## **Description of Additional Supplementary Files**

File Name: Supplementary Data 1

Description: Cas9 protein identity matrix.

File Name: Supplementary Data 2

Description: List of analysed Cas9 protein, gene, protein, and sgRNA sequences.

File Name: Supplementary Data 3

Description: Position frequency matrices (PFM) of Cas9 ortholog PAM recognition.

File Name: Supplementary Data 4

Description: List of PAM interaction domain sequences and cluster information.

File Name: Supplementary Data 5

Description: Target DNA cleavage patterns produced by Cas9 orthologs.

File Name: Supplementary Data 6

Description: List of Cas9 protein sequences used to construct the phylogenetic tree.

File Name: Supplementary Data 7

Description: Sequences of oligonucleotides and substrates used for this study.