

# *A Consensus Model of Homology-Directed Repair Initiated by CRISPR/Cas Activity*

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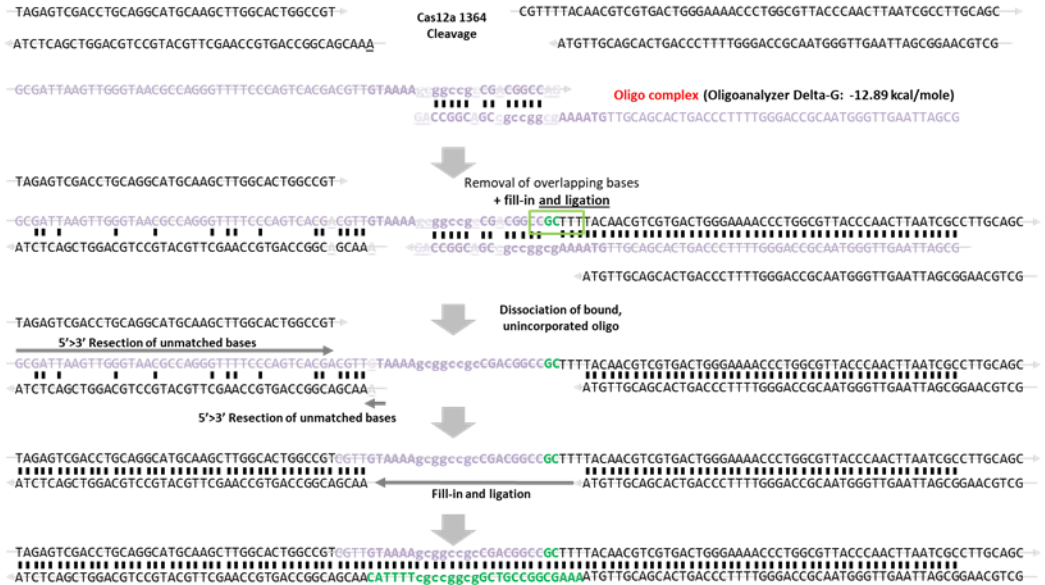
## **SUPPLEMENTAL MATERIAL**

# Experiment Goal: Asymmetric Insertion

Output Sequences	Ref.	TAGAGTCGACCTGCAGGCATGCAAGCTTGGCACTGGCCGTCGTTTACAACGTCGTGACTGGGAAAACCTGGCG		TTACAACGTCGTGACTGGGAAAACCTGGCG
		TAGAGTCGACCTGCAGGCATGCAAGCTTGGCACTGGCCGTCG	TT	TTACAACGTCGTGACTGGGAAAACCTGGCG
		TAGAGTCGACCTGCAGGCATGCAAGCTTGGCACTGGCCGTCG	TT	TTACAACGTCGTGACTGGGAAAACCTGGCG
		TAGAGTCGACCTGCAGGCATGCAAGCTTGGCACTGGCCGTCG	TT	TTACAACGTCGTGACTGGGAAAACCTGGCG
		TAGAGTCGACCTGCAGGCATGCAAGCTTGGCACTGGCCGTCG	TT	TTACAACGTCGTGACTGGGAAAACCTGGCG
		TAGAGTCGACCTGCAGGCATGCAAGCTTGGCACTGGCCGTCG	TT	TTACAACGTCGTGACTGGGAAAACCTGGCG
		TAGAGTCGACCTGCAGGCATGCAAGCTTGGCACTGGCCGTCG	TT	TTACAACGTCGTGACTGGGAAAACCTGGCG
		TAGAGTCGACCTGCAGGCATGCAAGCTTGGCACTGGCCGTCG	TT	TTACAACGTCGTGACTGGGAAAACCTGGCG
		TAGAGTCGACCTGCAGGCATGCAAGCTTGGCACTGGCCGTCG	TT	TTACAACGTCGTGACTGGGAAAACCTGGCG
		TAGAGTCGACCTGCAGGCATGCAAGCTTGGCACTGGCCGTCG	TT	TTACAACGTCGTGACTGGGAAAACCTGGCG
		TAGAGTCGACCTGCAGGCATGCAAGCTTGGCACTGGCCGTCG	TT	TTACAACGTCGTGACTGGGAAAACCTGGCG
		TAGAGTCGACCTGCAGGCATGCAAGCTTGGCACTGGCCGTCG	TT	TTACAACGTCGTGACTGGGAAAACCTGGCG
		TAGAGTCGACCTGCAGGCATGCAAGCTTGGCACTGGCCGTCG	TT	TTACAACGTCGTGACTGGGAAAACCTGGCG
		TAGAGTCGACCTGCAGGCATGCAAGCTTGGCACTGGCCGTCG	TT	TTACAACGTCGTGACTGGGAAAACCTGGCG
		TAGAGTCGACCTGCAGGCATGCAAGCTTGGCACTGGCCGTCG	TT	TTACAACGTCGTGACTGGGAAAACCTGGCG

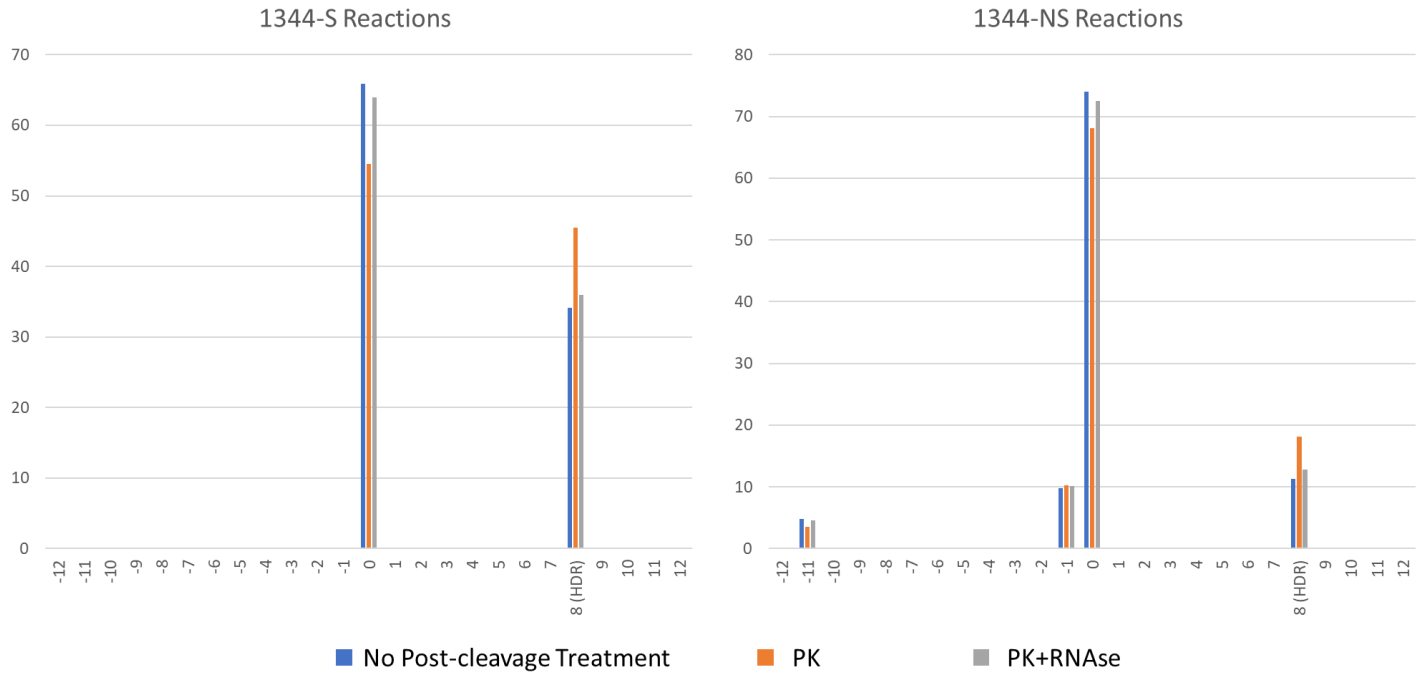
10/50 HDR-NS

Plasmid  
Oligo  
Mismatch  
De novo



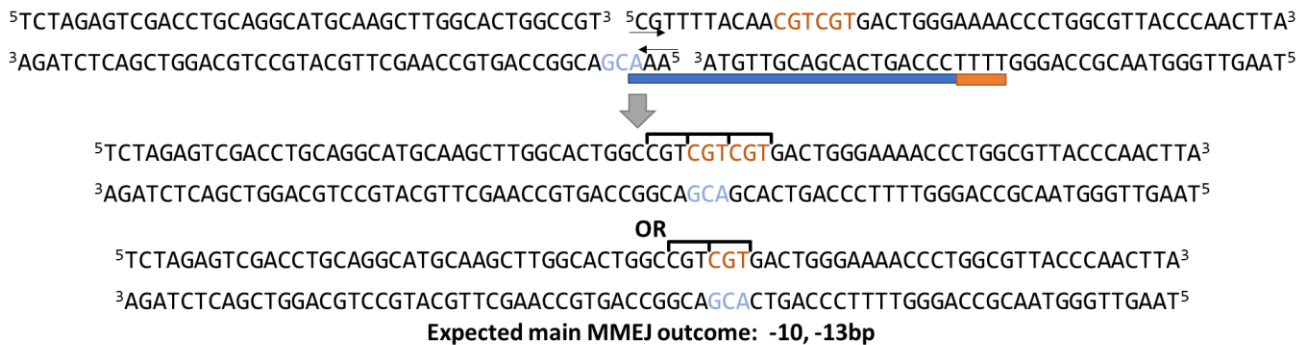
Supplemental Figure 1: Analysis and pathway of atypical repair resulting in ssODN dimer-driven repair outcomes.

# Sanger 1344-S/NS Reaction Parameters Comparison

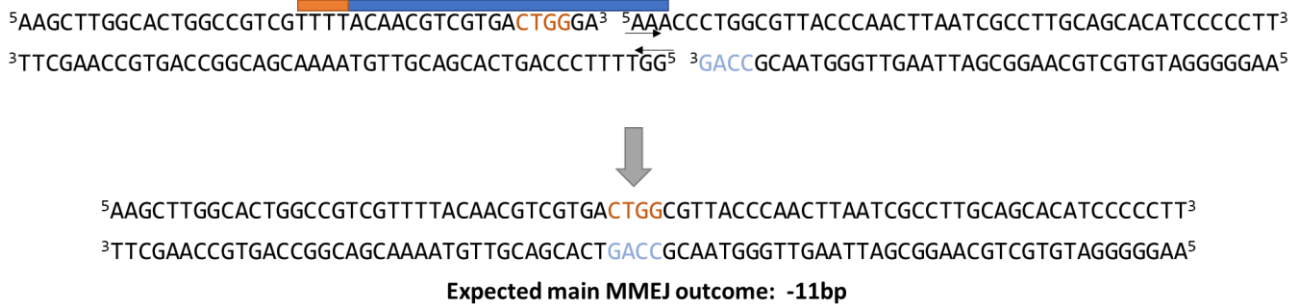


Supplemental Figure 2: Persistence of Strand Bias within *In Vitro* gene editing reactions in response to post-cleavage Cas12a degradation

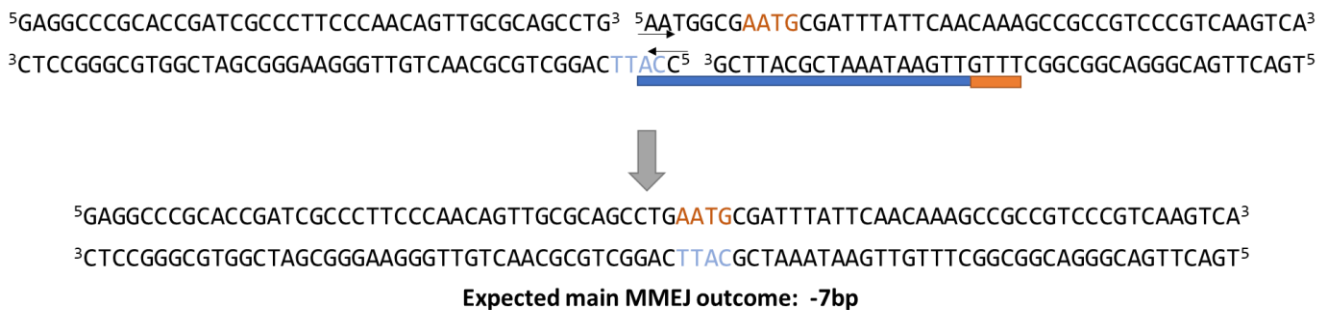
### 1364 Microhomology Sites



### 1344 Microhomology Sites



### 1228 Microhomology Sites



Supplementary Figure 3: Suggested patches of microhomology responsible or non-HDR indel events exhibited in Figures 3 and 4.