1a. Personal details					
Full name	Prof.	Renwick	*Charles Joseph*	**Dobson**	
Present position		Co-Director of Biomolecular Interaction Centre; Professor			
Organisation/Employer		University of Canterbury			
Contact Address		School of Biological Sciences			
		Private Bag 4800, Christchurch		**Post code**	8140
Work telephone		+64 3 369-5145 x 95145	**Mobile**		
Email		renwick.dobson@canterbury.ac.nz			
Personal website		https://www.dobsonlab.org/ https://scholar.google.ca/citations?user=uFUKz5kAAAAJ&hl=en			

1b. Academic qualifications

2004 **PhD,** Biochemistry, University of Canterbury
1996 **B.Sc.,** Double Major: Chemistry & Biochemistry, University of Canterbury

1c. Professional positions held

2019– **Professor**, School of Biological Sciences, University of Canterbury.
2017– **Co-Director, Biomolecular Interaction Centre**.
2016–18 **Associate Professor**, School of Biological Sciences, University of Canterbury.
2012–15 **Senior Lecturer**, School of Biological Sciences, University of Canterbury.
2013– **Honorary Research Fellow**, Department of Biochemistry and Molecular Biology, University of Melbourne.
2010–11 **Lecturer**, School of Biological Sciences, University of Canterbury.
2009–12 **C.R. Roper Senior Research Fellow**, Dept. Biochemistry and Molecular Biology, University of Melbourne.
2007–09 **Postdoctoral Research Fellow**, Department of Biochemistry and Molecular Biology, University of Melbourne.
2006–07 **Lecturer**, School of Biological Sciences, University of Canterbury (Short term contract: undergraduate lectures, all levels).
2004–07 **Postdoctoral Research Fellow**, School of Biological Sciences, University of Canterbury.
2001–07 **Biochemistry Laboratory Supervisor/Demonstrator**, School of Biological Sciences, University of Canterbury.

1d. Present research/professional speciality

My position constitutes research (40%), teaching (40%, c. 110 hr undergraduate contact p.a.) and administration (20%, Co-Director of BIC, Coordinator of Biochemistry at UC).

Present Research

I established my lab at UC in 2011, building a broad research programme centred on the interactions of biomolecules, their structure and function, and the application of proteins and enzymes in industrial settings.

Professional Speciality

My research is interdisciplinary, blending structural biology with chemistry, molecular engineering, enzymology and chemical biology. Contributions to the field include:

- Membrane protein structure and function.
- Studying biomolecular interactions, particularly for diagnostics.
- Delineation of enzyme mechanism and regulation.
- Engineering and evolution of enzyme function.
- Structural biology: 69 structures in the PDB.

I review: **1)** manuscripts for top journals (*PNAS, ChemBioChem, Biochem J*, *Acta Cryst D, PLoS One, Biochemistry*, *Acta Cryst F* and *FEBS J*); **2)** grants for the US Army Research Office (~$1.5M per app.), MBIE (~$1M), NZ Cancer Society, HRC, AMRF and NH&MRC (Aust.); and **3)** science applications for the Australian Synchrotron MX & SAXS beamlines.

I have delivered on **NZ$12.2M** in external research funding as the lead PI since 2008.

1e. Total years research experience	15 years (professional experience)

1f. Professional distinctions and memberships (including honours, prizes, scholarships, boards or governance roles, etc.)

2019 Appointed to the Marsden CMP panel.
2019 Invited speaker (funded) NZ Cryo-EM symposium (Dunedin).
2018– Appointed to a NZ Health Research Council scientific panel.
2018 Winner of the UC/Astrolab Innovation award ($25K in prize money).
2018 Winner of a UC Innovation award ($25K in prize money).
2018– Appointed Chair of the Australian Synchrotron BioSAXS Advisory Committee.
2018– Appointed to the scientific panel for the Canterbury Medical Health Foundation.
2018– Elected convener of AUC2019, to be held in Christchurch, August 2019.
2017 Invited speaker Crystal 31 (Perth, Aust.).
2017– Appointed to the Australian Synchrotron Program Advisory Committee, SAXS.
2017 Instructor, 2017 Advanced AUC Workshop, Delware, USA (funded).
2017 Invited speaker NZSBMB annual conference, Dunedin, (funded).
2017 Invited Speaker, QMB2017, Proteins Symposium, Queenstown (funded).
2017 Program Committee, AUC2017, Glasgow, Scotland.
2017 Invited Speaker, InStem Institute, Bangalore, India (funded).
2016 Winner of UC TechJump Start award ($20K prize).
2016 Organising Committee, QMB2016, Nelson (invited speaker/session chair).
2016 Finalist for the Kiwinet Awards (w/ CSL Ltd.)—Partnerships category.
2016– Coordinator for Undergraduate Biochemistry (University of Canterbury).
2015 Organising Committee, Combio2015, Melbourne, Aust.
2014– Associate Investigator, Riddet Institute.
2014 Invited Speaker, Combio2014 (Proteins Stream, Canberra, Aust.).
2013–16 Appointed Dept. Director of Biochemistry, University of Canterbury.
2013 Co-convener for the "E^3 Symposium", QMB2013.
2013 Invited Speaker, 37th Conference of the Australian Society for Biophysics.
2013 Associate Investigator, Maurice Wilkins Centre for Molecular Biodiscovery.
2012–16 Elected Treasurer, NZ Society of Biochemistry and Molecular Biology.
2012–14 Co-Chair of the Australian Synchrotron MX Program Advisory Committee (PAC).
2011 Co-convener for the "Biointeractions Symposium" (QMB2011).
2011– Appointed to the Academic Editorial Board of the journal *PLoS One.*
2010– Primary Investigator, BIC, University of Canterbury.
2010–12 Affiliate Investigator, Maurice Wilkins Centre for Molecular Biodiscovery.
2010 Research Fellow, Photon Factory, Tsukuba, Japan (Oct-Nov, 2010).
2010 Invited Speaker, Photon Factory, Tsukuba, Japan.
2010 Invited Speaker, 2nd NZ Structural Biology meeting, Auckland, New Zealand.
2009–12 Awarded C.R. Roper Senior Research Fellowship, University of Melbourne.
2009 Invited Speaker, ComBio2009, Christchurch, New Zealand.
2009 Invited Speaker, ETH, Zurich, Switzerland (host Prof. van Gunsteren).
2009 Invited Speaker, EMBL Hamburg, Germany (host Prof. Weiss).
2008 Invited Speaker, 4th AOHUPO and 2nd PRICPS Conference, Cairns, AUS.
2007–09 Awarded USA ARO Research Fellowship, Department of Biochemistry and Molecular Biology, University of Melbourne.
2004–07 Awarded Postdoctoral Position (Royal Society, Marsden), School of Biological Sciences, University of Canterbury.
2004 Best Poster Prize at the 29th Lorne Conference on Protein Structure and Function.
2003–04 NZ Institute of Chemistry Travel Grants to attend international conferences.
2000–03 Crop and Food Ltd PhD Scholarship.

Memberships: NZSBMB, SCANZ, ASBMB, RSNZ, NZIC.

1g. Total number of *peer reviewed* publications and patents	Journal articles	Book chapters	Conference proceedings
	104	**4**	**>100**

2a. Research publications and dissemination

Peer-reviewed journal articles **(Selected only, due to space restrictions)**

104. McKerchar H, Clerens S, **Dobson R**, Maes E, Dyer J, Gerrard J (**2019**) Protein-protein crosslinking in food: characterisation methods, consequences and applications. *Trends Food Sci Technol* (*in press*)
103. Mantravadi P, Kalesh K, **Dobson R**, Hudson A, Parthasarathy A (**2019**) The quest for novel antibiotics and antimicrobial compounds: Emerging trends in research, development and technologies. *Antibiotics (in press)*
102. Crowther J, Cross P, Oliver M, Leeman M, Bartl A, Weatherhead A, North R, Donovan K, Griffin M, Suzuki H, Hudson A, Kasanmascheff M, **Dobson R** (**2019**) Structure-function analyses of two plant meso-diaminopimelate decarboxylase isoforms reveal that active-site gating provides stereochemical control. *J Biol Chem (accepted)*
101. Gilkes J, Sheen C, Frampton R, Smith G, **Dobson R** (**2019**) The first purification of functional proteins from the unculturable, genome reduced, bottlenecked alpha-proteobacterium *Candidatus Liberibacter* solanacearum. *Phytopath (accepted)*
100. Davies J, Coombes D, Horne C, Pearce F, Friemann R, North R, **Dobson R** (**2019**) Solution studies of *S. aureus N*-acetylglucosamine-6-phosphate deacetylase and glucosamine-6-phosphate deaminase. *FEBS Lett* 593:52–66
99. Schlechter R, Jun H, Bernach M, Oso S, Boyd E, Muñoz-Lintz D, **Dobson R**, Remus D, Remus-Emsermann M (**2018**) Chromatic Bacteria—A broad host-range plasmid and chromosomal insertion toolbox for fluorescent protein expression in bacteria. *Front Microbiol* 9:3052
98. Foglizzo M, Middleton A, Burgess A, Crowther J**, Dobson R**, Murphy J, Day C, Mace P (**2018**) A bidentate Polycomb Repressive-Deubiquitinase complex is required for efficient activity on nucleosomes. *Nat Commun* 9:3932
97. North R, Wahlgren W, Remus D, Scalise M, Kessans S, Dunevall E, Claesson E, Soares da Costa T, Perugini M, Subramanian R, Allison J, Indiveri C, Friemann R, **Dobson R** (**2018**) The sodium sialic acid symporter from *Staphylococcus aureus* has altered substrate specificity. *Front Chem* 6:233
96. Manjunath L, Guntupalli S, Currie M, North R, **Dobson R**, Nayak V, Subramanian R **(2018)** Crystal structure and kinetic analysis of *N*-acetylmannosamine-6-phosphate 2-epimerase from *Fusobacterium nucleatum* and *Vibrio cholerae.* *Acta Cryst F* 74:431–40
95. Crowther J, Allison J, Smolenski G, Hodgkinson A, Jameson G & **Dobson R** (**2018**) The self-association and thermal denaturation of caprine and bovine β-lactoglobulin. *Eur Biophys J* 47:439
94. Atkinson S, Dogovski C, Wood K, Griffin M, Gorman M, Hor L, Reboul C, Buckle A, Wuttke J, Parker M, **Dobson R** & Perugini M (**2018**) Substrate locking promotes dimer-dimer docking of an enzyme antibiotic target. *Structure* 26:948
93. Wahlgren W[#], Dunevall E[#], North R[#], *et al.*, **Dobson R**, Abramson J, Ramaswamy S, Friemann R (**2018**) Substrate-bound outward-open structure of a Na^+-coupled sialic acid symporter reveals a novel Na^+ site. *Nat Commun* 9:1753
92. Parthasarathy A, Cross P, **Dobson R**, Adams L, Savka M & Hudson A (**2018**) A three-ring circus: Metabolism of the three proteogenic aromatic amino acids and their role in the health of plants and animals. *Front Mol Biosci* 5:304–30
91. Love M, Bhandari D, **Dobson R** & Billington C (**2018**). Potential for bacteriophage endolysins to supplement or replace antibiotics in food production and clinical care. *Antibiotics* 7(1):17
90. Peng F, Widmann S, Wünsche A, Duan K, Donovan K, **Dobson R**, Lenski R, Cooper T (**2018**) Effects of beneficial mutations in pykF gene vary over time and across replicate populations in a long-term experiment with bacteria. *Mol Biol Evol* 3 5:202–10
89. Gilkes J, Frampton R, Smith G, **Dobson R** (**2018**) Potential pathogenicity determinants in the genome of '*Candidatus* Liberibacter solanacearum', the causal agent of Zebra Chip disease of potato. *Australas Plant Pathol* 47:119 *Invited review*
88. North R, Horne C, Davies J, Remus D, Muscroft-Taylor A, Goyal P, Ramaswamy S, Friemann R, **Dobson R** (**2018**) "Just a spoonful of sugar...": import of sialic acid across

bacterial cell membranes. *Biophys Rev* 10:219 *Invited review*

87. Pearce F, Hudson A, Loomes K, **Dobson R** (**2017**) Dihydrodipicolinate synthase: Structure, dynamics, function, and evolution. *Subcell Biochem* 83:271–89
86. Kavianinia I, Yang S, Kaur H, Harris P, **Dobson R**, Fairbanks A, Brimble M (**2017**) Synthesis and incorporation of an advanced lipid peroxidation end-product building block into collagen mimetic peptides. *Chem Comm* 53:8459–62
85. Rogov V, Stolz A, Ravichandran A, Law A, Suzuki H, Kniss A, Rios-Szwed D, Löhr F, Wakatsuki S, Dötsch V, Dikic I, **Dobson R*** & McEwan D* (**2017**) Structural and functional analysis of the GABARAP interaction motif (GIM). *EMBO R* 18:1382–96 *Dobson is co-corresponding author*
84. North R, Horne C, Davies J, Remus D, Muscroft-Taylor A, Goyal P, Ramaswamy S, Friemann R, **Dobson R** (**2017**) "Just a spoonful of sugar...": import of sialic acid across bacterial cell membranes. *Biophys Rev* 1-9 *Invited review*
83. North R, Watson A, Pearce G, Muscroft-Taylor A, Friemann R, Fairbanks A, **Dobson R** (**2016**) Structure and inhibition of *N*-acetylneuraminate lyase from methicillin-resistant *Staphylococcus aureus.* *FEBS Lett* 590:4414–28
82. Naqvi K, Patin D, Wheatley M, Savka M, **Dobson R,** Gan H, Barreteau H, Blanot D, Mengin-Lecreul D, Hudson A (2016) Identification and partial characterization of a novel UDP-N-acetylenolpyruvoylglucosamine reductase/UDP-N-acetylmuramate:L-alanine ligase fusion enzyme from *Verrucomicrobium spinosum* DSM 4136T. *Front Microbiol* 7:362.
81. Umu S, Poole A, **Dobson R** & Gardner P (**2016**) Avoidance of stochastic RNA interactions can be harnessed to control protein expression levels in bacteria and archaea. *Elife* 5:e13479 *Featured commentary*
80. Lee L, Joshi N, Pasini R, **Dobson R**, Allison J, Leustek T (**2016**) Inhibition of arabidopsis growth by the allelopathic compound azetidine-2-carboxylate is due to the low amino acid specificity of cytosolic prolyl-tRNA synthetase. *Plant J* 88:236–46
79. Poen S, Nakatani Y, Opel-Reading H, Lassé M, **Dobson R**, Krause K (**2016**) Exploring the structure of glutamate racemase from *Mycobacterium tuberculosis* as a template for anti-mycobacterial drug discovery. *Biochem J* 437:1267–80 *Invited cover*
78. Chen K, **Dobson R**, Lucet I, Young S, Pearce F, Blewitt M, Murphy J (**2016**) The epigenetic regulator Smchd1 contains a functional GHKL-type ATPase domain. *Biochem J* 473:1733–44
77. Cala A, Nadeau M, Abendroth J, Staker B, Reers A, Weatherhead A, **Dobson R**, Myler P, Hudson A (**2016**) The crystal structure of dihydrodipicolinate reductase from the human-pathogenic bacterium *Bartonella henselae* strain Houston-1 at 2.3 Å resolution. *Acta Cryst F* 72:885–91
76. Donovan K, Zhu S, Liuni P, Peng F, Kessans S, Wilson D, **Dobson R** (**2016**) Con-formational dynamics and allostery in pyruvate kinase. *J Biol Chem* 291:9244–56
75. Klionsky, D. J.; *et al.* (2016) Guidelines for the use and interpretation of assays for monitoring autophagy (3rd edition). *Autophagy* 12:1-222.
74. Donovan K, Atkinson S, Kessans S, Peng F, Cooper T, Griffin M, Jameson G, **Dobson R** (**2016**) Grappling with anisotropic data, pseudo-merohedral twinning and pseudo-translational non-crystallographic symmetry: A case study involving pyruvate kinase. *Acta Cryst D* 72:512–9
73. Naqvi K, Staker B, **Dobson R,** Serbzhinskiy D, Sankaran B, Myler, P. J.; Hudson A (2016) Cloning, expression, purification, crystallization and X-ray diffraction analysis of dihydrodipicolinate synthase from the human pathogenic bacterium *Bartonella henselae* strain Houston-1 at 2.1 Å resolution. *Acta Cryst F* 72:2-9.
72. Chen K, Hu J, Moorea D, Liua R, Kessans S, Breslin K, Luceta I, Keniry A, Leong H, Parish S, Hilton D, Lemmers R, van der Maarel S, Czabotar P, **Dobson R** *et al.* (**2015**) Genome-wide binding and mechanistic analyses of Smchd1 mediated epigenetic regulation. *PNAS* 112:E3535–44
71. Suzuki H*, Tabata K, Morita E, Kawasaki M, Kato R, **Dobson R***, Yoshimori T, Wakatsuki S. (**2014**) Structural basis of the autophagy-related LC3/Atg13 LIR complex: Recognition and interaction mechanism. *Structure* 22:47–58 *Corresponding author,*

invited cover, featured article

70. Hildebrand J, Tanzer M, Lucet I, Young S, Spall S, Sharma P, Pierotti C, Garnier J, **Dobson R** *et al.* (**2014**) Activation of the pseudokinase MLKL unleashes the four-helix bundle domain to induce membrane localization and necroptotic cell death. *PNAS* 111:15072–7
69. Crowther J, Lassé M, Suzuki H, Kessans S, Loo T, Norris G, Hodgkinson A, Jameson G, **Dobson R** (**2014**) Ultra-high resolution crystal structure of recombinant caprine β-lactoglobulin. *FEBS Lett* 588:3816–22
68. Oliver M, Crowther J, Leeman M, Kessans S, North R, Donovan K, Griffin M, Suzuki H, Hudson A, Kasanmascheff M, **Dobson R** (2014) "The purification, crystallization and preliminary X-ray diffraction analysis of two isoforms of *meso*-diaminopimelate decarboxylase from *Arabidopsis thaliana*." *Acta Cryst F* 70:663–8.
67. Putoczki R, **Dobson R,** Griffin M. (**2014**) The crystal structure of human interleukin-11 reveals receptor binding site features and structural differences from interleukin-6. *Acta Cryst D* 70:2277–85
66. Triassi A, WheatleyM, Savka M, Gan H, **Dobson R,** Hudson A (**2014**) "*L,L*-diaminopimelate aminotransferase (DapL): a putative target for the development of narrow-spectrum antibacterial compounds." *Front Microbial* 5:509.
65. North R, Kessans S, Griffin M, Watson A, Fairbanks A, **Dobson R** (**2014**) "Cloning, expression, purification, crystallization and preliminary X-ray diffraction analysis of *N*-acetylmannosamine-6-phosphate 2-epimerase from methicillin-resistant *Staphylococcus aureus*." *Acta Cryst F* 70:650–5.
64. North R, Seizova S, Stampfli A, *et al.* & **Dobson R** (**2014**) Cloning, expression, purification, crystallization and preliminary X-ray diffraction analysis of *N*-acetyl-mannosamine kinase from methicillin-resistant *S. aureus*. *Acta Cryst F* 70:643–9
63. Atkinson S Dogovski C, **Dobson R**, Perugini M (**2014**) Identification of the *bona fide* DHDPS from a common plant pathogen. *Proteins* **82**:1869–83
62. McKinnie S, Rodriguez-Lopez E, Vederas J, Crowther J, Suzuki H, **Dobson R,** Leustek T, Triassi A, Wheatley M, Hudson A (**2014**) Differential response of orthologous *L,L*-diaminopimelate aminotransferases (DapL) to enzyme inhibitory antibiotic lead compounds. *Bioorg Med Chem* 22:523–30
61. Nazmi A, Schofield L, **Dobson R**, Jameson G, Parker E (**2014**) Destabilization of the homotetrameric assembly of 3-deoxy-*D*-arabinoheptulosonate-7-phosphate synthase from the hyperthermophile *P. furiosus* enhances enzymatic activity. *J Mol Biol* 426:656–73
60. Murphy J, Czabotar P, Hildebrand J, Lucet I, Zhang J, Alvarez-Diaz S, Lewis R, Lalaoui N, Metcalf D, Young S, Varghese L, Tannahill G, Hatchell E, Majewski I, Okamoto T, **Dobson R**, *et al.* (2013) Regulation of necroptosis by the pseudokinase Mixed Lineage Kinase domain-Like. *Immunity* 39:443–53
59. Cross P, Allison T, **Dobson R**, Jameson G, Parker E (2013) Engineering allosteric control to an unregulated enzyme by transfer of a regulatory domain. *PNAS* 10:2111–6
58 McGroty S, Pattaniyil D, Patin D, Blanot D, Ravichandran A, Suzuki H, **Dobson R**, Savka M, Hudson A (2013) Biochemical characterization of UDP-*N*-acetylmuramoyl-*L*-alanyl-*D*-glutamate:*meso*-2,6-diaminopimelate ligase (MurE) from *Verrucomicrobium spinosum* DSM 4136^T. *PLoS One* 8:e66458
57. Hor L, **Dobson R**, Downton M, Hutton C, Perugini M (2013) Dimerization of bacterial DAP epimerase is essential for catalysis. *J Biol Chem* 288:9238–48
56. North R, Kessans S, Atkinson S, Suzuki H, Watson A, Burgess B, Angley L, Hudson A, Varsani A, Griffin M, Fairbanks A, **Dobson R** (2013) Cloning, expression, purification, crystallization and preliminary X-ray diffraction studies of *N*-acetyl neuraminate lyase from methicillin-resistant *S. aureus*. *Acta Cryst F* 69:306–12
55. Atkinson S, Dogovski C, Downton M, Czabotar P, **Dobson R**, Gerrard J, Perugini M (2013) Structural, kinetic and computational investigation of *V. vinifera* DHDPS reveals new insight into the mechanism of lysine-mediated allosteric inhibition. *Plant Mol Biol* 81:431–46

54 Sikorski A, Arguello-Astorga G, Dayaram A, **Dobson R**, Varsani A (2013) Discovery of a novel circular single-stranded DNA virus from porcine faeces. *Arch Virol* 158:283-9

53 Mercadante D, Melton L, Norris G, Loo T, Williams M, **Dobson R**, Jameson G (2012) Bovine β-lactoglobulin is dimeric under imitative physiological conditions: dissociation equilibrium and rate constants over the pH range of 2.5-7.5. *Biophys J* 103:303-12 *(front cover art and featured article)*

52 Boughton B, **Dobson R**, Hutton C (2012) The crystal structure of DHDPS from *E. coli* with bound pyruvate and succinic acid semialdehyde: unambiguous resolution of the stereochemistry of the condensation product. *Proteins* 80:2117-22

51 Griffin M, Billakanti J, Wason A, Keller S, Mertens H, Atkinson S, **Dobson R**, Perugini M, Gerrard J, Pearce F (2012) Characterisation of the first enzymes committed to lysine biosynthesis in *Arabidopsis thaliana*. *PLoS One* 7:e40318

50. Atkinson S, Dogovski C, **Dobson R,** Perugini M (2012) Cloning, expression, purification and crystallization of dihydrodipicolinate synthase from *Agrobacterium tumefaciens*. *Acta Cryst F* 68:1040-7.

49. Nachar V, Savka F, McGroty S, Donovan K, North R, **Dobson R**, Buckley L, Hudson A (2012) Genomic and biochemical analysis of the diaminopimelate and lysine biosynthesis pathway in *verrucomicrobium spinosum*: Identification and partial characterization of *l,l*-diaminopimelate aminotransferase and UDP-*N*-acetylmuramoylalanyl-*d*-glutamyl-2,6-*meso*-diaminopimelate ligase. *Front Microbiol* 3:183.

48. Atkinson S, Dogovski C, Downton M, Pearce F, Reboul C, Buckle A, Gerrard J, **Dobson R**, Wagner J, Perugini M (2012) Crystal, solution and *in silico* structural studies of dihydrodipicolinate synthase from the common grapevine. *PLoS One* 7(6):e38318.

47. Reboul C, Porebski B, Griffin M, **Dobson R**, Perugini M, Gerrard J, Buckle A (2012) Structural and dynamic requirements for optimal activity of the essential bacterial enzyme dihydrodipicolinate synthase. *PLoS Comput Biol* 8(6):e1002537.

46. Dayaram A, Opong A, Jaschke A, Hadfield J, Baschiera M, **Dobson R**, Offei S, Shepherd D, Martin D, Varsani A (2012) Molecular characterisation of a novel cassava associated circular ssDNA virus. *Virus Res* 166(1-2):130-5.

45. Griffin M, Billakanti J, Gerrard J, **Dobson R**, Pearce F (2011) Crystallization and preliminary X-ray diffraction analysis of dihydrodipicolinate synthase 2 from Arabidopsis thaliana. *Acta Cryst F* 67:1386-90

44. Hudson A, Girón I, **Dobson R** (2011) Crystallization and preliminary X-ray diffraction analysis of *L,L*-diaminopimelate aminotransferase from *C. reinhardtii*. *Acta Cryst F* 67:140-3

43. **Dobson R**, Girón I, Hudson A (2011) *L,L*-Diaminopimelate aminotransferase from *C. reinhardtii*: a target for algaecide development. *PloS One* 6:e20439

42. Gunn N, Gorman M, **Dobson R**, Parker M, Mulhern T (2011) Purification, crystallisation, small-angle X-ray scattering and preliminary X-ray diffraction analysis of the SH2 domain of Csk-homologous kinase. *Acta Cryst F* 67(Pt 3):336-9.

41. Veldhuis N, Kuiper M, **Dobson R**, Pearson R, Camakaris J (2011) *In silico* modelling of the Menkes copper-translocating P-type ATPase 3rd metal binding domain predicts that phosphorylation regulates copper-binding. *Biometals* 24:477

40. Evans G, Schuldt L, Griffin M, Devenish S, Pearce F, Perugini M, **Dobson R**, Jameson G, Weiss M, Gerrard J (**2011**) A tetrameric structure is not essential for activity in dihydrodipicolinate synthase (DHDPS) from *M. tuberculosis*. *Arch Biochem Biophys* 512:154-9

39. Pearce F, **Dobson R**, Jameson G, Perugini M, Gerrard J (2011) Characterization of monomeric dihydrodipicolinate synthase variant reveals the importance of substrate binding in optimizing oligomerization. *Biochim Biophys Acta* 1814:1900-9

38. Cross P, **Dobson R**, Patchett M, Parker E (2011) Tyrosine-latching of a regulatory gate affords allosteric control of aromatic amino acid biosynthesis. *J Biol Chem* 286(12):10216-24

37. Hudson A, Klartag A, Gilvarg C, **Dobson R**, Marques F, Leustek T (2011) Dual

diaminopimelate biosynthesis pathways in *Bacteroides fragilis* and *Clostridium thermocellum*. *Biochim Biophys Acta* 1814:1162-8

36. Atkinson S, Dogovski C, Newman J, **Dobson R,** Perugini M (2011) Cloning, expression, purification and crystallization of dihydrodipicolinate synthase from the grapevine *Vitis vinifera*. *Acta Cryst F* 67(Pt 12):1537-41.

35 Voss J, Scally S, Taylor N, Griffin M, Newman J, Hutton C, Parker M, Gerrard J, Alderton M, Dogovski C, **Dobson R,** Perugini M (2010) Substrate-mediated stabilization of the active tetrameric form of an antibiotic target from *B. anthracis.* *J Biol Chem* 285:5188-95

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33 Soares da Costa T, Muscroft-Taylor A, **Dobson R**, Devenish S, Jameson G, Gerrard J (2010) How essential is the 'essential' active-site lysine in dihydrodipicolinate synthase? *Biochimie* 92:837-45

32. Dommaraju S, Gorman M, Dogovski C, Pearce F, Gerrard J, **Dobson R**, Parker M, Perugini M (2010) Cloning, expression and crystallization of dihydrodipicolinate reductase from methicillin-resistant *Staphylococcus aureus.* *Acta Cryst F* 66:57-60.

31. Wubben J, Dogovski C, **Dobson R**, Codd R, Gerrard J, Parker M, Perugini M (2010) Cloning, expression, purification and crystallization of dihydrodipicolinate synthase from the psychrophile *Shewanella benthica*. *Acta Cryst F* 66:1511-6.

30. Hor L†, **Dobson R†**, Dogovski C,Hutton C, Perugini M (2010) Crystallization and preliminary X-ray diffraction analysis of diaminopimelate epimerase from *E. coli.* *Acta Cryst F* 66:37-40

29 Griffin M, **Dobson R**, Gerrard J, Perugini M (2010) Exploring the dihydrodipicolinate synthase tetramer: How resilient is the dimer-dimer interface? *Arch Biochem Biophys* 494:58-63 *Invited journal cover illustration*

28. Muscroft-Taylor A, Catchpole R, **Dobson R**, Pearce F, Perugini M, Gerrard J (2010) Disruption of quaternary structure in *Escherichia coli* dihydrodipicolinate synthase (DHDPS) generates a functional monomer that is no longer inhibited by lysine. *Arch Biochem Biophys* 503(2):202-6

27. Chan K, Lio D, **Dobson R,** Hossain M, Roslee A, Ia K, Perugini M, Cheng H (2010) Development of the procedures for high-yield expression and rapid purification of active recombinant Csk-homologous kinase (CHK): comparison of the catalytic activities of CHK and CSK. *Protein Expr Purif* 74:139-47

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