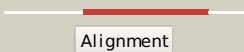

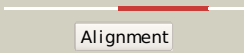

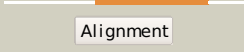





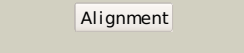



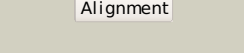



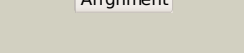

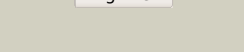














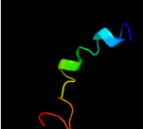






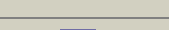
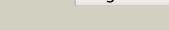
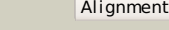
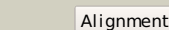
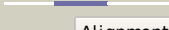




# Phyre2

|               |                             |
|---------------|-----------------------------|
| Email         | I.a.kelley@imperial.ac.uk   |
| Description   | P0CE59                      |
| Date          | Thu Jan 5 11:30:29 GMT 2012 |
| Unique Job ID | df2d6757e3db0b80            |

Detailed template information

| #  | Template                | Alignment Coverage   | 3D Model  | Confidence | % i.d. | Template Information  |
|----|-------------------------|--|---|------------|--------|---|
| 1  | <a href="#">d1musa_</a> | <br>Alignment   |    | 98.2       | 12     | <b>Fold:</b> Ribonuclease H-like motif<br><b>Superfamily:</b> Ribonuclease H-like<br><b>Family:</b> Transposase inhibitor (Tn5 transposase)   |
| 2  | <a href="#">d1b7ea_</a> | <br>Alignment   |    | 97.5       | 13     | <b>Fold:</b> Ribonuclease H-like motif<br><b>Superfamily:</b> Ribonuclease H-like<br><b>Family:</b> Transposase inhibitor (Tn5 transposase)   |
| 3  | <a href="#">d1cxqa_</a> | <br>Alignment   |    | 84.2       | 22     | <b>Fold:</b> Ribonuclease H-like motif<br><b>Superfamily:</b> Ribonuclease H-like<br><b>Family:</b> Retroviral integrase, catalytic domain  |
| 4  | <a href="#">c3hefB_</a> | <br>Alignment   |   | 79.7       | 14     | <b>PDB header:</b> viral protein<br><b>Chain:</b> B: <b>PDB Molecule:</b> gene 1 protein;<br><b>PDBTitle:</b> crystal structure of the bacteriophage sf6 terminase small2 subunit   |
| 5  | <a href="#">d1asua_</a> | <br>Alignment |  | 70.0       | 20     | <b>Fold:</b> Ribonuclease H-like motif<br><b>Superfamily:</b> Ribonuclease H-like<br><b>Family:</b> Retroviral integrase, catalytic domain  |
| 6  | <a href="#">c3nf9A_</a> | <br>Alignment |  | 47.7       | 14     | <b>PDB header:</b> hydrolase/hydrolase inhibitor<br><b>Chain:</b> A: <b>PDB Molecule:</b> integrase;<br><b>PDBTitle:</b> structural basis for a new mechanism of inhibition of hiv integrase2 identified by fragment screening and structure based design   |
| 7  | <a href="#">d1a9xa1</a> | <br>Alignment |  | 39.7       | 16     | <b>Fold:</b> Carbamoyl phosphate synthetase, large subunit connection domain<br><b>Superfamily:</b> Carbamoyl phosphate synthetase, large subunit connection domain<br><b>Family:</b> Carbamoyl phosphate synthetase, large subunit connection domain   |
| 8  | <a href="#">d1c0ma2</a> | <br>Alignment |  | 35.3       | 15     | <b>Fold:</b> Ribonuclease H-like motif<br><b>Superfamily:</b> Ribonuclease H-like<br><b>Family:</b> Retroviral integrase, catalytic domain  |
| 9  | <a href="#">c1c0mA_</a> | <br>Alignment |  | 30.6       | 19     | <b>PDB header:</b> transferase<br><b>Chain:</b> A: <b>PDB Molecule:</b> protein (integrase);<br><b>PDBTitle:</b> crystal structure of rsv two-domain integrase  |
| 10 | <a href="#">d1slma1</a> | <br>Alignment |  | 29.6       | 27     | <b>Fold:</b> PGBD-like<br><b>Superfamily:</b> PGBD-like<br><b>Family:</b> MMP N-terminal domain   |
| 11 | <a href="#">c3ohwB_</a> | <br>Alignment |  | 22.4       | 16     | <b>PDB header:</b> protein binding<br><b>Chain:</b> B: <b>PDB Molecule:</b> phycobilisome lcm core-membrane linker polypeptide;<br><b>PDBTitle:</b> x-ray structure of phycobilisome lcm core-membrane linker polypeptide2 (fragment 721-860) from synechocystis sp. pcc 6803, northeast3 structural genomics consortium target sgr209e |

|    |                         |  |   |      |    |  |
|----|-------------------------|--|---|------|----|--|
| 12 | <a href="#">c2ky4A_</a> | <br>Alignment    |     | 22.4 | 16 | <b>PDB header:</b> photosynthesis<br><b>Chain:</b> A: <b>PDB Molecule:</b> phycobilisome linker polypeptide;<br><b>PDBTitle:</b> solution nmr structure of the pbs linker domain of phycobilisome2 linker polypeptide from anabaena sp. northeast structural genomics3 consortium target nsr123e   |
| 13 | <a href="#">c2l3wA_</a> | <br>Alignment   |    | 20.8 | 20 | <b>PDB header:</b> photosynthesis<br><b>Chain:</b> A: <b>PDB Molecule:</b> phycobilisome rod linker polypeptide;<br><b>PDBTitle:</b> solution nmr structure of the pbs linker domain of phycobilisome rod2 linker polypeptide from synechococcus elongatus, northeast structural3 genomics consortium target snr168a   |
| 14 | <a href="#">d1k78a1</a> | <br>Alignment   |    | 19.8 | 19 | <b>Fold:</b> DNA/RNA-binding 3-helical bundle<br><b>Superfamily:</b> Homeodomain-like<br><b>Family:</b> Paired domain  |
| 15 | <a href="#">c3pruD_</a> | <br>Alignment   |    | 19.4 | 13 | <b>PDB header:</b> photosynthesis<br><b>Chain:</b> D: <b>PDB Molecule:</b> phycobilisome 32.1 kda linker polypeptide, phycocyanin-<br><b>PDBTitle:</b> crystal structure of phycobilisome 32.1 kda linker polypeptide,2 phycocyanin-associated, rod 1 (fragment 14-158) from synechocystis3 sp. pcc 6803, northeast structural genomics consortium target sgr182a  |
| 16 | <a href="#">c2l06A_</a> | <br>Alignment   |    | 18.7 | 22 | <b>PDB header:</b> protein binding<br><b>Chain:</b> A: <b>PDB Molecule:</b> phycobilisome lcm core-membrane linker polypeptide;<br><b>PDBTitle:</b> solution nmr structure of the pbs linker polypeptide domain (fragment2 254-400) of phycobilisome linker protein apce from synechocystis sp.3 pcc 6803. northeast structural genomics consortium target sgr209c |
| 17 | <a href="#">d1hyva_</a> | <br>Alignment   |    | 18.2 | 16 | <b>Fold:</b> Ribonuclease H-like motif<br><b>Superfamily:</b> Ribonuclease H-like<br><b>Family:</b> Retroviral integrase, catalytic domain   |
| 18 | <a href="#">c1q2iA_</a> | <br>Alignment |  | 17.8 | 28 | <b>PDB header:</b> antitumor protein<br><b>Chain:</b> A: <b>PDB Molecule:</b> pnc27;<br><b>PDBTitle:</b> nmr solution structure of a peptide from the mdm-2 binding2 domain of the p53 protein that is selectively cytotoxic to3 cancer cells  |
| 19 | <a href="#">d1exqa_</a> | <br>Alignment |  | 16.0 | 17 | <b>Fold:</b> Ribonuclease H-like motif<br><b>Superfamily:</b> Ribonuclease H-like<br><b>Family:</b> Retroviral integrase, catalytic domain   |
| 20 | <a href="#">c3pvpA_</a> | <br>Alignment |  | 15.9 | 14 | <b>PDB header:</b> dna binding protein/dna<br><b>Chain:</b> A: <b>PDB Molecule:</b> chromosomal replication initiator protein dnaa;<br><b>PDBTitle:</b> structure of mycobacterium tuberculosis dnaa-dbd in complex with box22 dna   |
| 21 | <a href="#">c3f9kV_</a> | <br>Alignment | not modelled  | 15.1 | 14 | <b>PDB header:</b> viral protein, recombination<br><b>Chain:</b> V: <b>PDB Molecule:</b> integrase;<br><b>PDBTitle:</b> two domain fragment of hiv-2 integrase in complex with ledgf ibd   |
| 22 | <a href="#">d1su3a1</a> | <br>Alignment | not modelled  | 14.8 | 28 | <b>Fold:</b> PGBD-like<br><b>Superfamily:</b> PGBD-like<br><b>Family:</b> MMP N-terminal domain  |
| 23 | <a href="#">c2o8kA_</a> | <br>Alignment | not modelled  | 14.2 | 27 | <b>PDB header:</b> transcription/dna<br><b>Chain:</b> A: <b>PDB Molecule:</b> rna polymerase sigma factor rpon;<br><b>PDBTitle:</b> nmr structure of the sigma-54 rpon domain bound to the-242 promoter element  |
| 24 | <a href="#">c3u1nC_</a> | <br>Alignment | not modelled  | 14.2 | 12 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> C: <b>PDB Molecule:</b> sam domain and hd domain-containing protein 1;<br><b>PDBTitle:</b> structure of the catalytic core of human samhd1   |
| 25 | <a href="#">c1k6yB_</a> | <br>Alignment | not modelled  | 12.7 | 19 | <b>PDB header:</b> transferase<br><b>Chain:</b> B: <b>PDB Molecule:</b> integrase;<br><b>PDBTitle:</b> crystal structure of a two-domain fragment of hiv-1 integrase   |
| 26 | <a href="#">c1x6iB_</a> | <br>Alignment | not modelled  | 12.2 | 13 | <b>PDB header:</b> structural genomics, unknown function<br><b>Chain:</b> B: <b>PDB Molecule:</b> hypothetical protein ygfy;<br><b>PDBTitle:</b> crystal structure of ygfy from escherichia coli   |
| 27 | <a href="#">c1bg1A_</a> | <br>Alignment | not modelled  | 10.9 | 11 | <b>PDB header:</b> transcription/dna<br><b>Chain:</b> A: <b>PDB Molecule:</b> protein (transcription factor stat3b);<br><b>PDBTitle:</b> transcription factor stat3b/dna complex   |
| 28 | <a href="#">d2fug11</a> | <br>Alignment | not modelled  | 9.9  | 19 | <b>Fold:</b> Bromodomain-like<br><b>Superfamily:</b> Nqo1C-terminal domain-like<br><b>Family:</b> Nqo1C-terminal domain-like   |
| 29 | <a href="#">d1nkua_</a> | <br>Alignment | not modelled  | 9.1  | 13 | <b>Fold:</b> DNA-glycosylase<br><b>Superfamily:</b> DNA-glycosylase<br><b>Family:</b> 3-Methyladenine DNA glycosylase I (Tag)  |

|    |                         |           |              |     |    |   |
|----|-------------------------|-----------|--------------|-----|----|---|
| 30 | <a href="#">d2d1ha1</a> | Alignment | not modelled | 8.3 | 17 | <b>Fold:</b> DNA/RNA-binding 3-helical bundle<br><b>Superfamily:</b> "Winged helix" DNA-binding domain<br><b>Family:</b> TrmB-like  |
| 31 | <a href="#">c3iwfa_</a> | Alignment | not modelled | 8.3 | 4  | <b>PDB header:</b> transcription regulator<br><b>Chain:</b> A: <b>PDB Molecule:</b> transcription regulator rpir family;<br><b>PDBTitle:</b> the crystal structure of the n-terminal domain of a rpir2 transcriptional regulator from staphylococcus epidermidis to 1.4a  |
| 32 | <a href="#">c2kvcA_</a> | Alignment | not modelled | 8.2 | 20 | <b>PDB header:</b> unknown function<br><b>Chain:</b> A: <b>PDB Molecule:</b> putative uncharacterized protein;<br><b>PDBTitle:</b> solution structure of the mycobacterium tuberculosis protein rv0543c,2 a member of the duf3349 superfamily. seattle structural genomics3 center for infectious disease target mytud.17112.a                  |
| 33 | <a href="#">d1sfka_</a> | Alignment | not modelled | 7.6 | 19 | <b>Fold:</b> Flavivirus capsid protein C<br><b>Superfamily:</b> Flavivirus capsid protein C<br><b>Family:</b> Flavivirus capsid protein C   |
| 34 | <a href="#">d1s1ma2</a> | Alignment | not modelled | 7.4 | 24 | <b>Fold:</b> P-loop containing nucleoside triphosphate hydrolases<br><b>Superfamily:</b> P-loop containing nucleoside triphosphate hydrolases<br><b>Family:</b> Nitrogenase iron protein-like   |
| 35 | <a href="#">d1c6va_</a> | Alignment | not modelled | 7.3 | 14 | <b>Fold:</b> Ribonuclease H-like motif<br><b>Superfamily:</b> Ribonuclease H-like<br><b>Family:</b> Retroviral integrase, catalytic domain  |
| 36 | <a href="#">d1vcoa2</a> | Alignment | not modelled | 6.8 | 18 | <b>Fold:</b> P-loop containing nucleoside triphosphate hydrolases<br><b>Superfamily:</b> P-loop containing nucleoside triphosphate hydrolases<br><b>Family:</b> Nitrogenase iron protein-like   |
| 37 | <a href="#">c1r6rA_</a> | Alignment | not modelled | 5.9 | 10 | <b>PDB header:</b> viral protein<br><b>Chain:</b> A: <b>PDB Molecule:</b> genome polyprotein;<br><b>PDBTitle:</b> solution structure of dengue virus capsid protein reveals a2 new fold   |
| 38 | <a href="#">d1r6ra_</a> | Alignment | not modelled | 5.9 | 10 | <b>Fold:</b> Flavivirus capsid protein C<br><b>Superfamily:</b> Flavivirus capsid protein C<br><b>Family:</b> Flavivirus capsid protein C   |
| 39 | <a href="#">c1yvlB_</a> | Alignment | not modelled | 5.7 | 9  | <b>PDB header:</b> signaling protein<br><b>Chain:</b> B: <b>PDB Molecule:</b> signal transducer and activator of transcription<br><b>PDBTitle:</b> structure of unphosphorylated stat1  |
| 40 | <a href="#">c1ud0B_</a> | Alignment | not modelled | 5.6 | 20 | <b>PDB header:</b> chaperone<br><b>Chain:</b> B: <b>PDB Molecule:</b> 70 kda heat-shock-like protein;<br><b>PDBTitle:</b> crystal structure of the c-terminal 10-kda subdomain of hsc70   |
| 41 | <a href="#">d1h3fa1</a> | Alignment | not modelled | 5.6 | 9  | <b>Fold:</b> Adenine nucleotide alpha hydrolase-like<br><b>Superfamily:</b> Nucleotidyl transferase<br><b>Family:</b> Class I aminoacyl-tRNA synthetases (RS), catalytic domain   |
| 42 | <a href="#">c2vkpA_</a> | Alignment | not modelled | 5.6 | 12 | <b>PDB header:</b> protein-binding<br><b>Chain:</b> A: <b>PDB Molecule:</b> btb/poz domain-containing protein 6;<br><b>PDBTitle:</b> crystal structure of btb domain from btbdb6  |
| 43 | <a href="#">c3d3kD_</a> | Alignment | not modelled | 5.4 | 12 | <b>PDB header:</b> protein binding<br><b>Chain:</b> D: <b>PDB Molecule:</b> enhancer of mrna-decapping protein 3;<br><b>PDBTitle:</b> crystal structure of human edc3p  |
| 44 | <a href="#">c1m6vE_</a> | Alignment | not modelled | 5.4 | 16 | <b>PDB header:</b> ligase<br><b>Chain:</b> E: <b>PDB Molecule:</b> carbamoyl phosphate synthetase large chain;<br><b>PDBTitle:</b> crystal structure of the g359f (small subunit) point mutant of2 carbamoyl phosphate synthetase   |
| 45 | <a href="#">d1j1va_</a> | Alignment | not modelled | 5.3 | 19 | <b>Fold:</b> DNA/RNA-binding 3-helical bundle<br><b>Superfamily:</b> TrpR-like<br><b>Family:</b> Chromosomal replication initiation factor DnaA C-terminal domain IV  |
| 46 | <a href="#">c2lkyA_</a> | Alignment | not modelled | 5.2 | 15 | <b>PDB header:</b> structural genomics, unknown function<br><b>Chain:</b> A: <b>PDB Molecule:</b> uncharacterized protein;<br><b>PDBTitle:</b> solution structure of msme_1053, the second duf3349 annotated protein2 in the genome of mycobacterium smegmatis, seattle structural genomics3 center for infectious disease target mysma.17112.b |