SUPPLEMENTARY FIGURES

Exploring molecular variation in Schistosoma japonicum in China

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Supplementary Figure 1 | Integrity of archived *Schistosoma japonicum* genomic DNA. Genomic DNA was isolated from pooled adult *S. japonicum* (i.e. male and female *en copula*; n = 10 pairs) representing each of the populations Sj1 to Sj7. Genomic DNA samples were subjected to electrophoresis in an agarose gel (0.7%); Lambda DNA/*Hind*III was used as a molecular weight marker (M).



100.0

Supplementary Figure 2 | Phylogenetic relationships of Schistosoma japonicum populations based on analyses of data for 12 protein-encoding mitochondrial genes. The consensus trees from separate analyses of nucleotide (A, C and E) or amino acid (B, D and F) sequence data using the Bayesian inference (A and B), maximum likelihood (C and D) and maximum parsimony (E and F) tree-building methods. Posterior probabilities (pp) or nodal support values are indicated. Groups with strong nodal support are highlighted in grey. GenBank database accession numbers of individual gene sequences are at the ends of individual branches.



Supplementary Figure 3 Genetic variability in immunogenic proteins among seven distinct populations of japonicum. Schistosoma Alignment of the nucleotide sequences encoding a tetraspanin (Sjconsensus TSP2) (A; Sjp_0118220) and *Sm*29-like (B; Sjp 0041250) individual protein among populations. Nucleotide logos represent the frequency of bases at sites containing single nucleotide polymorphisms (SNPs) for individual populations; Amino acid logos represent the consensus for sequence all seven populations. SNPs associated with a similar (yellow star) or distinct (white star) amino acid alteration are indicated. Each amino acid logo is coloured according to its chemical characteristics: polar residues (G, S, T, Y & C) are green, neutral (Q & N) are purple, basic (K, R & H) are blue, acidic (D & E) are red, and hydrophobic (A, V, L, I, P, W, F & M) are black. Immunogenic domains tested vaccination in experiments mansoni³⁶ against S. are highlighted in grey.