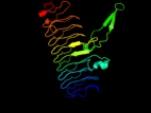
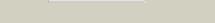
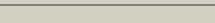
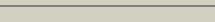
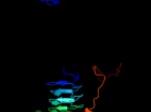
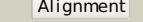
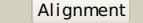
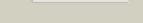
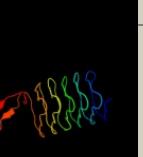
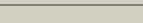
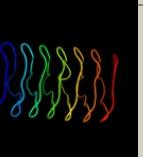
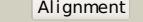
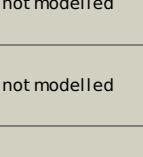
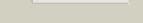
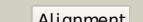
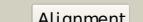
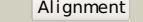


Phyre²

Email	i.a.kelley@imperial.ac.uk
Description	P76100
Date	Thu Jan 5 12:18:53 GMT 2012
Unique Job ID	b645c2ff8ed349f5

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	d2f9ca1	 Alignment		100.0	65	Fold: Single-stranded left-handed beta-helix Superfamily: Trimeric LpxA-like enzymes Family: YdcK-like
2	c3pmoA	 Alignment		100.0	13	PDB header: transferase Chain: A: PDB Molecule: udp-3-o-[3-hydroxymyristoyl] glucosamine n-acyltransferase; PDBTitle: the structure of lpxd from pseudomonas aeruginosa at 1.3 a resolution
3	c2iu9C	 Alignment		100.0	19	PDB header: transferase Chain: C: PDB Molecule: udp-3-o-[3-hydroxymyristoyl] glucosamine PDBTitle: chlamydia trachomatis lpxd with 100mm udpglcnac (complex ii)
4	c3eh0C	 Alignment		100.0	13	PDB header: transferase Chain: C: PDB Molecule: udp-3-o-[3-hydroxymyristoyl] glucosamine n- PDBTitle: crystal structure of lpxd from escherichia coli
5	c3i3aC	 Alignment		99.9	15	PDB header: transferase Chain: C: PDB Molecule: acyl-[acyl-carrier-protein]-udp-n- PDBTitle: structural basis for the sugar nucleotide and acyl chain2 selectivity of leptospira interrogans ipxa
6	d2jf2a1	 Alignment		99.9	16	Fold: Single-stranded left-handed beta-helix Superfamily: Trimeric LpxA-like enzymes Family: UDP N-acetylglucosamine acyltransferase
7	d1j2za	 Alignment		99.9	14	Fold: Single-stranded left-handed beta-helix Superfamily: Trimeric LpxA-like enzymes Family: UDP N-acetylglucosamine acyltransferase
8	c3r0sA	 Alignment		99.8	18	PDB header: transferase Chain: A: PDB Molecule: acyl-[acyl-carrier-protein]-udp-n-acetylglucosamine o- PDBTitle: udp-n-acetylglucosamine acyltransferase from campylobacter jejuni
9	c3fsbB	 Alignment		99.8	13	PDB header: transferase Chain: B: PDB Molecule: qdtc; PDBTitle: crystal structure of qdtc, the dtdp-3-amino-3,6-dideoxy-d-2 glucose n-acetyl transferase from thermoanaerobacterium3 thermosaccharolyticum in complex with coa and dtdp-3-amino-4 quinovose
10	c3c8vA	 Alignment		99.8	12	PDB header: transferase Chain: A: PDB Molecule: putative acetyltransferase; PDBTitle: crystal structure of putative acetyltransferase (yp_390128.1) from2 desulfovibrio desulfuricans g20 at 2.28 a resolution
11	c2oi6A	 Alignment		99.6	13	PDB header: transferase Chain: A: PDB Molecule: bifunctional protein glmu; PDBTitle: e. coli glmu- complex with udp-glcnac, coa and glcn-1-po4

12	c1hm8A		Alignment		99.6	17	PDB header: transferase Chain: A: PDB Molecule: udp-n-acetylglucosamine-1-phosphate uridylyltransferase; PDBTitle: crystal structure of s.pneumoniae n-acetylglucosamine-1-phosphate2 uridylyltransferase, glmu, bound to acetyl coenzyme a
13	c2v0hA		Alignment		99.6	14	PDB header: transferase Chain: A: PDB Molecule: bifunctional protein glmu; PDBTitle: characterization of substrate binding and catalysis of the2 potential antibacterial target n-acetylglucosamine-1-3 phosphate uridylyltransferase (glmu)
14	d2oi6a1		Alignment		99.6	15	Fold: Single-stranded left-handed beta-helix Superfamily: Trimeric LpxA-like enzymes Family: GlmU C-terminal domain-like
15	d3bswa1		Alignment		99.6	16	Fold: Single-stranded left-handed beta-helix Superfamily: Trimeric LpxA-like enzymes Family: PglD-like
16	d1g97a1		Alignment		99.6	17	Fold: Single-stranded left-handed beta-helix Superfamily: Trimeric LpxA-like enzymes Family: GlmU C-terminal domain-like
17	c3srtB		Alignment		99.5	16	PDB header: transferase Chain: B: PDB Molecule: maltose o-acetyltransferase; PDBTitle: the crystal structure of a maltose o-acetyltransferase from2 clostridium difficile 630
18	c3eg4A		Alignment		99.5	13	PDB header: transferase Chain: A: PDB Molecule: 2,3,4,5-tetrahydropyridine-2,6-dicarboxylate n- PDBTitle: crystal structure of 2,3,4,5-tetrahydropyridine-2-2 carboxylate n-succinyltransferase from brucella melitensis3 biovar abortus 2308
19	c3cj8B		Alignment		99.5	19	PDB header: transferase Chain: B: PDB Molecule: 2,3,4,5-tetrahydropyridine-2-carboxylate n- PDBTitle: crystal structure of 2,3,4,5-tetrahydropyridine-2-2 carboxylate n-2 succinyltransferase from enterococcus faecalis v583
20	c3mghD		Alignment		99.5	14	PDB header: transferase Chain: D: PDB Molecule: lipopolysaccharides biosynthesis acetyltransferase; PDBTitle: crystal structure of the 3-n-acetyl transferase wlbb from bordetella2 petrii in complex with coa and udp-3-amino-2-acetamido-2,3-dideoxy3 glucuronic acid
21	c3iqyB		Alignment	not modelled	99.5	11	PDB header: transferase Chain: B: PDB Molecule: polysialic acid o-acetyltransferase; PDBTitle: crystal strucuture of the polysia specific acetyltransferase neuo
22	c3fttA		Alignment	not modelled	99.5	12	PDB header: transferase Chain: A: PDB Molecule: putative acetyltransferase sacol2570; PDBTitle: crystal structure of the galactoside o-acetyltransferase2 from staphylococcus aureus
23	c2jc7A		Alignment	not modelled	99.5	16	PDB header: transferase Chain: A: PDB Molecule: maltose transacetylase; PDBTitle: crystal structure of maltose transacetylase from2 geobacillus kaustophilus
24	d1ocxa		Alignment	not modelled	99.4	15	Fold: Single-stranded left-handed beta-helix Superfamily: Trimeric LpxA-like enzymes Family: Galactoside acetyltransferase-like
25	c3ectA		Alignment	not modelled	99.4	11	PDB header: transferase Chain: A: PDB Molecule: hexapeptide-repeat containing-acetyltransferase; PDBTitle: crystal structure of the hexapeptide-repeat containing-2 acetyltransferase vca0836 from vibrio cholerae
26	d1krra		Alignment	not modelled	99.4	17	Fold: Single-stranded left-handed beta-helix Superfamily: Trimeric LpxA-like enzymes Family: Galactoside acetyltransferase-like
27	c1t3dB		Alignment	not modelled	99.4	23	PDB header: transferase Chain: B: PDB Molecule: serine acetyltransferase; PDBTitle: crystal structure of serine acetyltransferase from e.coli at 2.2a
28	d1t3da		Alignment	not modelled	99.4	23	Fold: Single-stranded left-handed beta-helix Superfamily: Trimeric LpxA-like enzymes Family: Serine acetyltransferase
							Fold: Single-stranded left-handed beta-helix

29	d1ssqa	Alignment	not modelled	99.4	21	Superfamily: Trimeric LpxA-like enzymes Family: Serine acetyltransferase
30	d3tdta	Alignment	not modelled	99.3	11	Fold: Single-stranded left-handed beta-helix Superfamily: Trimeric LpxA-like enzymes Family: Tetrahydrodipicolinate-N-succinyltransferase, THDP-succinyltransferase, DapD PDB header: transferase Chain: A: PDB Molecule: polysialic acid o-acetyltransferase; PDBTitle: crystallographic analysis of the polysialic acid o-2 acetyltransferase oatwy
31	c2wlga	Alignment	not modelled	99.3	13	Fold: Single-stranded left-handed beta-helix Superfamily: Trimeric LpxA-like enzymes Family: gamma-carbonic anhydrase-like
32	d1qrea	Alignment	not modelled	99.3	11	PDB header: lyase Chain: A: PDB Molecule: carbonic anhydrase; PDBTitle: a closer look at the active site of gamma-carbonic anhydrases: high2 resolution crystallographic studies of the carbonic anhydrase from3 methanoscincina thermophila
33	c1qreA	Alignment	not modelled	99.3	11	Fold: Single-stranded left-handed beta-helix Superfamily: Trimeric LpxA-like enzymes Family: Galactoside acetyltransferase-like
34	d1mr7a	Alignment	not modelled	99.3	11	PDB header: transferase Chain: A: PDB Molecule: ww/rsp5/wwp domain:bacterial transferase PDBTitle: crystal structure of ww/rsp5/wwp domain: bacterial2 transferase hexapeptide repeat: serine o-acetyltransferase3 from brucella melitensis
35	c3mc4A	Alignment	not modelled	99.3	16	PDB header: transferase Chain: A: PDB Molecule: serine acetyltransferase; PDBTitle: crystal structure of entamoeba histolytica serine acetyltransferase 12 in complex with l-serine
36	c3q1xA	Alignment	not modelled	99.3	12	PDB header: transferase Chain: A: PDB Molecule: hexapeptide transferase family protein; PDBTitle: crystal structure of hexapeptide transferase family protein from2 anaplasma phagocytophylum
37	c3f1xA	Alignment	not modelled	99.2	18	PDB header: transferase Chain: A: PDB Molecule: serine acetyltransferase; PDBTitle: three dimensional structure of the serine acetyltransferase from2 bacteroides vulgatus, northeast structural genomics consortium target3 bvr62.
38	c3ixcA	Alignment	not modelled	99.2	11	PDB header: transferase Chain: A: PDB Molecule: ferripyochelin binding protein; PDBTitle: structure of the yrdA ferripyochelin binding protein from salmonella2 enterica
39	c3r3rA	Alignment	not modelled	99.1	13	Fold: Single-stranded left-handed beta-helix Superfamily: Trimeric LpxA-like enzymes Family: Galactoside acetyltransferase-like
40	d1xata	Alignment	not modelled	99.1	9	PDB header: transferase Chain: A: PDB Molecule: 401aa long hypothetical glucose-1-phosphate PDBTitle: complex of hypothetical glucose-1-phosphate thymidyltransferase from2 sulfolobus tokodaii
41	c2ggqA	Alignment	not modelled	99.1	10	PDB header: transferase Chain: C: PDB Molecule: chloramphenicol acetyltransferase; PDBTitle: crystal structure of chloramphenicol acetyltransferase vca0300 from2 vibrio cholerae o1 biovar eltor
42	c3eevC	Alignment	not modelled	99.1	8	Fold: Single-stranded left-handed beta-helix Superfamily: Trimeric LpxA-like enzymes Family: gamma-carbonic anhydrase-like
43	d1v3wa	Alignment	not modelled	99.1	12	Fold: Single-stranded left-handed beta-helix Superfamily: Trimeric LpxA-like enzymes Family: gamma-carbonic anhydrase-like
44	d1xhda	Alignment	not modelled	99.0	17	PDB header: lyase, protein binding, photosynthesis Chain: A: PDB Molecule: carbon dioxide concentrating mechanism protein; PDBTitle: inactive truncation of the beta-carboxysomal gamma-carbonic anhydrase,2 cccm, form 1
45	c3kwda	Alignment	not modelled	99.0	13	PDB header: transferase Chain: C: PDB Molecule: tetrahydrodipicolinate n-succinyltransferase; PDBTitle: structure of tetrahydrodipicolinate n-succinyltransferase2 (rv1201c;dapd) in complex with succinyl-coa from mycobacterium3 tuberculosis
46	c3fsyC	Alignment	not modelled	98.9	22	PDB header: lyase Chain: A: PDB Molecule: carbonic anhydrase; PDBTitle: crystal structure of a carbonic anhydrase from a crude oil degrading2 psychrophilic library
47	c3r1wA	Alignment	not modelled	98.9	14	PDB header: transferase Chain: A: PDB Molecule: bifunctional protein glmU; PDBTitle: crystal structure of glmU from mycobacterium tuberculosis, ligand-free2 form
48	c3d98A	Alignment	not modelled	98.8	15	PDB header: transferase Chain: A: PDB Molecule: bifunctional protein glmU; PDBTitle: crystal structure of glmU from mycobacterium tuberculosis, ligand-free2 form
49	c2qkxA	Alignment	not modelled	98.8	14	PDB header: transferase Chain: A: PDB Molecule: bifunctional protein glmU; PDBTitle: n-acetyl glucosamine 1-phosphate uridyltransferase from mycobacterium2 tuberculosis complex with n-acetyl glucosamine 1-phosphate
50	c1yp3C	Alignment	not modelled	98.6	10	PDB header: transferase Chain: C: PDB Molecule: glucose-1-phosphate adenylyltransferase small PDBTitle: crystal structure of potato tuber adp-glucose2 pyrophosphorylase in complex with atp
51	d1yp2a1	Alignment	not modelled	98.5	11	Fold: Single-stranded left-handed beta-helix Superfamily: Trimeric LpxA-like enzymes Family: GlmU C-terminal domain-like
52	c2rijA	Alignment	not modelled	98.4	16	PDB header: transferase Chain: A: PDB Molecule: putative 2,3,4,5-tetrahydropyridine-2-carboxylate n- PDBTitle: crystal structure of a putative 2,3,4,5-tetrahydropyridine-

						2-2 carboxylate n-succinyltransferase (cj1605c, dapd) from campylobacter3 jejuni at 1.90 a resolution
53	d1fxja1	Alignment	not modelled	98.3	14	Fold: Single-stranded left-handed beta-helix Superfamily: Trimeric LpxA-like enzymes Family: GlmU C-terminal domain-like
54	c1fwyA_	Alignment	not modelled	98.1	16	PDB header: transferase Chain: A: PDB Molecule: udp-n-acetylglucosamine pyrophosphorylase; PDBTitle: crystal structure of n-acetylglucosamine 1-phosphate2 uridyltransferase bound to udp-glcnac
55	c3brkX_	Alignment	not modelled	98.0	19	PDB header: transferase Chain: X: PDB Molecule: glucose-1-phosphate adenyltransferase; PDBTitle: crystal structure of adp-glucose pyrophosphorylase from2 agrobacterium tumefaciens
56	d2jnga1	Alignment	not modelled	94.5	15	Fold: SH3-like barrel Superfamily: Tudor/PWWP/MBT Family: CPH domain
57	c2jufA_	Alignment	not modelled	94.4	15	PDB header: gene regulation Chain: A: PDB Molecule: p53-associated parkin-like cytoplasmic protein; PDBTitle: nmr solution structure of parc cph domain. nesg target2 hr3443b/sgc-toronto
58	c2zv4O_	Alignment	not modelled	42.8	21	PDB header: structural protein Chain: O: PDB Molecule: major vault protein; PDBTitle: the structure of rat liver vault at 3.5 angstrom resolution
59	c3anwB_	Alignment	not modelled	41.3	19	PDB header: replication Chain: B: PDB Molecule: putative uncharacterized protein; PDBTitle: a protein complex essential initiation of dna replication
60	c3gf5A_	Alignment	not modelled	41.0	21	PDB header: structural protein Chain: A: PDB Molecule: major vault protein; PDBTitle: crystal structure of the p21 r1-r7 n-terminal domain of murine mvp
61	c1y7xA_	Alignment	not modelled	40.8	29	PDB header: structural protein, protein binding Chain: A: PDB Molecule: major vault protein; PDBTitle: solution structure of a two-repeat fragment of major vault2 protein
62	c2i5kB_	Alignment	not modelled	23.3	15	PDB header: transferase Chain: B: PDB Molecule: utp--glucose-1-phosphate uridylyltransferase; PDBTitle: crystal structure of upg1p
63	c1vi7A_	Alignment	not modelled	21.7	13	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: hypothetical protein yigz; PDBTitle: crystal structure of an hypothetical protein
64	d2icya1	Alignment	not modelled	15.0	17	Fold: Single-stranded left-handed beta-helix Superfamily: Trimeric LpxA-like enzymes Family: GlmU C-terminal domain-like
65	c1whsB_	Alignment	not modelled	14.7	27	PDB header: serine carboxypeptidase Chain: B: PDB Molecule: serine carboxypeptidase ii; PDBTitle: structure of the complex of l-benzylsuccinate with wheat serine2 carboxypeptidase ii at 2.0 angstroms resolution
66	c2k6lA_	Alignment	not modelled	13.4	17	PDB header: unknown function Chain: A: PDB Molecule: putative uncharacterized protein; PDBTitle: the solution structure of xacb0070 from xanthomonas2 axonopodis pv citri reveals this new protein is a member of3 the rh family of transcriptional repressors
67	d1i1ja_	Alignment	not modelled	10.8	13	Fold: SH3-like barrel Superfamily: SH3-domain Family: SH3-domain
68	d1yw6a1	Alignment	not modelled	10.8	13	Fold: Phosphorylase/hydrolase-like Superfamily: Zn-dependent exopeptidases Family: AsteE/AspA-like
69	d1bb9a_	Alignment	not modelled	10.8	17	Fold: SH3-like barrel Superfamily: SH3-domain Family: SH3-domain
70	c1bb9A_	Alignment	not modelled	10.8	17	PDB header: transferase Chain: A: PDB Molecule: amphiphysin 2; PDBTitle: crystal structure of the sh3 domain from rat amphiphysin 2
71	d1loua_	Alignment	not modelled	10.7	43	Fold: Ferredoxin-like Superfamily: Ribosomal protein S6 Family: Ribosomal protein S6
72	d2qalf1	Alignment	not modelled	10.3	43	Fold: Ferredoxin-like Superfamily: Ribosomal protein S6 Family: Ribosomal protein S6
73	d1qjha_	Alignment	not modelled	10.1	43	Fold: Ferredoxin-like Superfamily: Ribosomal protein S6 Family: Ribosomal protein S6
74	d2g9da1	Alignment	not modelled	9.9	16	Fold: Phosphorylase/hydrolase-like Superfamily: Zn-dependent exopeptidases Family: AsteE/AspA-like
75	c2jkuA_	Alignment	not modelled	9.8	38	PDB header: ligase Chain: A: PDB Molecule: propionyl-coa carboxylase alpha chain, PDBTitle: crystal structure of the n-terminal region of the biotin2 acceptor domain of human propionyl-coa carboxylase
76	d1jw3a_	Alignment	not modelled	9.8	10	Fold: MTH1598-like Superfamily: MTH1598-like Family: MTH1598-like
77	d1qlya_	Alignment	not modelled	9.6	22	Fold: SH3-like barrel Superfamily: SH3-domain Family: SH3-domain
						PDB header: hydrolase

78	c2ow7A	Alignment	not modelled	9.2	28	Chain: A: PDB Molecule: alpha-mannosidase 2; PDBTitle: golgi alpha-mannosidase ii complex with (1r,6s,7r,8s)-1-2 thioniabicyclo[4.3.0]nonan-7,8-diol chloride
79	c1scfA	Alignment	not modelled	8.9	33	PDB header: hormone/growth factor Chain: A: PDB Molecule: stem cell factor; PDBTitle: human recombinant stem cell factor
80	d1scfa	Alignment	not modelled	8.9	33	Fold: 4-helical cytokines Superfamily: 4-helical cytokines Family: Short-chain cytokines
81	d1wb8a1	Alignment	not modelled	8.8	38	Fold: Long alpha-hairpin Superfamily: Fe,Mn superoxide dismutase (SOD), N-terminal domain Family: Fe,Mn superoxide dismutase (SOD), N-terminal domain
82	c2qbbF	Alignment	not modelled	8.8	43	PDB header: ribosome Chain: F: PDB Molecule: 30s ribosomal protein s6; PDBTitle: crystal structure of the bacterial ribosome from2 escherichia coli in complex with gentamicin. this file3 contains the 30s subunit of the second 70s ribosome, with4 gentamicin bound. the entire crystal structure contains5 two 70s ribosomes and is described in remark 400. Fold: Long alpha-hairpin Superfamily: Fe,Mn superoxide dismutase (SOD), N-terminal domain Family: Fe,Mn superoxide dismutase (SOD), N-terminal domain
83	d1b06a1	Alignment	not modelled	8.8	13	PDB header: hydrolase Chain: A: PDB Molecule: lysosomal alpha-mannosidase; PDBTitle: the structure of the bovine lysosomal a-mannosidase2 suggests a novel mechanism for low ph activation
84	c1o7dA	Alignment	not modelled	8.4	33	Fold: Common fold of diphtheria toxin/transcription factors/cytochrome f Superfamily: Alpha-macroglobulin receptor domain Family: Alpha-macroglobulin receptor domain
85	d1edya	Alignment	not modelled	8.4	3	PDB header: oxidoreductase activator Chain: A: PDB Molecule: neutrophil cytosol factor 1; PDBTitle: structure of the p22phox-p47phox complex
86	c1ov3A	Alignment	not modelled	8.0	20	PDB header: ribosome Chain: F: PDB Molecule: ribosomal protein s6; PDBTitle: homology model for the spinach chloroplast 30s subunit2 fitted to 9.4a cryo-em map of the 70s chlororibosome.
87	c3bbnF	Alignment	not modelled	7.5	29	Fold: Ferrodoxin-like Superfamily: Ribosomal protein S6 Family: Ribosomal protein S6
88	d2j5aa1	Alignment	not modelled	7.4	29	Fold: SH3-like barrel Superfamily: SH3-domain Family: SH3-domain
89	d1ov3a1	Alignment	not modelled	7.3	19	PDB header: lyase Chain: B: PDB Molecule: p-(s)-hydroxymandelonitrile lyase chain b; PDBTitle: crystal structure of hydroxynitrile lyase from sorghum2 bicolor in complex with inhibitor benzoic acid: a novel3 cyanogenic enzyme
90	c1gxsB	Alignment	not modelled	7.3	24	Fold: SH3-like barrel Superfamily: Myosin S1 fragment, N-terminal domain Family: Myosin S1 fragment, N-terminal domain
91	d1kk8a1	Alignment	not modelled	7.1	50	Fold: Double-stranded beta-helix Superfamily: Clavaminate synthase-like Family: PhyH-like
92	d2fcfa1	Alignment	not modelled	6.9	32	PDB header: rna binding protein Chain: A: PDB Molecule: activating signal cointegrator; PDBTitle: crystal structure of activating signal cointegrator (np_814290.1) from2 enterococcus faecalis v583 at 1.58 a resolution
93	c3iuwA	Alignment	not modelled	6.8	10	Fold: 4-helical cytokines Superfamily: 4-helical cytokines Family: Short-chain cytokines
94	d1scfc	Alignment	not modelled	6.7	33	PDB header: hydrolase Chain: A: PDB Molecule: non-structural protein 3; PDBTitle: crystal structure of transmissible gastroenteritis virus papain-like2 protease 1
95	c3mp2A	Alignment	not modelled	6.6	67	PDB header: hydrolase Chain: B: PDB Molecule: replicase polyprotein 1ab; PDBTitle: sars coronavirus papain-like protease: structure of a viral2 deubiquitinating enzyme
96	c2fe8B	Alignment	not modelled	6.5	29	PDB header: endocytosis/exocytosis Chain: A: PDB Molecule: rim binding protein 2; PDBTitle: solution structure of the third sh3 domain of human rim-2 binding protein 2
97	c2csia	Alignment	not modelled	6.4	24	PDB header: signaling protein Chain: A: PDB Molecule: voltage-gated calcium channel subunit beta2a; PDBTitle: crystal structure of a complex between voltage-gated calcium channel2 beta2a subunit and a peptide of the alphalc subunit
98	c1t0ja	Alignment	not modelled	6.4	9	Fold: Common fold of diphtheria toxin/transcription factors/cytochrome f Superfamily: Alpha-macroglobulin receptor domain Family: Alpha-macroglobulin receptor domain
99	d1bv8a	Alignment	not modelled	6.4	9	