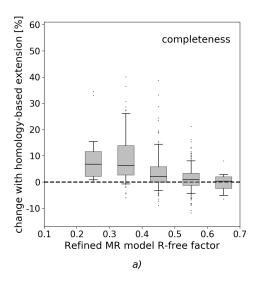


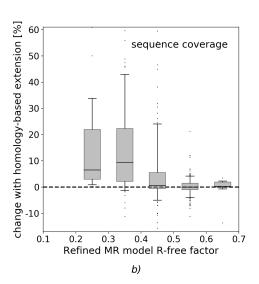
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Supporting information for article:

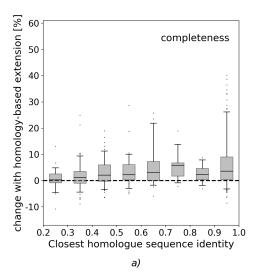
The use of local structural similarity of distant homologues for crystallographic model building from a molecular-replacement solution

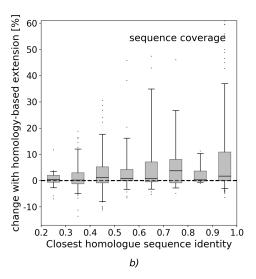
Grzegorz Chojnowski, Koushik Choudhury, Philipp Heuser, Egor Sobolev, Joana Pereira, Umut Oezugurel and Victor S. Lamzin



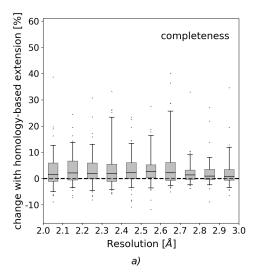


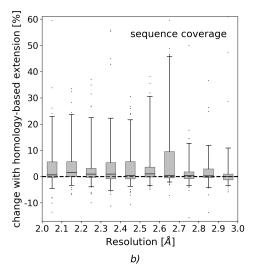
**Figure S1** The improvement in model building for test set II at a resolution between 2 and 3 Å as a function of refined MR model R-free factor. a) the fraction of residues built; b) sequence coverage. Box plot whiskers correspond to the 5<sup>th</sup> and 95<sup>th</sup> percentile.



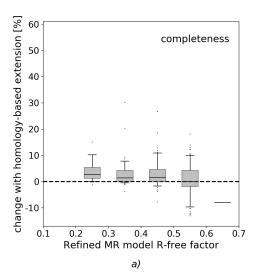


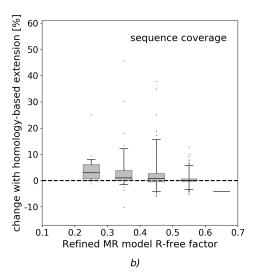
**Figure S2** The improvement in model building for test set II at a resolution between 2 and 3 Å as a function of sequence identity to a closest homologue used for model extension. a) the fraction of residues built; b) sequence coverage. Box plot whiskers correspond to the  $5^{th}$  and  $95^{th}$  percentile.



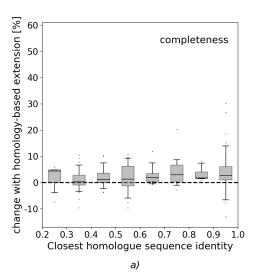


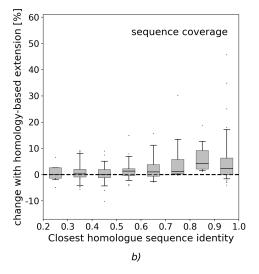
**Figure S3** The improvement in model building for test set II at a resolution between 2 and 3 Å as a function of resolution. a) the fraction of residues built; b) sequence coverage. Box plot whiskers correspond to the  $5^{th}$  and  $95^{th}$  percentile.



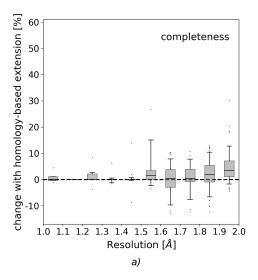


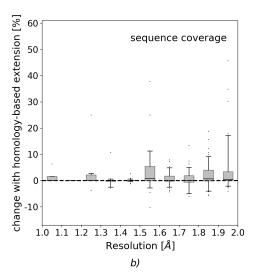
**Figure S4** The improvement in model building for test set II at a resolution between 1 and 2 Å as a function of refined MR model R-free factor. a) the fraction of residues built; b) sequence coverage. Box plot whiskers correspond to the 5<sup>th</sup> and 95<sup>th</sup> percentile.



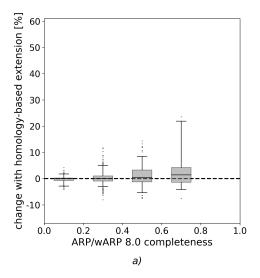


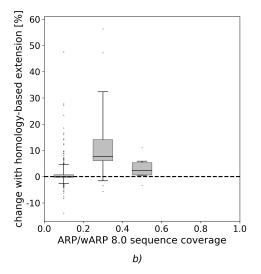
**Figure S5** The improvement in model building for test set II at a resolution between 1 and 2 Å as a function of of sequence identity to a closest homologue used for model extension. a) the fraction of residues built; b) sequence coverage. Box plot whiskers correspond to the 5<sup>th</sup> and 95<sup>th</sup> percentile.



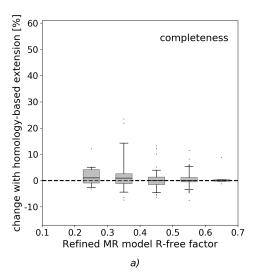


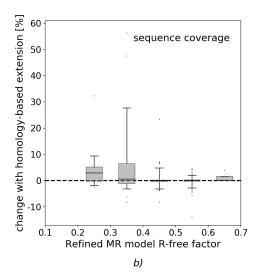
**Figure S6** The improvement in model building for test set II at a resolution between 1 and 2 Å as a function of resolution. a) the fraction of residues built; b) sequence coverage. Box plot whiskers correspond to the 5<sup>th</sup> and 95<sup>th</sup> percentile.



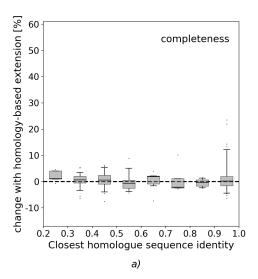


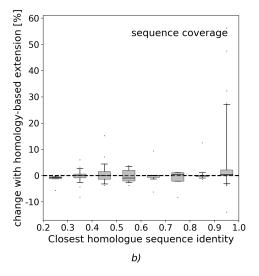
**Figure S7** The improvement in model building for test set II at a resolution between 3 and 4 Å as a function of a) model completeness and b) sequence coverage. Box plot whiskers correspond to the  $5^{th}$  and  $95^{th}$  percentile.



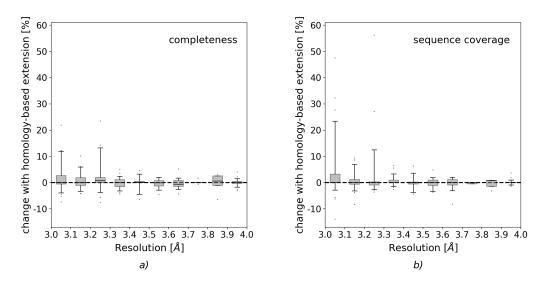


**Figure S8** The improvement in model building for test set II at a resolution between 3 and 4 Å as a function of refined MR model R-free factor. a) the fraction of residues built; b) sequence coverage. Box plot whiskers correspond to the 5<sup>th</sup> and 95<sup>th</sup> percentile.





**Figure S9** The improvement in model building for test set II at a resolution between 3 and 4 Å as a function of sequence identity to a closest homologue used for model extension. a) the fraction of residues built; b) sequence coverage. Box plot whiskers correspond to the  $5^{th}$  and  $95^{th}$  percentile.



**Figure S10** The improvement in model building for test set II at a resolution between 3 and 4  $\mathring{\rm A}$  as a function of resolution. a) the fraction of residues built; b) sequence coverage. Box plot whiskers correspond to the 5<sup>th</sup> and 95<sup>th</sup> percentile.