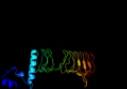
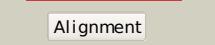
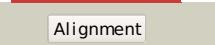
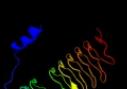
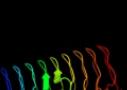
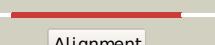
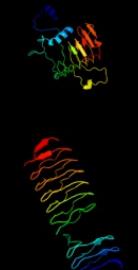
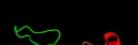
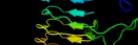


# Phyre<sup>2</sup>

Email	i.a.kelley@imperial.ac.uk
Description	P75697
Date	Thu Jan 5 12:13:16 GMT 2012
Unique Job ID	337f6db310112e43

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	<a href="#">c1hm8A_</a>			100.0	17	<b>PDB header:</b> transferase <b>Chain:</b> A: <b>PDB Molecule:</b> udp-n-acetylglucosamine-1-phosphate uridyltransferase; <b>PDBTitle:</b> crystal structure of s.pneumoniae n-acetylglucosamine-1-phosphate2 uridyltransferase, glmu, bound to acetyl coenzyme a
2	<a href="#">c3i3aC_</a>			100.0	12	<b>PDB header:</b> transferase <b>Chain:</b> C: <b>PDB Molecule:</b> acyl-[acyl-carrier-protein]-udp-n- <b>PDBTitle:</b> structural basis for the sugar nucleotide and acyl chain2 selectivity of leptospira interrogans lpxa
3	<a href="#">c2iu9C_</a>			100.0	19	<b>PDB header:</b> transferase <b>Chain:</b> C: <b>PDB Molecule:</b> udp-3-o-[3-hydroxymyristoyl] glucosamine <b>PDBTitle:</b> chlamydia trachomatis lpxd with 100mm udpglcnac (complex ii)
4	<a href="#">c2v0hA_</a>			100.0	18	<b>PDB header:</b> transferase <b>Chain:</b> A: <b>PDB Molecule:</b> bifunctional protein glmu; <b>PDBTitle:</b> characterization of substrate binding and catalysis of the2 potential antibacterial target n-acetylglucosamine-1-3 phosphate uridyltransferase (glmu)
5	<a href="#">d1j2za_</a>			100.0	14	<b>Fold:</b> Single-stranded left-handed beta-helix <b>Superfamily:</b> Trimeric LpxA-like enzymes <b>Family:</b> UDP N-acetylglucosamine acyltransferase
6	<a href="#">c3pmoA_</a>			100.0	20	<b>PDB header:</b> transferase <b>Chain:</b> A: <b>PDB Molecule:</b> udp-3-o-[3-hydroxymyristoyl] glucosamine n-acyltransferase; <b>PDBTitle:</b> the structure of lpxd from pseudomonas aeruginosa at 1.3 a resolution
7	<a href="#">c3eh0C_</a>			100.0	21	<b>PDB header:</b> transferase <b>Chain:</b> C: <b>PDB Molecule:</b> udp-3-o-[3-hydroxymyristoyl] glucosamine n- <b>PDBTitle:</b> crystal structure of lpxd from escherichia coli
8	<a href="#">d2jf2a1</a>			100.0	16	<b>Fold:</b> Single-stranded left-handed beta-helix <b>Superfamily:</b> Trimeric LpxA-like enzymes <b>Family:</b> UDP N-acetylglucosamine acyltransferase
9	<a href="#">c3r0sA_</a>			100.0	15	<b>PDB header:</b> transferase <b>Chain:</b> A: <b>PDB Molecule:</b> acyl-[acyl-carrier-protein]-udp-n-acetylglucosamine o- <b>PDBTitle:</b> udp-n-acetylglucosamine acyltransferase from campylobacter jejuni
10	<a href="#">c2oi6A_</a>			100.0	15	<b>PDB header:</b> transferase <b>Chain:</b> A: <b>PDB Molecule:</b> bifunctional protein glmu; <b>PDBTitle:</b> e. coli glmu- complex with udp-glcnac, coa and glcn-1-po4
11	<a href="#">c2ggqA_</a>			100.0	28	<b>PDB header:</b> transferase <b>Chain:</b> A: <b>PDB Molecule:</b> 401aa long hypothetical glucose-1-phosphate <b>PDBTitle:</b> complex of hypothetical glucose-1-phosphate thymidyltransferase from sulfolobus tokodaii

12	<a href="#">c1yp3C_</a>	Alignment		99.9	14	<b>PDB header:</b> transferase <b>Chain:</b> C: <b>PDB Molecule:</b> glucose-1-phosphate adenylyltransferase small <b>PDBTitle:</b> crystal structure of potato tuber adp-glucose2 pyrophosphorylase in complex with atp
13	<a href="#">c3fsbB_</a>	Alignment		99.9	19	<b>PDB header:</b> transferase <b>Chain:</b> B: <b>PDB Molecule:</b> qdtc; <b>PDBTitle:</b> crystal structure of qdtc, the dtdp-3-amino-3,6-dideoxy-d-2 glucose n-acetyl transferase from thermoanaerobacterium thermosaccharolyticum in complex with coa and dtdp-3-amino-4 quinovose
14	<a href="#">d1grea_</a>	Alignment		99.9	15	<b>Fold:</b> Single-stranded left-handed beta-helix <b>Superfamily:</b> Trimeric LpxA-like enzymes <b>Family:</b> gamma-carboxylic anhydride-like
15	<a href="#">c1qreA_</a>	Alignment		99.9	15	<b>PDB header:</b> lyase <b>Chain:</b> A: <b>PDB Molecule:</b> carbonic anhydrase; <b>PDBTitle:</b> a closer look at the active site of gamma-carboxylic anhydrides: high2 resolution crystallographic studies of the carbonic anhydrase from3 methanoscincus thermophilus
16	<a href="#">d2oi6a1</a>	Alignment		99.9	16	<b>Fold:</b> Single-stranded left-handed beta-helix <b>Superfamily:</b> Trimeric LpxA-like enzymes <b>Family:</b> GlmU C-terminal domain-like
17	<a href="#">c3mqhD_</a>	Alignment		99.9	18	<b>PDB header:</b> transferase <b>Chain:</b> D: <b>PDB Molecule:</b> lipopolysaccharides biosynthesis acetyltransferase; <b>PDBTitle:</b> crystal structure of the 3-n-acetyl transferase w1bb from bordetella2 petrii in complex with coa and udp-3-amino-2-acetamido-2,3-dideoxy3 glucuronic acid
18	<a href="#">c3d98A_</a>	Alignment		99.9	16	<b>PDB header:</b> transferase <b>Chain:</b> A: <b>PDB Molecule:</b> bifunctional protein glmu; <b>PDBTitle:</b> crystal structure of glmu from mycobacterium tuberculosis, ligand-free2 form
19	<a href="#">d1g97a1</a>	Alignment		99.9	17	<b>Fold:</b> Single-stranded left-handed beta-helix <b>Superfamily:</b> Trimeric LpxA-like enzymes <b>Family:</b> GlmU C-terminal domain-like
20	<a href="#">c2qkxA_</a>	Alignment		99.9	16	<b>PDB header:</b> transferase <b>Chain:</b> A: <b>PDB Molecule:</b> bifunctional protein glmu; <b>PDBTitle:</b> n-acetyl glucosamine 1-phosphate uridyltransferase from mycobacterium2 tuberculosis complex with n-acetyl glucosamine 1-phosphate
21	<a href="#">c3cj8B_</a>	Alignment	not modelled	99.8	22	<b>PDB header:</b> transferase <b>Chain:</b> B: <b>PDB Molecule:</b> 2,3,4,5-tetrahydropyridine-2-carboxylate n- <b>PDBTitle:</b> crystal structure of 2,3,4,5-tetrahydropyridine-2-carboxylate n-2 succinyltransferase from enterococcus faecalis v583
22	<a href="#">c3ectA_</a>	Alignment	not modelled	99.8	17	<b>PDB header:</b> transferase <b>Chain:</b> A: <b>PDB Molecule:</b> hexapeptide-repeat containing-acetyltransferase; <b>PDBTitle:</b> crystal structure of the hexapeptide-repeat containing-2 acetyltransferase vca0836 from vibrio cholerae
23	<a href="#">c3eg4A_</a>	Alignment	not modelled	99.8	17	<b>PDB header:</b> transferase <b>Chain:</b> A: <b>PDB Molecule:</b> 2,3,4,5-tetrahydropyridine-2,6-dicarboxylate n- <b>PDBTitle:</b> crystal structure of 2,3,4,5-tetrahydropyridine-2-2 carboxylate n-succinyltransferase from brucella melitensis3 biovar abortus 2308
24	<a href="#">d1mr7a_</a>	Alignment	not modelled	99.8	12	<b>Fold:</b> Single-stranded left-handed beta-helix <b>Superfamily:</b> Trimeric LpxA-like enzymes <b>Family:</b> Galactoside acetyltransferase-like
25	<a href="#">c3c8vA_</a>	Alignment	not modelled	99.8	11	<b>PDB header:</b> transferase <b>Chain:</b> A: <b>PDB Molecule:</b> putative acetyltransferase; <b>PDBTitle:</b> crystal structure of putative acetyltransferase (yp_390128.1) from2 desulfovibrio desulfuricans g20 at 2.28 a resolution
26	<a href="#">c2ic7A_</a>	Alignment	not modelled	99.8	18	<b>PDB header:</b> transferase <b>Chain:</b> A: <b>PDB Molecule:</b> maltose transacetylase; <b>PDBTitle:</b> crystal structure of maltose transacetylase from2 geobacillus kaustophilus
27	<a href="#">c3jgyB_</a>	Alignment	not modelled	99.8	16	<b>PDB header:</b> transferase <b>Chain:</b> B: <b>PDB Molecule:</b> polysialic acid o-acetyltransferase; <b>PDBTitle:</b> crystal strucure of the polysia specific acetyltransferase neuo

28	<a href="#">c3fttA_</a>	Alignment	not modelled	99.8	20	<b>PDB header:</b> transferase <b>Chain:</b> A: <b>PDB Molecule:</b> putative acetyltransferase sacl2570; <b>PDBTitle:</b> crystal structure of the galactoside o-acetyltransferase2 from staphylococcus aureus
29	<a href="#">d1krra_</a>	Alignment	not modelled	99.8	20	<b>Fold:</b> Single-stranded left-handed beta-helix <b>Superfamily:</b> Trimeric LpxA-like enzymes <b>Family:</b> Galactoside acetyltransferase-like
30	<a href="#">c3srtB_</a>	Alignment	not modelled	99.8	22	<b>PDB header:</b> transferase <b>Chain:</b> B: <b>PDB Molecule:</b> maltose o-acetyltransferase; <b>PDBTitle:</b> the crystal structure of a maltose o-acetyltransferase from2 clostridium difficile 630
31	<a href="#">c2wlgA_</a>	Alignment	not modelled	99.8	16	<b>PDB header:</b> transferase <b>Chain:</b> A: <b>PDB Molecule:</b> polysialic acid o-acetyltransferase; <b>PDBTitle:</b> crystallographic analysis of the polysialic acid o-2 acetyltransferase oatwy
32	<a href="#">d3tdta_</a>	Alignment	not modelled	99.8	15	<b>Fold:</b> Single-stranded left-handed beta-helix <b>Superfamily:</b> Trimeric LpxA-like enzymes <b>Family:</b> Tetrahydriodipicolinate-N-succinyltransferase, THDP-succinyltransferase, DapD
33	<a href="#">d2f9ca1</a>	Alignment	not modelled	99.8	22	<b>Fold:</b> Single-stranded left-handed beta-helix <b>Superfamily:</b> Trimeric LpxA-like enzymes <b>Family:</b> Ydck-like
34	<a href="#">c3q1xA_</a>	Alignment	not modelled	99.8	20	<b>PDB header:</b> transferase <b>Chain:</b> A: <b>PDB Molecule:</b> serine acetyltransferase; <b>PDBTitle:</b> crystal structure of entamoeba histolytica serine acetyltransferase 12 in complex with l-serine
35	<a href="#">c3brkX_</a>	Alignment	not modelled	99.8	11	<b>PDB header:</b> transferase <b>Chain:</b> X: <b>PDB Molecule:</b> glucose-1-phosphate adenyltransferase; <b>PDBTitle:</b> crystal structure of adp-glucose pyrophosphorylase from2 agrobacterium tumefaciens
36	<a href="#">d1ocxa_</a>	Alignment	not modelled	99.7	18	<b>Fold:</b> Single-stranded left-handed beta-helix <b>Superfamily:</b> Trimeric LpxA-like enzymes <b>Family:</b> Galactoside acetyltransferase-like
37	<a href="#">d1v3wa_</a>	Alignment	not modelled	99.7	19	<b>Fold:</b> Single-stranded left-handed beta-helix <b>Superfamily:</b> Trimeric LpxA-like enzymes <b>Family:</b> gamma-carbonic anhydrase-like
38	<a href="#">d3bswa1</a>	Alignment	not modelled	99.7	24	<b>Fold:</b> Single-stranded left-handed beta-helix <b>Superfamily:</b> Trimeric LpxA-like enzymes <b>Family:</b> Pgl D-like
39	<a href="#">c3kwda_</a>	Alignment	not modelled	99.7	15	<b>PDB header:</b> lyase, protein binding, photosynthesis <b>Chain:</b> A: <b>PDB Molecule:</b> carbon dioxide concentrating mechanism protein; <b>PDBTitle:</b> inactive truncation of the beta-carboxysomal gamma-carbonic anhydrase,2 cccm, form 1
40	<a href="#">c1fwyA_</a>	Alignment	not modelled	99.7	20	<b>PDB header:</b> transferase <b>Chain:</b> A: <b>PDB Molecule:</b> udp-n-acetylglucosamine pyrophosphorylase; <b>PDBTitle:</b> crystal structure of n-acetylglucosamine 1-phosphate2 uridyltransferase bound to udp-glcnac
41	<a href="#">c3r3rA_</a>	Alignment	not modelled	99.7	23	<b>PDB header:</b> transferase <b>Chain:</b> A: <b>PDB Molecule:</b> ferrypyochelin binding protein; <b>PDBTitle:</b> structure of the yrda ferrypyochelin binding protein from salmonella2 enterica
42	<a href="#">c3rlwA_</a>	Alignment	not modelled	99.7	18	<b>PDB header:</b> lyase <b>Chain:</b> A: <b>PDB Molecule:</b> carbonic anhydrase; <b>PDBTitle:</b> crystal structure of a carbonic anhydrase from a crude oil degrading2 psychrophilic library
43	<a href="#">c3ixcA_</a>	Alignment	not modelled	99.7	16	<b>PDB header:</b> transferase <b>Chain:</b> A: <b>PDB Molecule:</b> hexapeptide transferase family protein; <b>PDBTitle:</b> crystal structure of hexapeptide transferase family protein from2 anaplasma phagocytophylum
44	<a href="#">d1t3da_</a>	Alignment	not modelled	99.7	19	<b>Fold:</b> Single-stranded left-handed beta-helix <b>Superfamily:</b> Trimeric LpxA-like enzymes <b>Family:</b> Serine acetyltransferase
45	<a href="#">c1t3dB_</a>	Alignment	not modelled	99.7	18	<b>PDB header:</b> transferase <b>Chain:</b> B: <b>PDB Molecule:</b> serine acetyltransferase; <b>PDBTitle:</b> crystal structure of serine acetyltransferase from e.coli at 2.2a
46	<a href="#">d1ssqa_</a>	Alignment	not modelled	99.7	17	<b>Fold:</b> Single-stranded left-handed beta-helix <b>Superfamily:</b> Trimeric LpxA-like enzymes <b>Family:</b> Serine acetyltransferase
47	<a href="#">c3f1xA_</a>	Alignment	not modelled	99.7	25	<b>PDB header:</b> transferase <b>Chain:</b> A: <b>PDB Molecule:</b> serine acetyltransferase; <b>PDBTitle:</b> three dimensional structure of the serine acetyltransferase from2 bacteroides vulgatus, northeast structural genomics consortium target3 bvr62.
48	<a href="#">d1xhda_</a>	Alignment	not modelled	99.6	18	<b>Fold:</b> Single-stranded left-handed beta-helix <b>Superfamily:</b> Trimeric LpxA-like enzymes <b>Family:</b> gamma-carbonic anhydrase-like
49	<a href="#">d1xata_</a>	Alignment	not modelled	99.6	13	<b>Fold:</b> Single-stranded left-handed beta-helix <b>Superfamily:</b> Trimeric LpxA-like enzymes <b>Family:</b> Galactoside acetyltransferase-like
50	<a href="#">d1yp2a1</a>	Alignment	not modelled	99.6	18	<b>Fold:</b> Single-stranded left-handed beta-helix <b>Superfamily:</b> Trimeric LpxA-like enzymes <b>Family:</b> GlmU C-terminal domain-like
51	<a href="#">c3fsyC_</a>	Alignment	not modelled	99.6	12	<b>PDB header:</b> transferase <b>Chain:</b> C: <b>PDB Molecule:</b> tetrahydriodipicolinate n-succinyltransferase; <b>PDBTitle:</b> structure of tetrahydriodipicolinate n-succinyltransferase2 (rv1201c;dapd) in complex with succinyl-coa from mycobacterium3 tuberculosis
52	<a href="#">c3mc4A_</a>	Alignment	not modelled	99.6	14	<b>PDB header:</b> transferase <b>Chain:</b> A: <b>PDB Molecule:</b> ww/rsp5/wwp domain:bacterial transferase <b>PDBTitle:</b> crystal structure of ww/rsp5/wwp domain: bacterial2

						transferase hexapeptide repeat: serine o-acetyltransferase3 from brucella melitensis
53	<a href="#">c3eevC</a>		Alignment	not modelled	99.6	17 <b>PDB header:</b> transferase <b>Chain:</b> C: <b>PDB Molecule:</b> chloramphenicol acetyltransferase; <b>PDBTitle:</b> crystal structure of chloramphenicol acetyltransferase vca0300 from2 vibrio cholerae o1 biovar eltor
54	<a href="#">d1fxja1</a>		Alignment	not modelled	99.0	26 <b>Fold:</b> Single-stranded left-handed beta-helix <b>Superfamily:</b> Trimeric LpxA-like enzymes <b>Family:</b> GlmU C-terminal domain-like
55	<a href="#">c2riJA</a>		Alignment	not modelled	99.0	18 <b>PDB header:</b> transferase <b>Chain:</b> A: <b>PDB Molecule:</b> putative 2,3,4,5-tetrahydropyridine-2-carboxylate n- <b>PDBTitle:</b> crystal structure of putative 2,3,4,5-tetrahydropyridine-2-2 carboxylate n-succinyltransferase (cj1605c, dapd) from campylobacter3 jejuni at 1.90 a resolution
56	<a href="#">d1yp2a2</a>		Alignment	not modelled	98.8	4 <b>Fold:</b> Nucleotide-diphospho-sugar transferases <b>Superfamily:</b> Nucleotide-diphospho-sugar transferases <b>Family:</b> glucose-1-phosphate thymidylyltransferase
57	<a href="#">c2pa4B</a>		Alignment	not modelled	98.8	8 <b>PDB header:</b> transferase <b>Chain:</b> B: <b>PDB Molecule:</b> utp-glucose-1-phosphate uridylyltransferase; <b>PDBTitle:</b> crystal structure of udp-glucose pyrophosphorylase from corynebacteria2 glutamicum in complex with magnesium and udp-glucose
58	<a href="#">d1iina</a>		Alignment	not modelled	97.9	5 <b>Fold:</b> Nucleotide-diphospho-sugar transferases <b>Superfamily:</b> Nucleotide-diphospho-sugar transferases <b>Family:</b> glucose-1-phosphate thymidylyltransferase
59	<a href="#">d1h5ra</a>		Alignment	not modelled	97.8	8 <b>Fold:</b> Nucleotide-diphospho-sugar transferases <b>Superfamily:</b> Nucleotide-diphospho-sugar transferases <b>Family:</b> glucose-1-phosphate thymidylyltransferase
60	<a href="#">c2cu2A</a>		Alignment	not modelled	97.8	13 <b>PDB header:</b> transferase <b>Chain:</b> A: <b>PDB Molecule:</b> putative mannose-1-phosphate guanylyl transferase; <b>PDBTitle:</b> crystal structure of mannose-1-phosphate geranyltransferase from2 thermus thermophilus hb8
61	<a href="#">d1mc3a</a>		Alignment	not modelled	97.8	8 <b>Fold:</b> Nucleotide-diphospho-sugar transferases <b>Superfamily:</b> Nucleotide-diphospho-sugar transferases <b>Family:</b> glucose-1-phosphate thymidylyltransferase
62	<a href="#">d1lvwa</a>		Alignment	not modelled	97.5	10 <b>Fold:</b> Nucleotide-diphospho-sugar transferases <b>Superfamily:</b> Nucleotide-diphospho-sugar transferases <b>Family:</b> glucose-1-phosphate thymidylyltransferase
63	<a href="#">d1fxoa</a>		Alignment	not modelled	97.4	10 <b>Fold:</b> Nucleotide-diphospho-sugar transferases <b>Superfamily:</b> Nucleotide-diphospho-sugar transferases <b>Family:</b> glucose-1-phosphate thymidylyltransferase
64	<a href="#">c2x5sB</a>		Alignment	not modelled	96.5	6 <b>PDB header:</b> transferase <b>Chain:</b> B: <b>PDB Molecule:</b> mannose-1-phosphate guanylyltransferase; <b>PDBTitle:</b> crystal structure of t. maritima gdp-mannose2 pyrophosphorylase in apo state.
65	<a href="#">c2i5kB</a>		Alignment	not modelled	16.8	19 <b>PDB header:</b> transferase <b>Chain:</b> B: <b>PDB Molecule:</b> utp--glucose-1-phosphate uridylyltransferase; <b>PDBTitle:</b> crystal structure of upg1p
66	<a href="#">d2icya1</a>		Alignment	not modelled	13.8	13 <b>Fold:</b> Single-stranded left-handed beta-helix <b>Superfamily:</b> Trimeric LpxA-like enzymes <b>Family:</b> GlmU C-terminal domain-like