cleavage site. In few cases, partial homologous recombination resulted in segmented of donor cassette being inserted in the target site, from either side of the DSB (RFP or Rcd-1r sequence). Insertions are highlighted. The numbers of identical repair events are indicated in squared brackets on the right.