CURRICULUM VITAE

Surname:	TODD
Given names:	RICHARD BARRY
Address:	Department of Plant Pathology
	Kansas State University
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EDUCATION

1998	Ph.D., Genetics, The University of Melbourne.
	Advisors: Prof. Michael J. Hynes FAA, Assoc. Prof. Meryl A. Davis
4004	D. C. (Lana) Constine. The Link service of Adalaida

- 1991 B.Sc.(Hons), Genetics, The University of Adelaide. Advisors: Dr Joan M. Kelly, Prof. Jeremy N. Timmis
- 1990 B.Sc., Genetics, Biochemistry, The University of Adelaide.

CURRENT POSITION

2015 – present.	Associate Professor, Department of Plant Pathology,
	Kansas State University.

- 2008 2015. Assistant Professor, Department of Plant Pathology, Kansas State University.
- 2008 present. Plant Pathology Graduate Faculty, Kansas State University.
- 2008 present. Genetics Graduate Faculty, Kansas State University.
- 2011 present. Faculty Affiliate, Johnson Center for Basic Cancer Research, Kansas State University.
- 2008 present. Research Associate (Honorary), Department of Genetics, The University of Melbourne, Parkville, Vic Australia.

PREVIOUS FACULTY POSITIONS

- 2008 Lecturer Level B (Fixed Term Learning Management System (LMS) Course Material Design) Teaching and Research Position. Department of Genetics, The University of Melbourne, Parkville, Vic, Australia.
- 2003 2007 Lecturer Level B (Fixed Term Replacement) Teaching and Research Position. Department of Genetics, The University of Melbourne, Parkville, Vic, Australia.

RESEARCH POSITIONS

- 1998 –2003 Post-Doctoral Research Fellow, Department of Genetics, The University of Melbourne, Parkville, Vic, Australia.
 - Mentors: Assoc. Prof. Alex Andrianopoulos, Prof. Michael J. Hynes.
- 1998 Post-Doctoral Research Fellow, Department of Genetics, The University of Adelaide, Adelaide, SA, Australia.
 - Mentor: Dr Joan M. Kelly.
- 1996 1998 Post-Doctoral Fellow, Biotechnology Laboratory and Department of Botany, The University of British Columbia, Vancouver, B.C., Canada. Mentor: Prof. N. Louise Glass.

RESEARCH PROGRAM SUMMARY

I am internationally known for characterizing the function of transcription factors (proteins that control gene expression) and how they control carbon and nitrogen utilization in fungi. My work has increased our understanding of how the information encoded by nutrient metabolism genes is used differentially, depending on nutrient quality and availability, to coordinate nutrient acquisition in *Aspergillus nidulans*, an important genetic model for both harmful and beneficial molds.

My most significant contributions are:

• Increasing our understanding of the molecular mechanisms that control genes for metabolism of nutrients in the mold Aspergillus.

• Characterizing Aspergillus transcription factors that control nitrogen metabolic gene expression and nitrogen nutrient use.

• Showing that Aspergillus distinguishes starvation from nitrogen nutrient limitation.

• Discovering regulated localization within the nucleus of the cell of the key nitrogen transcription factor AreA as a novel control mechanism.

• Discovering dual DNA-binding and coactivator modes of action as alternative regulatory mechanisms for fungal transcription factors.

• Characterizing the function and DNA binding of the key transcription factor that controls genes for acetate metabolism in Aspergillus.

• Cloning a regulatory gene involved in turning off genes for metabolism of alternative carbon nutrients when glucose is available in Aspergillus.

• One of the first detailed molecular studies in the human fungal pathogen *Penicillium marneffei*, which causes Penicilliosis and is one of the top killers of AIDS patients in South-East Asia. My work identified a gene that controls production of the infectious spore and the yeast form that infects human cells causing disease.

• One of the first studies in any organism of mining genome sequence data to assign function to transcription factors by similarity to known regulators.

• Publishing protocols for genetic analysis of the mold *Aspergillus nidulans* used in Aspergillus labs around the world.

• Developing protocols for visualization of proteins within Aspergillus cells using antibodies and fluorescence microscopy.

Relevance of my work for fungal disease prevention, fungal biotechnology, and agriculture:

• Many enzymes for nitrogen use by plants are also found in Aspergillus, and similarities in how these enzymes are regulated occur between plants and fungi.

• Molds cause diseases in plants responsible for devastating crop failures and significant economic losses. Molds also cause diseases in animals and humans (e.g. Aspergillosis), and kill patients whose immune system is compromised or suppressed.

• Aspergillus can produce harmful toxins that contaminate feed and food and may cause cancer (e.g. aflatoxin).

• Aspergillus carries out beneficial processes including (a) break down of complex organic matter (e.g. leaf litter) to nutrients used by plants for growth, (b) production of enzymes used to make foods (e.g. fermentation of soy sauce and additives for food processing), and (c) production of beneficial metabolites (e.g. citric acid used as a preservative, antibiotics, and the cholesterol lowering drug lovastatin).

• Regulation of nitrogen and carbon nutrient metabolism is essential for molds to grow and reproduce, and is a key factor for molds to cause disease and produce harmful or beneficial metabolites and enzymes.

• Manipulation of fungal genes, nutrient metabolic gene expression, and gene regulation is needed to optimize production of fungal products and for discovery of cryptic secondary metabolites.

Recent (2014) and current collaborators:

• Samara L. Reck-Peterson (Harvard Medical School, USA), Ronald P. de Vries (CBS Center for Fungal Biodiversity-Utrecht, The Netherlands), Koon Ho Wong (University of Macau, Macau SAR, China), Meryl A. Davis (University of Melbourne, Australia), Margaret E. Katz (University of New England, Australia), Michael J. Hynes (University of Melbourne, Australia), Hubertus Haas (Innsbruck) Medical University, Austria), Berl Oakley (University of Kansas, USA), Megan Kennelly (Kansas State University, USA).

PUBLICATIONS

Citation Indices

Google Scholar (August 2015): Citations: 851; h-index: 15; i10-index: 17.

Papers in refereed journals

25 journal articles: 11 first author papers, 8 corresponding author papers.

- Key: ¹ Kansas State University graduate student advisee/mentee ² Kansas State University undergraduate student mentee

 - ³ Kansas State University research assistant supervisee
 - ⁴ University of Melbourne Postdoctoral co-advisee
 - ⁵ University of Melbourne undergraduate student co-advisee
 - ⁶ University of Melbourne research assistant supervisee
 - ^C Corresponding author
 - ⁼ equal contribution
 - KAES (Kansas Agricultural Experiment Station)

25. Benoit, I., Zhao, M., Viva Duartes, A., Downes, D.J.¹, Todd, R.B., Kloezen, W., Post, H., Heck, A.J.R., Altelaar, A.F.M., and de Vries, R.P. (2015) Spatial differentiation in Aspergillus niger colony grown for sugar beet pulp utilization. Scientific Reports. 5: 13592. doi: 10.1038/srep13592. [KAES contribution: 15-305-J]

Spatial analysis of carbon and nitrogen gene expression within the Aspergillus niger colony during degradation of the potential biofuel substrate sugar beet pulp.

24. Katz, M.E., Buckland, R., Hunter, C.C.¹, and Todd, R.B. (2015) Distinct roles for the p53-like transcription factor XprG and autophagy genes in the response to starvation Fungal Genetics and Biology. 83: 10-18.

doi: http://dx.doi.org/10.1016/j.fgb.2015.08.006 [KAES contribution: 15-091-J.]

Demonstrates that there is little regulatory cross-talk between the autolvsis and autophagy cannibalistic pathways that fungi use to scavenge nutrients when environmental nutrient sources are exhausted.

23. Downes, D.J.¹, Chonofsky, M., Tan, K., Pfannenstiel, B.T.², Reck-Peterson, S.L., and Todd. R.B.^c (2014) Characterization of the mutagenic spectrum of 4-nitroquinoline oxide (4-NQO) in Aspergillus nidulans by whole genome sequencing. G3: Genes, *Genomes, Genetics*. **4**(12): 2483-2492. *doi:10.1534/g3.114.014712*. [KAES contribution: 15-090-J]

Whole genome sequence analysis of mutants generated by chemical mutagenesis using 4-NQO in two independent genetic screens (one in my lab, the other in Samara Reck-Peterson's lab, Harvard Medical School). 4-NQO was thought to cause primarily G:C to A:T or T:A transitions based on a limited number of known substitutions in characterized mutants, but the genome-wide effects had not been determined in eukaryotes. We demonstrate that this mutagen can generate all possible nucleotide substitutions, and show that 4-NQO elicits 23-240 mutations per mutant in the mutagen concentration range used for mutagenesis.

22. Downes, D.J.¹, Davis, M.A., Wong, K.H., Kreutzberger, S.D., Hynes, M.J. and **Todd**, **R.B.**^c (2014) Dual DNA binding and coactivator functions of *Aspergillus nidulans* TamA, a Zn(II)2Cys6 transcription factor. *Molecular Microbiology* **92**: 1198-1211. [KAES contribution: 14-065-J]

Evaluated by Faculty of 1000: Katz M: F1000Prime Recommendation of [Downes DJ et al., Mol Microbiol 2014, 92(6):1198-211]. In F1000Prime, 25 Jun 2014; DOI: 10.3410/f.718358770.793496495.

F1000Prime.com/718358770#eval793496495

We showed that the TamA DNA binding motif, which was thought dispensable for function for nearly 20 years, is required for DNA binding at the gdhA promoter, and we showed that TamA is required for AreA binding to this promoter. Dual DNA-binding and co-activator function for the same transcription factor reveals a new mechanism of combinatorial control for fungal transcription factors.

21. Ostrander, J.C.¹, **Todd, R.B.**, and Kennelly, M.M. (2014) Characterization of resistance to thiophanate-methyl in Kansas isolates of *Sclerotinia homoeocarpa*. *Plant Health Progress* **15**: 80-84. [KAES contribution: 14-063-J]

DNA sequence analysis of the beta-tubulin gene identifying mutations associated with thiophanate-methyl resistance in S. homoeocarpa causing Dollar Spot, an economically important fungal disease affecting golf course putting green turf grass.

20. Hunter, C.C.^{1,2,*}, Siebert, K.S.³, Downes, D.J.¹, Wong, K.H.⁴, Kreutzberger, S.D.⁶, Fraser, J.A., Clarke, D.F.⁶, Hynes, M.J., Davis, M.A., and **Todd, R.B.^c** (2014) Multiple nuclear localization signals mediate nuclear localization of the GATA transcription factor AreA. *Eukaryotic Cell* **13**: 527-538. [KAES contribution: 14-064-J]

expedited review won as *Eukaryotic Cell* Outstanding Young Investigator Award

We identified and functionally characterized the six nuclear localization signals (NLSs) that mediate nuclear localization of the key nitrogen regulator AreA, finding redundancy and collaboration of the predicted NLSs to mediate nuclear import.

19. Todd, R.B.^{=,C}, Zhao, M.⁼, Ohm, R.A., Leeggangers, H.A.C.F., Visser, L., and de Vries, R.P. (2014) Prevalence of transcription factors in ascomycete and basidiomycete fungi. *BMC Genomics* **15**: 214. [KAES contribution: 14-055-J].

Analysis of the relative distribution of 36,636 transcription factors across 37 transcription factor classes throughout 77 ascomycete and 31 basidiomycete genomes revealed differential expansion of certain transcription factor classes in these phyla and the prevalence of specific transcription factor family members uncovered considerable regulatory diversity across the fungal kingdom.

18. Downes, D.J.¹, Davis, M.A., Kreutzberger, S.D.⁶, Taig, B.L.⁵, and **Todd, R.B.^c** (2013) Regulation of the NADP-glutamate dehydrogenase gene *gdhA* in *Aspergillus nidulans* by the Zn(II)2Cys6 transcription factor LeuB. *Microbiology* **159**: 2467-2480. [KAES Contribution No. 14-008-J]

Identifies two sites of action for the transcription factor LeuB in the promoter of the key nitrogen assimilation gene gdhA. One site conforms to the predicted consensus sequence for LeuB DNA binding; the other site is a novel sequence element.

17. Wong, K.H.⁴, Hynes, M.J., **Todd, R.B.,** and Davis, M.A. (2009) Deletion and overexpression of the *Aspergillus nidulans* GATA factor AreB reveals unexpected pleiotropy. *Microbiology.* **155**(12): 3868-3880. [KAES Contribution No. 09-352-J]

Demonstrates a role for the transcription factor AreB as a repressor in moderating elevated AreA activity during nitrogen starvation at certain promoters.

16. Makita, T., Katsuyama, Y., Kitagawa, S., Suzuki, H., Kato, N., Tani, S., **Todd, R.B.,** Hynes, M.J., Tsukagoshi, N., Kato, M., and Kobayashi, T. (2009) Inducer-dependent nuclear localization of a Zn(II)2Cys6 transcriptional activator, AmyR. *Bioscience, Biotechnology and Biochemistry.* **73**(2), 391-399. [KAES contribution: 12-186-J.]

Demonstrates regulated nuclear localization of A. nidulans AmyR, a regulator of starch utilization genes.

15. Wong, K.H., **Todd, R.B.,** Oakley, B.R., Oakley, C.E, Hynes, M.J., and Davis, M.A. (2008) Sumoylation in *Aspergillus nidulans: sumO* inactivation, overexpression and live-cell imaging. *Fungal Genetics and Biology.* **45**, 728-737.

Evaluated by Faculty of 1000 Biology: Braus G: F1000Prime Recommendation of [Wong KH et al., Fungal Genet Biol 2008, 45(5):728-37]. In F1000Prime, 11 Mar 2008; DOI: 10.3410/f.1102133.558120. F1000Prime.com/1102133#eval558120

Characterizes the role of post-translational modification by SUMOylation in A. nidulans *in growth, conidiation and sexual development.*

14. Wong, K.H., Hynes, M.J., **Todd, R.B.,** and Davis, M.A. (2007) Transcriptional control of *nmrA* by the bZIP transcription factor MeaB reveals a new level of nitrogen regulation in *Aspergillus nidulans*. *Molecular Microbiology*. **66**(2): 534-551.

Describes a new control of nitrogen utilization in A. nidulans: transcriptional control of levels of the corepressor NmrA by a newly recognized transcription activator MeaB.

13. Todd, R.B.^c, Davis, M.A., and Hynes, M.J. (2007) Genetic manipulation in *Aspergillus nidulans*: meiotic progeny for genetic analysis and strain construction. *Nature Protocols.* **2**(4): 811-821.

Invited protocols for meiotic genetic analysis of A. nidulans. Cover feature article.

12. Todd, R.B.^c, Davis, M.A., and Hynes, M.J. (2007) Genetic manipulation in *Aspergillus nidulans*: heterokaryons and diploids for complementation, dominance and haploidization analyses. *Nature Protocols.* **2**(4): 822-830.

Invited protocols for parasexual genetic analysis of A. nidulans.

11. Bernardo, S.M.H., Gray, K.-A., **Todd, R.B.,** Cheetham, B.F. and Katz, M.E. (2007) A regulatory role for non-catalytic hexokinases in *Aspergillus nidulans*. *Molecular Genetics and Genomics.* **277**(5): 519-32.

Molecular analysis of noncatalytic hexokinases HxkC and HxkD, regulators of extracellular protease production.

10. Todd, R.B.^c, Hynes, M.J., and Andrianopoulos, A. (2006) The *Aspergillus nidulans rcoA* gene is required for *veA*-dependent sexual development. *Genetics.* **174**(3): 1685-1688.

Identifies a role in regulation of sexual development for the A. nidulans TUP1 *homologue* rcoA; *positions* rcoA *genetically downstream of the key developmental regulator* veA.

9. Todd, R.B., Fraser, J.A., Wong, K.H., Davis, M.A., and Hynes, M.J. (2005) Nuclear accumulation of the GATA factor AreA in response to complete nitrogen starvation by regulation of nuclear export. *Eukaryotic Cell.* **4**(10): 1646-1653.

Evaluated by Faculty of 1000 Biology: Caddick M: F1000Prime Recommendation of [Todd RB et al., Eukaryotic Cell 2005, 4(10):1646-53]. In F1000Prime, 21 Oct 2005; DOI: 10.3410/f.1028560.341170. F1000Prime.com/1028560#eval341170

Uncovers the novel phenomenon of regulated nuclear accumulation of the A. nidulans global nitrogen metabolism gene regulator AreA.

8. Hynes, M.J., and **Todd, R.B.** (2003) Detection of unpaired DNA at meiosis results in RNA-mediated silencing. *BioEssays.* **25**(2): 99-103.

Commentary on meiotic silencing by unpaired DNA in Neurospora crassa.

7. Todd, R.B., Greenhalgh, J.R., Hynes, M.J., and Andrianopoulos, A. (2003) TupA, the *Penicillium marneffei* Tup1p homologue, represses both yeast and spore development. *Molecular Microbiology.* **48**: 85-94.

Isolation & molecular characterization of the TUP1 homolog TupA, a key regulator of morphogenesis in P. maneffei. The first description of a regulator, which represses production of the pathogenic form of this fungus.

6. Small, A.J., **Todd, R.B.,** Zanker, M.C., Delimitrou, S., Hynes, M.J., and Davis, M.A. (2001) Functional analysis of TamA, a coactivator of nitrogen regulated gene expression, in *Aspergillus nidulans*. *Molecular Genetics and Genomics*. **265**: 636-646.

Nuclear localization and molecular characterization of the nitrogen coactivator TamA in A. nidulans.

5. Todd, R.B., Lockington, R.A., and Kelly, J.M. (2000) The *Aspergillus nidulans creC* gene involved in carbon catabolite repression encodes a WD40 repeat protein. *Molecular and General Genetics.* **263**: 561-570.

Isolation, sequence & molecular characterization of a novel conserved component of a regulatory deubiquitination system.

4. Todd, R.B., Andrianopoulos, A., Davis, M.A. and Hynes, M.J. (1998) The Zn(II)2Cys6 binuclear cluster of FacB, the *Aspergillus nidulans* activator of acetate utilisation genes, binds dissimilar DNA sequences. *The EMBO Journal.* **17**(7): 2042-2054.

Demonstrates that the facB gene encodes a DNA-binding protein; definition of the FacB DNA-binding site.

3. Todd, R.B., Kelly, J.M., Davis, M.A., and Hynes, M.J. (1997) Molecular characterization of mutants of the acetate regulatory gene *facB* of *Aspergillus nidulans*. *Fungal Genetics and Biology.* **22**(2): 92-102.

Describes the molecular basis of mutations in facB.

2. Todd, R.B., and Andrianopoulos, A. (1997) Evolution of a Fungal Regulatory Gene Family: The Zn(II)2Cys6 Binuclear Cluster DNA Binding Motif. *Fungal Genetics and Biology* (*Genomics Issue*). **21**(3): 388-405.

Phylogenetic analysis of putative Zn(II)2Cys6 (Gal4-type) transcription factors from S.

cerevisiae genome sequence to infer gene function. Top twelve most highly cited articles for *Fungal Genetics and Biology*.

1. Todd, R.B., Murphy, R.L., Martin, H.M., Sharp, J.A., Davis, M.A., Katz, M.E., and Hynes, M.J. (1997) The acetate regulatory gene *facB* of *Aspergillus nidulans* encodes a Zn(II)2Cys6 transcriptional activator. *Molecular and General Genetics.* **254**: 495-504.

Describes the sequence and molecular characterization of the transcription regulator of the glyoxylate bypass of the citric acid cycle (acetate utilization) genes FacB. Comparative sequence analysis of the facB genes of A. nidulans, A. niger and A. oryzae.

Invited Book Chapters

2. Todd, R.B.^c (201x) Regulation of fungal nitrogen metabolism. In: **The Mycota III: Biochemistry and molecular biology,** Third Edition. (Esser, K. (Ed.), Hoffmeister, D. (Assoc. Ed.). Springer, Heidelberg. KAES contribution: 15-089-B. Accepted for publication.

Invited and peer reviewed book chapter. The Mycota is the premier comprehensive treatise on fungi as experimental systems for basic and applied research.

1. Chang, P.-K., and **Todd, R.B.** (2004) Metabolic pathway regulation. In: **Handbook of Fungal Biotechnology**, Second Edition. [ISBN 0-8247-4018-1] (Arora, D.K. (Ed.), Bridge, P.D., and Bhatnagar, D. (Assoc. Eds.)) Mycology Series Vol. 20, pp. 25-38. Marcel Dekker Inc., New York.

Invited book chapter focusing on global and pathway-specific regulation of metabolic pathways in A. nidulans. Coauthored with P.K. Chang (United States Department of Agriculture, New Orleans, USA).

Abstracts

A. Oral Presentations selected from abstracts

9. Role of SUMOylation in the function of the transcription activator AreA. (April, 2006). Wong, K.H., **Todd, R.B.,** Hynes, M.J. and Davis, M.A. European Conference on Fungal Genetics 8, Vienna, Austria.

8. Nuclear Export of the GATA Transcription Factor AreA occurs via a Crm1-like Exportin. (February, 2005) **Todd, R.B.**, Fraser, J.A., Davis, M.A. and Hynes, M.J. Lorne Genome Conference, Phillip Island, Vic., Australia.

7. Nuclear export of the transcriptional activator AreA occurs via the CrmA exportin in *Aspergillus nidulans.* (July, 2004) **Todd, R.B.,** Fraser, J.A., Davis, M.A., and Hynes, M.J. Genetics Society of Australia 51st Annual Meeting, Melbourne, Vic., Australia.

6. The *Penicillium marneffei* TUP1 homologue represses both asexual development and yeast morphogenesis to allow vegetative filamentous growth. (July, 2001) **Todd, R.B.**, Hynes, M.J. and Andrianopoulos, A. Genetics Society of Australia 48th Annual Conference, Adelaide, SA, Australia.

5. TupA, the *Penicillium marneffei* TUP1 homologue, represses asexual development and yeast-like growth to allow vegetative filamentous growth. (March, 2001) **Todd, R.B.**, Hynes, M.J., and Andrianopoulos, A. 21st Fungal Genetics Conference, Asilomar, CA, USA.

4. A putative *het* locus linked to *het-c*. (May, 1996) **Todd, R.B.**, and Glass, N.L. Pacific North-West Neurospora Meeting, Fort Worden, WA, USA.

3. DNA binding of FacB, a transcriptional activator of acetate utilization genes of *Aspergillus nidulans.* (July, 1995) **Todd, R.B.**, Davis, M.A., and Hynes, M.J. Genetics Society of Australia 42nd Annual Conference, Canberra, ACT, Australia.

2. Analysis of the *facB* gene of *Aspergillus nidulans*. (March, 1993) **Todd, R.B.**, Murphy, R.L., Davis, M.A., and Hynes, M.J. *Aspergillus* workshop, 17th Fungal Genetics Conference, Asilomar, CA, USA.

1. Analysis of the *facB* gene of *Aspergillus nidulans*. (July, 1992) **Todd, R.B.**, Davis, M.A., and Hynes, M.J. Genetics Society of Australia 39th Annual Meeting, Brisbane, Queensland, Australia.

B. Contributed poster presentations (Presenter underlined)

76. D.J. Downes, K.H. Wong, Z. Miao, C. Parsania, and <u>R.B. Todd</u>. Dual DNA binding and co-activator modes of action for a Zn(II)2Cys6 transcription factor: a mechanism for promoter evolution? ASBMB Special Symposia Series: Evolution and Core Processes in Gene Regulation. June 25-28, 2015. Washington University in St Louis, St Louis MO.
75. <u>A.M. Brokesh</u>, C.C. Hunter, D.J. Downes, M.A. Davis, and R.B. Todd. A new mediator of transcriptional repression of a GATA transcription factor. The KSU Division of Biology 16th Annual Undergraduate Research Forum. April 23, 2015, Kansas State University, Manhattan, KS.

74. *<u>D.J. Downes</u>, P.A. Migeon, C.C. Hunter, and R.B. Todd. Duplication and redundancy of leucine, valine and isoleucine biosynthesis genes in *Aspergillus nidulans*. K-State Research Forum. March 31, 2015. Kansas State University, Manhattan KS.

* Poster prize.

73. D.J. Downes, Z. Miao, D. Djordjevic, V. Deshpande, A. Li, K. Tan, G.Y. Busot, J.W.K. Ho, R.B. Todd, <u>K.H. Wong</u>. Genome-wide transcriptional regulation and chromatin dynamics in response to nitrogen availability in *Aspergillus nidulans*. 28th Fungal Genetics Conference. March 17-22, 2015. Asilomar Conference Center, Pacific Grove CA.

72. <u>C.C. Hunter</u>, M.E. Katz, and R.B. Todd. Regulation of Nuclear Import of the *Aspergillus nidulans* GATA Transcription Factor AreA. 28th Fungal Genetics Conference. March 17-22, 2015. Asilomar Conference Center, Pacific Grove CA.

71. <u>D.J. Downes</u>, K.H. Wong, R.B. Todd. Pan-genomic analysis of TamA in *Aspergillus nidulans*: the regulatory network of a dual function Zn(II)2Cys6 transcription factor. 28th Fungal Genetics Conference. March 17-22, 2015. Asilomar Conference Center, Pacific Grove CA.

70. <u>D.J. Downes</u>, K.H. Wong, R.B. Todd. Pan-genomic analysis of TamA in *Aspergillus nidulans*: the regulatory network of a dual function Zn(II)2Cys6 transcription factor. 28th Fungal Genetics Conference. March 17-22, 2015. Asilomar Conference Center, Pacific Grove CA.

69. <u>C.C. Hunter</u>, M.E. Katz, and R.B. Todd. Regulation of Nuclear Import of the *Aspergillus nidulans* GATA Transcription Factor AreA. 12th International Aspergillus Meeting (Asperfest 12). March 16-17, 2015. Asilomar Conference Center, Pacific Grove CA.

68. *<u>D.J. Downes</u>, K.H. Wong, R.B. Todd. Pan-genomic analysis of TamA in *Aspergillus nidulans*: the regulatory network of a dual function Zn(II)2Cys6 transcription factor. 12th International Aspergillus Meeting (Asperfest 12). March 16-17, 2015. Asilomar Conference Center, Pacific Grove CA.

*Novozymes Student Poster prize.

67. <u>D.J. Downes</u>, P.A. Migeon, C.C. Hunter, and R.B. Todd. Duplication and redundancy of leucine, valine and isoleucine biosynthesis genes in *Aspergillus nidulans*. 12th International Aspergillus Meeting (Asperfest 12). March 16-17, 2015. Asilomar Conference Center, Pacific Grove CA.

66. <u>A.M. Brokesh</u>, C.C. Hunter, D.J. Downes, M.A. Davis, and R.B. Todd⁻ A new mediator of transcriptional repression of a GATA transcription factor. January 17-18, 2015. The 13th Annual K-INBRE Symposium, Capitol Plaza Hotel, Topeka, KS.

65. <u>B.T. Pfannenstiel</u>, D.J. Downes, and **R.B. Todd.** A screen of 98 protein kinase mutants for effects on fungal nitrogen nutrient utilization. College of Agriculture Undergraduate Research Showcase. April 25, 2014 Kansas State University, Manhattan, KS.

64. <u>D.J. Downes</u>, Wong, K.H., and **R.B. Todd.** Dual DNA binding and coactivator functions of *Aspergillus nidulans* TamA, a Zn(II)2Cys6 transcription factor. 12th European Conference on Fungal Genetics (ECFG12). March 23-27, 2014, Hotel Silken-Al Andalus, Sevilla, Spain.

63. <u>D.J. Downes</u>, Wong, K.H., and **R.B. Todd.** Dual DNA binding and coactivator functions of *Aspergillus nidulans* TamA, a Zn(II)2Cys6 transcription factor. 11th International Aspergillus Meeting (Asperfest11). March 22-23, 2014, Hotel Silken-Al Andalus, Sevilla, Spain.

62. <u>B.T. Pfannenstiel</u>, D.J. Downes, C.C. Hunter, and **R.B. Todd.** Genetic analysis of the nuclear export sequence of a GATA transcription factor and its interaction with a nuclear exportin. K-INBRE Symposium, Downtown Kansas City Marriott Muehlebach Tower, Kansas City, MO, January 18-19, 2014.

61. *<u>B.T. Pfannenstiel</u>, D.J. Downes, and **R.B. Todd.** Analysis of mutants selected for loss of function of the nuclear export sequence of a GATA transcription factor. College of Agriculture Undergraduate Research Showcase, Kansas State University, Manhattan, KS. April 26, 2013.

*Gamma Sigma Delta Best Poster Award.

60. <u>B.T. Pfannenstiel</u>, D.J. Downes, and **R.B. Todd.** Genetic analysis of the interaction between the nuclear export sequence of a GATA transcription factor and a nuclear exportin. KSU Division of Biology 14th Annual Undergraduate Research Forum. Apr. 11, 2013, Kansas State University, Manhattan, KS.

59. <u>C.C. Hunter</u>, K.S. Siebert, D.J. Downes, K.H Wong, S. Lewis, J.A. Fraser, D.F. Clarke, M.J. Hynes, M.A. Davis and **R.B. Todd**. Redundant Nuclear Localization Signals Mediate Nuclear Import of the *Aspergillus nidulans* Transcription Activator of Nitrogen Metabolic Genes AreA. K-State Research Forum. March 27, 2013. Kansas State University, Manhattan KS.

58. *<u>B.T. Pfannenstiel</u>, D.J. Downes and **R.B. Todd**. Genetic analysis of the interaction between the nuclear export sequence of a GATA transcription factor and a nuclear exportin. K-State Research Forum. March 27, 2013. Kansas State University, Manhattan KS.

*Undergraduate Student Poster Presentation – 3rd place.

57. <u>C.C. Hunter</u>, K.S. Siebert, D.J. Downes, K.H. Wong, S. Lewis, J.A. Fraser, D.F. Clarke, M.J. Hynes, M.A. Davis and **R.B. Todd**. Redundant Nuclear Localization Signals Mediate Nuclear Import of the *Aspergillus nidulans* Transcription Activator of Nitrogen Metabolic Genes AreA. 27th Fungal Genetics Conference. March 12-17, 2013. Asilomar Conference Center, Pacific Grove CA.

56. *<u>D.J. Downes</u>, B.T. Pfannenstiel, C.C. Hunter, K.S. Siebert, D.F. Clarke, M.A. Davis and **R.B. Todd**. Histidine 704 of the *Aspergillus nidulans* GATA factor AreA is required for nuclear export. 27th Fungal Genetics Conference. March 12-17, 2013. Asilomar Conference Center, Pacific Grove CA.

*Genetics Society of America Best Student Poster Award – Functional and comparative genomics and gene regulation category.

55. <u>C.C. Hunter</u>, K.S. Siebert, D.J. Downes, K.H. Wong, S. Lewis, J.A. Fraser, D.F. Clarke, M.J. Hynes, M.A. Davis and **R.B. Todd**. Redundant Nuclear Localization Signals Mediate Nuclear Import of the *Aspergillus nidulans* Transcription Activator of Nitrogen Metabolic Genes AreA. 10th International Aspergillus Meeting – Asperfest 10. March 11-12, 2013. Asilomar Conference Center, Pacific Grove CA.

54. *<u>D.J. Downes</u>, B.T. Pfannenstiel, C.C. Hunter, K.S. Siebert, D.F. Clarke, M.A. Davis and **R.B. Todd**. Histidine 704 of the *Aspergillus nidulans* GATA factor AreA is required for nuclear export. 10th International Aspergillus Meeting – Asperfest 10. March 11-12, 2013. Asilomar Conference Center, Pacific Grove CA.

*Novozymes Student Poster prize.

53. B.T. Pfannenstiel, <u>D.J. Downes</u> and **R.B. Todd**. Genetic analysis of the interaction between the nuclear export sequence of a GATA transcription factor and a nuclear exportin. The 2013 Midwestern Universities Filamentous Fungal Symposium. February 14, 2013. University of Missouri-Kansas City, Kansas City, MO.

52. <u>D.J. Downes</u>, K.S. Siebert and **R.B. Todd**. A single histidine residue in the nuclear export sequence of the GATA factor AreA is required for nuclear export. The 2013 Midwestern Universities Filamentous Fungal Symposium. February 14, 2013. University of Missouri-Kansas City, Kansas City, MO.

51. <u>C.C. Hunter</u>, K.S. Siebert, D.J. Downes, K.H. Wong, S. Lewis, J.A. Fraser, D.F. Clarke, M.J. Hynes, M.A. Davis and **R.B. Todd**. Redundant nuclear localization signals mediate nuclear import of the *Aspergillus nidulans* transcription activator of nitrogen metabolic genes AreA. The 2013 Midwestern Universities Filamentous Fungal Symposium. February 14, 2013. University of Missouri-Kansas City, Kansas City, MO.

50. G.Y. Busot, Y. Hiromasa, J.M. Tomich and <u>**R.B. Todd**</u>. A proteomics approach to identify interactors of the *Aspergillus nidulans* nitrogen transcription corepressor NmrA. The 2013 Midwestern Universities Filamentous Fungal Symposium. February 14, 2013. University of Missouri-Kansas City, Kansas City, MO.

49. <u>B.T. Pfannenstiel</u>[†], D.J.Downes and **R.B. Todd.** Genetic analysis of the interaction between the nuclear export sequence of a GATA factor and a nuclear exportin. K-INBRE Symposium, Manhattan, KS, January 18-20, 2013.

† Award of Excellence.

48. <u>C.C. Hunter</u>**, K.S. Siebert, D.J. Downes, K.H. Wong, S. Lewis, J.A. Fraser, D.F. Clarke, M.J. Hynes, M.A. Davis and <u>**R.B. Todd.**</u> Redundant nuclear localization signals mediate nuclear import of the *Aspergillus nidulans* transcription activator of nitrogen metabolic genes AreA. Gordon Research Conference on Cellular and Molecular Fungal Biology, Holderness School, Holderness, NH. June 17-22, 2012.

** Eukaryotic Cell Outstanding Young Investigator Award in recognition of a stellar research presentation.

47. <u>D.J. Downes</u>, K.S. Siebert, and **R.B. Todd**. A single histidine residue in the nuclear export sequence of the GATA transcription factor AreA is required for nuclear export. Student Research Presentations for the Kansas Board of Regents, K-State Alumni Center, KSU, Manhattan KS. April 6th 2012.

46. C.C. Hunter, K.S. Siebert, D.J. Downes, K.H. Wong, S. Lewis, J.A. Fraser, M.J. Hynes, M.A. Davis and <u>**R.B. Todd.**</u> Redundant nuclear localization signals mediate nuclear import of the *Aspergillus nidulans* transcription activator of nitrogen metabolic genes AreA. Asperfest 9: The 9th International Aspergillus Meeting). March 29-30, 2012, Max Planck Institute, Marburg, Germany.

45. C.C. Hunter, K.S. Siebert, D.J. Downes, K.H. Wong, S. Lewis, J.A. Fraser, M.J. Hynes, M.A. Davis and **R.B. Todd.** Redundant nuclear localization signals mediate

nuclear import of the *Aspergillus nidulans* transcription activator of nitrogen metabolic genes AreA. 11th European Conference on Fungal Genetics (ECFG11). March 30-April 2, 2012, Phillips Universität, Marburg, Germany.

44. <u>C.C. Hunter</u>, K.S. Siebert and **R.B. Todd**. The GATA transcription factor AreA has multiple nuclear localization sequences sufficient for nuclear accumulation. K-State Research Forum, March 8, 2012. Kansas State University, Manhattan KS.

43. <u>D.J. Downes</u>*, K.S. Siebert, and **R.B. Todd**. A single histidine residue in the nuclear export sequence of the GATA transcription factor AreA is required for nuclear export. K-State Research Forum, March 8, 2012. Kansas State University, Manhattan KS.

* Poster prize, selected for presentation to Kansas Board of Regents.

42. <u>C.C. Hunter^{2,3}</u>, K.S. Siebert⁴ and **R.B. Todd**. The GATA transcription factor AreA has multiple nuclear localization sequences sufficient for nuclear accumulation. The 10th Annual K-INBRE Symposium. Jan 14-15, 2012, Westin Crown Center Hotel, Kansas City, MO.

41. <u>D.J. Downes</u>, K.S. Siebert, and **R.B. Todd**. A single histidine residue in the nuclear export sequence of the GATA transcription factor AreA is required for nuclear export. The 10th Annual K-INBRE Symposium. Jan 14-15, 2012, Westin Crown Center Hotel, Kansas City, MO.

40. D.J. Downes, K.S. Siebert, and **R.B. Todd**. A single histidine residue in the nuclear export sequence of the GATA transcription factor AreA is required for nuclear export. Kansas: Climate and Energy Central. Annual Kansas NSF EPSCoR Statewide Conference. Jan 12-13, 2012. Wichita Marriott Hotel, Wichita, Kansas.

39. <u>C.C. Hunter</u>, K.S. Siebert and **R.B. Todd**. Identification of nuclear localization sequences in the GATA transcription factor AreA. KSU Division of Biology Undergraduate Research Scholars' Forum. Apr. 28, 2011, Kansas State University, Manhattan, KS.

38. <u>D.J.</u> <u>Downes</u>, B.L. Taig, S. Lewis, **R.B. Todd**, M.A. Davis. The Zn(II)2Cys2 binuclear cluster of TamA is required for activation of *gdhA* expression in *Aspergillus nidulans*. 26th Fungal Genetics Conference at Asilomar, CA. Mar 15-20, 2011.

37. <u>**R.B.**</u> <u>**Todd**</u>, C.C. Hunter, K.S. Siebert, K.H. Wong, S. Lewis, D.J. Downes, J.A. Fraser, M.J. Hynes and M.A. Davis. Functional characterization of nuclear localization signals in the *Aspergillus nidulans* transcription activator of nitrogen metabolic genes AreA. 26th Fungal Genetics Conference at Asilomar, CA. Mar 15-20, 2011.

36. <u>**R.B. Todd**</u>, C.C. Hunter, K.S. Siebert, K.H. Wong, S. Lewis, D.J. Downes, J.A. Fraser, M.J. Hynes and M.A. Davis. Functional characterization of nuclear localization signals in the *Aspergillus nidulans* transcription activator of nitrogen metabolic genes AreA. Asperfest8: The eighth International Aspergillus meeting. Mar 14-15, 2011, Asilomar Conference Center, Pacific Grove CA.

35. <u>C.C. Hunter</u>, K.S. Siebert and **R.B. Todd**. Identification of nuclear localization sequences in the GATA transcription factor AreA. Midwest Universities Filamentous Fungal Symposium, Feb 3, 2011, University of Missouri, Kansas City, Kansas City, MO.

34. <u>D.J. Downes</u>, **R.B. Todd** and M.A. Davis. The DNA binding motifs of AreA, LeuB and TamA are required for activation of *gdhA* expression in *Aspergillus nidulans*. Midwest Universities Filamentous Fungal Symposium, Feb 3, 2011, University of Missouri, Kansas City, Kansas City, MO.

33. <u>C.C. Hunter</u>, K.S. Siebert and **R.B. Todd**. Identification of nuclear localization sequences in the GATA transcription factor AreA. The 9th annual K-INBRE Symposium, Jan 15-16, 2011, InterContinental Hotel, Kansas City, MO.

32. <u>D.J. Downes</u>, **R.B. Todd** and M.A. Davis. The DNA binding motifs of AreA, LeuB and TamA are required for activation of *gdhA* expression in *Aspergillus nidulans*. The 9th annual K-INBRE Symposium, Jan 15-16, 2011, InterContinental Hotel, Kansas City, MO.

31. Wong, KH, Davis, MA, Lewis, S, and <u>**Todd, RB**</u>. (December, 2009) Deletion of the *Aspergillus nidulans sumO* gene indirectly prevents AreA nuclear accumulation in response to nitrogen starvation. Xth International Fungal Biology Conference and VIIIth Mexican Congress of Molecular and Cellular Biology of Fungi joint meeting: Frontiers in Fungal Biology, Ensenada, B.C., Mexico.

30. K.H. Wong, M.A. Davis, M.J. Hynes and **R.B. Todd**. (March, 2009) Deletion of the *Aspergillus nidulans* nitrogen regulatory gene *areB* reveals pleiotropic phenotypes. The 6th International Aspergillus Meeting. Asilomar, CA USA.

29. <u>de Vries, R.P.</u>, Visser, L., Battaglia, E., Gruben, B., Wösten, H.A.B., <u>**Todd, R.B.**</u> (April, 2008) Prevalence of transcriptional regulators across the fungal kingdom. 9th European Conference on Fungal Genetics. Edinburgh, Scotland.

28. Wong, K.H., **Todd, R.B.,** Hynes, M.J., and Davis, M.A. (March, 2007) NmrA levels regulate the activity of AreA, the major nitrogen regulator, in *Aspergillus nidulans*. 24th Fungal Genetics Conference, Asilomar, CA, USA.

27. <u>Davis, M.A.</u>, <u>**Todd, R.B.**</u>, Hynes, M.J., and Wong, K.H. (November, 2006) Factors affecting AreA function in *Aspergillus nidulans*. Nitrogen Metabolism in Ascomycetes in the Post-genomic era (Tequesquitengo San Jose Vista Hermosa, Morelos, Mexico.

26. <u>Wong, K.H.</u>, **Todd, R.B.**, Davis, M.A., and Hynes, M.J. (March, 2005) Posttranslational regulation of AreA, the global transcriptional activator of nitrogen metabolism in *Aspergillus nidulans* 23rd Fungal Genetics Conference, Asilomar, CA, USA.

25. <u>Todd, R.B.</u>, Fraser, J.A., Davis, M.A and Hynes, M.J. (April, 2004) The role of the CrmA exportin in nuclear export of the transcriptional activator AreA in *Aspergillus nidulans*. 1st Aspergillus Meeting, Copenhagen, Denmark.

24. <u>Todd, R.B.</u>, Fraser, J.A., Davis, M.A and Hynes, M.J. (April, 2004) The role of the CrmA exportin in nuclear export of the transcriptional activator AreA in *Aspergillus nidulans*. 7th European Conference on Fungal Genetics, Copenhagen, Denmark.

23. <u>Katz, M.E.</u>, Bernardo, S.M.H, Gray, K.-A., **Todd, R.B.**, and Cheetham, B.F. (April, 2004) A new role for hexokinases in filamentous fungi. 7th European Conference on Fungal Genetics, Copenhagen, Denmark.

22. <u>Todd, R.B.</u>, Fraser, J.A., Hynes, M.J., and Davis, M.A. (July, 2003). Nuclear hyperaccumulation of the *Aspergillus nidulans* transcriptional activator AreA occurs under nitrogen starvation but not nitrogen sufficiency or carbon starvation. XIX International Congress of Genetics, Melbourne, Victoria, Australia.

21. <u>Todd, R.B.</u>, Fraser, J.A., Hynes, M.J., and Davis, M.A. (March, 2003) Nuclear localization of *Aspergillus nidulans* AreA is regulated by nitrogen and carbon starvation. 22nd Fungal Genetics Conference, Asilomar, CA, USA.

20. <u>Todd, R.B.</u>, Hynes, M.J., and Andrianopoulos, A. (February, 2003) The TupA regulator of *Penicillium marneffei* represses asexual development and yeast-like growth to allow vegetative filamentous growth. 24th Annual Conference on the Organisation and Expression of the Genome, Lorne, Victoria, Australia.

19. <u>**Todd, R.B.,**</u> Polotnianka, R., Monahan, B.J., Fraser, J.A., Davis, M.A., and Hynes, M.J. (March, 2002) Nitrogen starvation and nitrogen sufficiency elicit different AreA functions in *Aspergillus nidulans.* Sixth European Fungal Genetics Conference. Palazzo di Congresso, Pisa, Italy.

18. <u>Todd, R.B.</u>, Fraser, J.A., Davis, M.A., and Hynes, M.J. (March, 2001) Subcellular localisation of *Aspergillus nidulans* AreA. Second Nitrogen metabolism in Ascomycetes Meeting. Hotel Hacienca Vista Hermosa, Tequesquitengo San Jose Vista Hermosa, Morelos, Mexico.

17. Small, A.J., **Todd, R.B.,** Hynes, M.J., and <u>Davis, M.A.</u> (March, 2001) The *tamA* gene of *Aspergillus nidulans*. Second Nitrogen metabolism in Ascomycetes Meeting. Hotel Hacienca Vista Hermosa, Tequesquitengo San Jose Vista Hermosa, Morelos, Mexico.

16. <u>**Todd, R.B.,**</u> Hynes, M.J., and Andrianopoulos, A. (March, 2001) TupA, the *Penicillium marneffei* TUP1 homologue, represses asexual development and yeast-like growth to allow vegetative filamentous growth. 21st Fungal Genetics Conference, Asilomar, CA, USA.

15. <u>**Todd, R.B.,**</u> Hynes, M.J., and Andrianopoulos, A. (February, 2001) TupA, the *Penicillium marneffei* TUP1 homologue, represses asexual development and yeast-like growth to allow vegetative filamentous growth. Organisation and Expression of the Genome Conference, Lorne, Victoria, Australia.

14. <u>Davis, M.A.</u>, **Todd, R.B.**, Margelis, S., Zanker, M., and Hynes, M.J. (February, 2000) Nitrogen regulation in *Aspergillus nidulans*. Organisation and Expression of the Genome Conference, Lorne, Victoria, Australia.

13. <u>**Todd, R.B.,**</u> Lockington, R.A., and Kelly, J.M. (February, 2000) The *creC* carbon catabolite repression gene of *Aspergillus nidulans* encodes a protein containing WD40 repeats. Organisation and Expression of the Genome Conference, Lorne, Victoria, Australia.

12. <u>**Todd, R.B.,**</u> Lockington, R.A., and Kelly, J.M. (March, 1999) The *creC* carbon catabolite repression gene of *Aspergillus nidulans* encodes a protein containing WD40 repeats. 20th Fungal Genetics Conference, Asilomar, CA, USA.

11. Evolution of a Fungal Regulatory Gene Family: The Zn(II)2Cys6 Binuclear Cluster DNA Binding Motif. (March, 1998) <u>Andrianoupoulos</u>, <u>A.</u>, and **Todd**, **R.B.** International Symposium on Fungal Genomics, University of Georgia, Athens GA, USA.

10. <u>**Todd, R.B.,**</u> Saupe, S.J., and Glass, N.L. (March, 1997) Analysis of *het-c* heterokaryon incompatibility in *Neurospora crassa*. 19th Fungal Genetics Conference, Asilomar, CA, USA.

9. <u>**Todd, R.B.</u>**, Davis, M.A., and Hynes, M.J. (March, 1995) DNA binding of FacB, a transcriptional activator of acetate utilization genes of *Aspergillus nidulans*. 18th Fungal Genetics Conference, Asilomar, CA, USA.</u>

8. <u>Todd, R.B.</u>[§], Davis, M.A., and Hynes, M.J. (February, 1995) DNA binding of an *Aspergillus* transcriptional activator. Organisation and Expression of the Genome Conference, Lorne, Victoria, Australia.

[§]Gordon and Breach/Harwood Academic Publishers Student Poster Prize.

7. <u>Todd, R.B.</u>, Davis, M.A., and Hynes, M.J. (July, 1994) Analysis of the *facB* gene of *Aspergillus nidulans*. Genetics Society of Australia 41st Annual Meeting, Armidale, NSW, Australia.

6. <u>Todd, R.B.</u>, Murphy, R.L., Martin, H.M., Katz, M.E., Davis, M.A., and Hynes, M.J. (July, 1993) Analysis of an *Aspergillus* transcription *fac*-tor. Australian Society for Biochemistry and Molecular Biology 37th Annual Conference, Adelaide, SA, Australia.

5. <u>Murphy, R.L.</u>, Martin, H.M., **Todd, R.B.**, Davis, M.A., and Hynes, M.J. (July, 1993) An important *fac*-tor in *amdS* gene regulation. Australian Society for Biochemistry and Molecular Biology 37th Annual Conference, Adelaide, SA, Australia.

4. <u>Todd, R.B.</u>, Murphy, R.L., Martin, H.M., Katz, M.E., Davis, M.A., and Hynes, M.J. (July, 1993) Analysis of an *Aspergillus* transcription *fac*-tor. Genetics Society of Australia 40th Annual Meeting, Adelaide, SA, Australia.

3. <u>Murphy, R.L.</u>, Martin, H.M., **Todd, R.B.**, Davis, M.A., and Hynes, M.J. (July, 1993) An important *fac*-tor in *amdS* gene regulation. Genetics Society of Australia 40th Annual Meeting, Adelaide, SA, Australia.

2. <u>Todd, R.B.</u>, Murphy, R.L., Martin, H.M., Kelly, J.M., Katz, M.E., Davis, M.A., and Hynes, M.J. (March, 1993) Analysis of the *facB* gene of *Aspergillus nidulans*. 17th Fungal Genetics Conference, Asilomar, CA, USA.

1. <u>Murphy, R.L.</u>, **Todd, R.B.**, Davis, M.A., and Hynes, M.J. (February, 1993) The *facs* of life for *Aspergillus*. Organisation and Expression of the Genome Conference, Lorne, Victoria, Australia.

INVITED SEMINARS AND INVITED TALKS AT CONFERENCES

27. 12th International Aspergillus Meeting, Asilomar Conference Center, Pacific Grove CA, USA. (March 2015).

26. Department of Plant Pathology, Kansas State University, USA (October 2014).

25. Seminars in Ecology and Evolutionary Biology, Kansas State University, USA (April 2013).

24. Regulation and Comparative Genomics of Carbon and Nitrogen Metabolism. 27th Fungal Genetics Conference, Asilomar Conference Center, Pacific Grove CA, USA. (March 2013).

23. Symposium on the regulation of gene expression and metabolism, Melbourne, Australia. (December 2012).

22. Plant Biology Division – Plant Seminar Series, The Samuel Roberts Noble Foundation, Ardmore, OK, USA. (November 2012).

21. Molecular, Cellular and Developmental Biology Research Forum, Kansas State University, Manhattan KS, USA (September 2012).

20. NCCC207 Fungal Plant Interactions meeting. Asilomar CA, USA (March 2011).

19. Midwest Universities Filamentous Fungal Symposium, University of Missouri-Kansas City, Kansas City, MO, USA (February, 2011).

18. K-INBRE Transitions Oversight Meeting. University of Kansas-Lawrence, Lawrence KS, USA (August, 2010).

17. Plant and Soil Sciences, University of Delaware, USA (April, 2010).

16. Department of Biochemistry, Kansas State University, USA (March 2010).

15. Nitrogen Regulatory Networks, 25th Fungal Genetics Conference, Asilomar, USA (March 2009).

14. Department of Genetics, University of Melbourne, Parkville, Australia (August 2008).

13. Department of Microbiology, University of Utrecht, Utrecht, The Netherlands (May 2008).

12. Departmento de Genetica, Faculdad de Biologica, Universidad de Sevilla, Sevilla, Spain (April 2008).

11. Department of Plant Pathology, Kansas State University, USA (January 2008).

10. Institute of Biology, Leiden University, The Netherlands (July 2007).

9. Department of Biological Sciences, Flinders University, SA, Australia (October 2006).

8. Temasek Life Sciences Laboratory, Singapore (April 2006).

7. Joint Genetics Group Meeting, The Walter and Eliza Hall Institute, Melbourne, Australia (April, 2005).

6. Department of Biological Sciences, Monash University, Clayton, Australia (July, 2004).

5. Molecular Microbiology Section, Laboratory of Clinical Investigation, National Institute of Allergy and Infectious Diseases, National Institutes of Health, Bethesda, MD, USA (March, 2002).

4. Molecular and Cell Biology, Institute of Medical Sciences, Aberdeen, UK (August, 2000).

3. Department of Plant Sciences, University of Oxford, Oxford, UK (August, 2000).

2. Department of Genetics, University of Melbourne, Parkville, Vic., Australia (May, 1999).

1. Department of Genetics, The University of Adelaide, Adelaide, SA, Australia (January, 1996).

INVITED TALKS PRESENTED BY RESEARCH STUDENTS FROM MY LAB

6. <u>C.C. Hunter</u>, and R.B. Todd. Multiple nuclear localization signals mediate nuclear localization of the GATA transcription factor AreA. North Central Coordinating Committee NCCC307 Biochemistry and Genetics of Fungal-Plant Interactions Workshop. Pacific Grove CA. March 2015.

<u>D.J. Downes</u>, Three-minute thesis presentation. Selected by the KSU Vice-President for Research to present to the KSU Foundation Board of Trustees. September 19, 2014.
 <u>*D.J. Downes</u>, and R.B. Todd. Transcriptional regulation of NADP-GDH in *Aspergillus nidulans:* a key step in the nitrogen assimilation pathway. Mycological Society of America 2014 Annual Meeting. June 8-12. The Kellogg Center, Michigan State University, East Lansing, MI.

* *Invited speaker, Molecular Mechanisms of Adaptation to Host and Environment.* **3.** *<u>C.C. Hunter</u>, and R.B. Todd. Multiple nuclear localization signals mediate nuclear localization of the GATA transcription factor AreA. K-State Research Forum. Kansas State University, Manhattan KS. (March, 2014).

* Best Graduate Student Talk – 3rd place Biological Sciences: \$175 **2.** *<u>D.J. Downes</u>, B.L. Taig, S. Lewis, M.A. Davis and R.B. Todd. Determining the site of action of a fungal transcription factor. K-State Research Forum. Kansas State University, Manhattan KS. (March, 2013).

* Best Graduate Student Talk – 1st place Biological Sciences: \$500

1. <u>D.J. Downes</u>, M.A. Davis, S. Kreutzberger, K.H. Wong, B.L. Taig, M.J. Hynes, and R.B. Todd. Two important control mechanisms of NADP-Glutamate Dehydrogenase transcription in *Aspergillus nidulans*. North Central Coordinating Committee NCCC207 Biochemistry and Genetics of Fungal-Plant Interactions Meeting. Asilomar Conference Center, Pacific Grove CA, USA. March 2013.

COMPETITIVE RESEARCH FUNDING

12. Johnson Center for Basic Cancer Research: Innovative Research Award PI/PD: **R.B. Todd**.

Collaborators: none. Title: "Identification of a novel regulator of AreA nuclear export" Duration: 04/2015-09/2015. Funding level: **\$4,180**

11. Johnson Center for Basic Cancer Research: Graduate Student Summer Stipend

PI/PD: **R.B. Todd**. Collaborators: none. Title: "Regulation of the GATA transcription factor AreA in response to nitrogen sufficiency" (Downes). Duration: 6/2014-8/2014. Funding level: **\$6,012**

10. Johnson Center for Basic Cancer Research: Innovative Research Award PI/PD: **R.B. Todd**.

Collaborators: none. Title: "Dual function transcription factors: how prevalent is co-activator function for DNAbinding transcription factors?" Duration: 04/2014-09/2014. Funding level: **\$9,000**

9. Johnson Center for Basic Cancer Research: Graduate Student Summer Stipend PI/PD: **R.B. Todd**.

Collaborators: none. Title: "Regulation of the GATA transcription factor AreA in response to nitrogen sufficiency" (Downes). Duration: 6/2013-8/2013. Funding level: **\$5,976**

8. Johnson Center for Basic Cancer Research: Graduate Student Summer Stipend PI/PD: R.B. Todd.

Collaborators: none. Title: "Regulation of the GATA transcription factor AreA in response to nitrogen sufficiency" (Downes). Duration: 6/2012-8/2012. Funding level: **\$5,000**

7. Johnson Center for Basic Cancer Research: Innovative Research Award PI/PD: R.B. Todd.

Collaborators: none. Title: "The effect of nutrient stress on cell cycle progression in the model eukaryote *Aspergillus nidulans*" Duration: 11/2011-10/2012. Funding level: **\$24,193**.

6. Kansas NSF EPSCoR First Award.

PI/PD: R.B. Todd

Collaborators: none. Title: "The mechanism of regulated nuclear export of the *Aspergillus nidulans* nitrogen transcription factor AreA" Duration: 07/01/2010-09/30/2011 Funding level: **\$132,546**.

5. K-INBRE – Kansas IDeA Network of Biomedical Research Excellence (NIH) Major Starter Grant.

PI/PD: **R.B. Todd** Collaborators: none. Title: "Does the *Aspergillus nidulans* transcriptional repressor NmrA act as a regulatory enzyme?" Duration: 06/01/2010-12/31/2012 Funding level: **\$97,500**.

4. K-INBRE – Kansas IDeA Network of Biomedical Research Excellence (NIH) Major Starter Grant (Mentor).

PI/PD: **R.B. Todd** Mentor: B. Valent Collaborators: none. Title: "The mechanism of action of the transcriptional repressor NmrA (Mentor)" Duration: 05/01/2011-04/30/2012 Funding level: **\$7,313**. (Todd: \$0)

3. KSU Integrated Genomics Facility Competitive Seed Grant Proposal. PI/PD: R.B. Todd

Collaborators: none

Title: "Transcriptome sequencing to measure gene expression differences in response to nitrogen nutrient availability in *Aspergillus nidulans*". Duration: 06/2010-05/2011 Funding level: **\$9,480**

2. Australian Research Council (ARC) Discovery Project

Chief Investigators: A/Prof MA Davis; Dr RB Todd Title: Regulation of nuclear localisation of the AreA transcription factor in *Aspergillus nidulans* Duration: 2005 – 2007 Funding level: **\$AU 223,706**

1. Early Career Researcher (ECR) Grant, University of Melbourne

Chief Investigator: Dr RB Todd Title: Characterisation of effects of Rapamycin on the transcription factor AreA Duration: 2004 Funding level: **\$AU 37,220**

COMPETITIVE TRAVEL FUNDING

1. Johnson Center for Basic Cancer Research: Graduate Student Travel Award (for Downes and Hunter).

Fall 2012.

Funding level: **\$1,200**

COMPETITIVE STUDENT MENTORING FUNDING

8. K-INBRE Undergraduate Research Scholar Award

A.M. Brokesh (student) and **R.B. Todd** (mentor) Duration: 08/01/2015-05/31/2016 Mentor funding level: **\$500**.

7. Johnson Center for Basic Cancer Research: Undergraduate Cancer Research Award.

A.M. Brokesh (student) and **R.B. Todd** (mentor). Duration: 2014-2015 academic year. Mentor funding level: **\$1,000**

6. K-INBRE Undergraduate Research Scholar Award

A.M. Brokesh (student) and **R.B. Todd** (mentor) Duration: 08/01/2014-05/31/2015 Mentor funding level: \$500.

5. K-INBRE STAR Trainee Award

B.T. Pfannenstiel (student) and R.B. Todd (mentor). Duration: 2013-2014 academic year. Mentor funding level: \$2,500

4. Microscopy Society of America Undergraduate Research Award

B.T. Pfannenstiel (student) and R.B. Todd (mentor). Duration: 4/2013-3/2014 academic year. Mentor funding level: \$500

3. Johnson Center for Basic Cancer Research: Undergraduate Cancer Research Award.

B.T. Pfannenstiel (student) and R.B. Todd (mentor). Duration: 2012-2013 academic year. Mentor funding level: \$1,000

2. K-INBRE Summer/Semester Scholar

B.T. Pfannenstiel (student) and R.B. Todd (mentor). Duration: 2012-2013 academic year. Mentor funding level: \$500

1. K-INBRE ARRA Scholar

C.C. Hunter (student) and R.B. Todd (mentor). Duration: 2010-2011 academic year. Mentor funding level: \$1,500

COMPETITIVE TEACHING AND TEACHING INFRASTRUCTURE FUNDING

4. KSU College of Agriculture Student Fee Allocation FY15 Fund: Support for: PLPTH 500 Principles of Plant Pathology; PLPTH 585 Crop Diseases: and PLPTH 611 Agricultural Biotechnology Lab. To: J. O'Mara, C.R. Little, R.B. Todd. Funding level: **\$48,000**.

3. KSU College of Agriculture Student Fee Allocation FY13 Fund: Support for PLPTH 611. R.B. Todd

Funding level: \$2,343.

2. KSU College of Agriculture Student Fee Allocation FY11 Fund 2010:

Safety shower installation in teaching lab Throckmorton 1504. R.B. Todd Funding level: \$15,027.

1. KSU College of Agriculture Student Fee Allocation FY11 Fund 2010: Support for PLPTH 611. R.B. Todd Funding level: \$4,935.

COMPETITIVE EQUIPMENT FUNDING

1. Johnson Center for Basic Cancer Research: Faculty Equipment Award 2011. PI: R.B. Todd.

Co-PIs A.E. Whitfield, D. Rotenberg.

Odyssey Fc. Funding level: \$9,000 Johnson Center; \$9,000 KSU Plant Biotechnology Center matching funds.

SUPERVISION

Key: KSU= Kansas State University, UM = University of Melbourne.

Research Student Mentoring and Supervision:

- <u>PhD Advisor/Major Professor</u> (KSU) 2 advisees:
 - Damien Downes (Genetics), Completed. Commenced 2010, preliminary exams completed 2013, defended April 13, 2015.
 Current position: Postdoctoral Research Assistant, Disease Gene Regulation, Weatherall Institute of Molecular Medicine, University of Oxford, UK.
 - Cameron Hunter (Genetics), In progress. Commenced 2011.
- <u>PLPTH 599 Undergraduate Research in Plant Pathology</u> (KSU) 3 students:
 - Cameron Hunter: Fall 2010 (0 Cr), Spring 2011 (2 Cr). Current Position: PhD student, Todd lab, Genetics Program, Kansas State University.
 - Brandon Pfannenstiel: Spring 2012 (0 Cr), Fall 2012 (3 Cr), Spring 2013 (0 Cr), Fall 2013 (0 Cr), Spring 2014 (0 Cr). Current position: PhD student, Nancy Keller lab, Genetics Program, University of Wisconsin.
 - Anna Brokesh: Current. Spring 2014 (0 Cr), Summer 2014 (0 Cr), Fall 2014 (2 Cr), Summer 2015 (0 Cr), Fall 2015 (0 Cr).
- <u>PLPTH 750 Problems in Plant Pathology</u> (KSU) 2 students:
 - Cameron Hunter: Spring 2011 (3 Cr).
 - Brandon Pfannenstiel: Spring 2014 (3 Cr).
- <u>PhD student advisory committee member</u> (KSU) 3 committees:
 - Aashima Kholsa (Biochemistry), commenced 2009, in progress.
 - Amar Godar (Agronomy), commenced 2009, defended 2013.
 - Pierre Migeon (Genetics), commenced 2013, in progress.
- <u>PhD student defense outside chair</u>, (KSU) 3 committees:
 - Yi Yang (Biology), defended Fall 2010.
 - Claire Ruffing (Geography), defended October 2014.
 - Alan Burke (Entomology), plans to defend Fall 2015.
- <u>MS student advisory committee member</u> (KSU) 2 committees:
 - Irazema Fuentes-Bueno (Plant Pathology), commenced 2008, defended 2012;
 - Jesse Ostrander (Plant Pathology), commenced 2010, defended 2013.
- <u>B.Sc.(Hons)</u> Supervisor/Mentor (UM <u>Genetics</u>; research by minor thesis) 3 advisees:
 - Brendan Taig (2007)
 - Lian Shien Lee (2006)
 - Miriam Zanker (1999)
- <u>PhD student advisory committee member</u> (UM <u>Genetics</u>) 5 committees:
 - Chris Wong Koon Ho (2004 2007)
 - Ashley Farlow (2003 2008)
 - Gillian Khew Su-Wen (2003-2008)
 - Eugene Khoo Jing (2004 2005)
 - Brendon Monahan (1999-2002)

- M.Sc. student advisory committee member (UM Genetics) 1 committee:
 - Marion Askin (2004 2006)
- <u>Honours student thesis advisory committee member</u> (UM <u>Genetics</u>) 11 committees:
 - Adi Saputra (2007), Emma Warburton (2007), Madeleine Barton (2006), Sally Lowenstein (2006), Adam Parslow (2006), Jeremy Wade (2006), Elizabeth Commons (2005), Edward Cummings (2005), John Roberts (2005), Amy Wilson-O'Brien (2003), Sally Coutts (1999).

Post-doctoral Mentoring and Supervision:

- Grethel Busot, 2011-2013 (KSU); Subsequent and Current Position: Postdoctoral Fellow, Department of Plant Pathology, Kansas State University.
- Chris Koon Ho Wong, 2007 2008 (UM); Subsequent position: Postdoc, Harvard Medical School; Current Position: Assistant Professor, Faculty of Health Sciences, University of Macau.

Technician training and supervision:

- Kendra Siebert, 2009-2011 (KSU)
- Sara Lewis 2005-2008 (UM)
- Dave Clarke 2006-2007 (UM)
- Jamie Wagglen 2005 (UM)
- Katherine Smith 2004 (UM)
- Mary Wallis 2003 (UM)

TEACHING

Teaching at Kansas State University

PLPTH 611 Agricultural Biotechnology Laboratory (2 credits, Fall: 2009, 2010, 2012, 2013, 2014, 2015)

- new course designed and implemented 2009
- sole instructor and course designer

PLPTH 870 Student Seminar in Plant Pathology (1 credit, Spring 2012, Spring 2013)

Teaching at University of Melbourne

652-215 Genes and Genomes, Lecturer (2003, 2004, 2005, 2006, 2007)

- team taught course
- presented 16 lectures, 5 tutorials; 180 students.

652-216 Molecular and General Genetics Practical, Demonstrator (2007)

- 10 x 3-hour laboratory classes; 100 students.
- 652-302 Molecular Genetics, Lecturer (2004, 2005, 2006, 2007)
 - coordinator, team taught course
 - presented 7 lectures; 140 students.

652-306 Experimental Genetics (2003, 2004, 2005, 2006, 2007)

- team taught
- 3rd year: 35 students (Journal club paper discussions)
- Co-supervision and development of a 7-week research project conducted in the laboratory (6 hours/week; 3-4 students)

652-214 Principles in Genetics and 652-215 Genes and Genomes (2008)

• Course material development.

Honours:

- Thesis assessor (2003 1 thesis, 2005 3 theses, 2006 5 theses, 2007 3 theses)
- Honours Course Work: Lecture-Discussion (2003, 2004).

Victorian Certificate of Education (VCE) Biology Teachers In-Service Program.

• 1 lecture: 8-9 December 2005, & 14-15 December 2006.

ACADEMIC AWARDS AND SCHOLARSHIPS

Total: **\$AU 64,881 + USD 315**.

- Innovative Research Award, KSU Johnson Center for Basic Cancer Research (2015).
- Innovative Research Award, KSU Johnson Center for Basic Cancer Research (2014).
- Innovative Research Award, KSU Johnson Center for Basic Cancer Research (2011).
- First Award, Kansas NSF EPSCoR (2010).
- K-INBRE (Kansas IDeA Network for Biomedical Research Excellence) Major Starter Award (2010).
- Writing-Up Award (1996), The University of Melbourne. **\$AU 2,248**
- Australian Postgraduate Research Award Thesis Allowance (1996). \$AU 800
- Gordon and Breach/Harwood Academic Publishers Student Poster Prize (1995), Organisation and Expression of the Genome Conference, Lorne, Vic.
- Australian Postgraduate Award without Stipend (1995), The University of Melbourne. Tuition exemption: **\$AU 2,408**
- Australian Postgraduate Award without Stipend (1994), The University of Melbourne. Tuition exemption: **\$AU 2,354**
- Financial Assistance Award (1993), 17th Fungal Genetics Conference, Pacific Grove CA, USA. **\$US 315**
- Higher Education Contribution Scheme (HECS) Postgraduate Scholarship (1993), The University of Melbourne. Tuition exemption: **\$AU 2,328**
- Higher Education Contribution Scheme (HECS) Postgraduate Scholarship (1992), The University of Melbourne. Tuition exemption: **\$AU 2,250**
- Higher Education Contribution Scheme (HECS) Postgraduate Scholarship (1991), The University of Melbourne. Tuition exemption: **\$AU 1,992**
- Australian Postgraduate Research Award (1991-1994), The University of Melbourne.
 \$AU 47,644 (\$AU 13,504 p.a. for 3.5 years, \$380 relocation allowance, plus airfare).
- Australian Postgraduate Research Award (1991), The University of Adelaide.
 \$AU 13,504 per annum (offer declined).
- Australian Postgraduate Research Award (1991), Australian National University.
 \$AU 13,504 per annum (offer declined).
- Higher Education Contribution Scheme (HECS) Exemption Scholarship (1990), The University of Adelaide. **\$AU 1,882**
- National Heart Foundation of Australia Vacation Studentship (1989), Division of Clinical Chemistry, Institute of Medical and Veterinary Science, Adelaide, SA.
 \$AU 975

AWARDS, PRIZES AND SCHOLARSHIPS TO STUDENTS IN MY LAB

Graduate students

Damien Downes Total: USD 54,170

- Alvin and RosaLee Sarachek Predoctoral Honors Fellowship in Molecular Biology 2015 \$17,000.
- K-State Research Forum, Interdisciplinary Research Poster Prize, March 2015 \$500.
- Novozymes Student Poster Prize, 12th International Aspergillus meeting, Asilomar CA, March 2015 \$60.
- 28th Fungal Genetics Conference Student Travel Award 2015 \$600.
- Kansas State University Research Foundation (KSURF) Doctoral Research Scholarship \$20,000 (\$15,000 stipend, \$5,000 tuition).
- Tillman Family Agriculture Graduate Student Stipend Enhancement Award 2014 & 2013 \$12,000.
- Alvin and RosaLee Saracheck Predoctoral Travel Award in Molecular Biology 2014 \$1,000.
- European Conference on Fungal Genetics Travel Award 2014 €280 (~\$385).
- Graduate Student Council Travel Award 2015, 2014, 2013 & 2011 \$1,825.
- K-State Research Forum Best Graduate Student Talk, 1st place, March 2013 \$500
- Genetics Society of America Best Student Poster Award Functional and comparative genomics and gene regulation category, 27th Fungal Genetics Conference, Asilomar CA, March 2013 – \$100.
- Novozymes Student Poster Prize, 10th International Aspergillus meeting, Asilomar CA, March 2013 \$200.
- Selected for presentation to the Kansas Board of Regents, K-State Research Forum, March 2012.

Cameron Hunter Total: USD 8,325

- Tillman Family Agriculture Graduate Student Stipend Enhancement Award 2015 – \$6,000
- 28th Fungal Genetics Conference Student Travel Award 2015 \$600
- K-State Research Forum Best Graduate Student Talk, 3rd place, March 2014 \$175
- Graduate Student Council Travel Award 2015, 2013 \$900.
- 27th Fungal Genetics Conference Student Travel Award 2013 \$650.
- Eukaryotic Cell Outstanding Young Investigator Award in recognition of a stellar research presentation, Gordon Research Conference on Cellular and Molecular Biology, Holderness NH, June 2012 expedited review at Eukaryotic Cell.

Undergraduate students

Cameron Hunter Total: USD 6,500

 Department of Health and Human Services (National Institutes of Health) K-INBRE (Kansas IDeA Network of Biomedical Research Excellence) American Reinvestment and Recovery Act (ARRA) Scholarship for Undergraduate Research – \$6,500. "Identification of nuclear localization signals in the transcription factor AreA"

Brandon Pfannenstiel Total: USD 22,325

- KSU Genetics Fellowship 2014 *\$28,800 per annum plus tuition. Full stipend.
 *Fellowship not accepted as Brandon also won scholarships to the Genetics Graduate Programs at University of Wisconsin-Madison and Emory University, and decided to go to Wisconsin.
- Arts and Sciences Fund for Excellence Scholarship 2014 \$1,000.
- Johnson Center for Basic Cancer Research 2013-2014 Cancer Research Award – \$2,000. "A protein kinase deletion screen for regulators of a GATA transcription factor with counterparts involved in carcinogenesis"
- Department of Health and Human Services (National Institutes of Health) K-INBRE – Kansas IDeA Network of Biomedical Research Excellence. STAR Traineeship 2013-2014 – \$10,000. "Interaction between the Nuclear Export Signal of a GATA Transcription Factor and a Nuclear Exportin"
- Microscopy Society of America. Undergraduate Research Scholarship Program 2013-2014 – \$3,000. "The effect of Nuclear Export Signal mutations on subcellular distribution of the GATA transcription factor AreA"
- Johnson Center for Basic Cancer Research 2012-2013 Cancer Research Award – \$2,000. "Identification of key residues within a nuclear export signal conserved in GATA transcription factors involved in carcinogenesis"
- Department of Health and Human Services (National Institutes of Health) K-INBRE – Kansas IDeA Network of Biomedical Research Excellence. Summer/Semester Scholarship for Undergraduate Research. 2012-2013 – \$4,000. "Characterization of nuclear export signal mutants in the GATA transcription factor AreA"
- Gamma Sigma Delta Best Poster Award, KSU College of Agriculture Undergraduate Research Showcase April 2013 \$100.
- K-State Research Forum Undergraduate Student Poster Presentation, 3rd place, March 2013 – \$125.
- Award of Excellence, K-INBRE Symposium, Manhattan KS, January 2013 \$100.

Anna Brokesh Total: USD 9,910

- Department of Health and Human Services (National Institutes of Health) K-INBRE – Kansas IDeA Network of Biomedical Research Excellence. Undergraduate Research Scholar 2015-2016 – \$3,955.
- Johnson Center for Basic Cancer Research 2014-2015 Cancer Research Award – \$2,000. "Role in transcription repression of a Mediator complex component with a counterpart involved in breast and prostate cancer"
- Department of Health and Human Services (National Institutes of Health) K-INBRE – Kansas IDeA Network of Biomedical Research Excellence. Undergraduate Research Scholar 2014-2015 – \$3,955.

ADMINISTRATION AND SERVICE

Administration and committee service at Kansas State University

- Applied Genomics and Biotechnology Minor Coordinator, 2009-2015.
- Curriculum working group for proposed Biotechnology Major, Chair. 2010.
- Applied Genomics and Biotechnology Minor review committee, Chair. 2010.
- Applied Genomics and Biotechnology Minor Committee, Chair. 2011-2015.
- Graduate Certificate in Genetics, Genomics and Biotechnology Committee,

Chair. Development of curriculum, Student Learning Outcomes, Overall Assessment Plan. 2011-2012.

- Alvin and Rosalee Sarachek Fellowship Selection Committee, member. 2010, 2011, 2013.
- Department of Plant Pathology Undergraduate Teaching Committee, member. 2010-2014.
- Biotechnology/KBA proposal committee, member. 2010.
- Department Assessment Committee, Member, 2011-2014.
- Professional Science Masters Advisory Panel, Member. 2011-2012.
- College of Agriculture Undergraduate Teaching Coordinator committee, Member. 2011-2012.
- College of Agriculture International committee, Member. 2013-2014.
- Postdoc search committee (J. Fellers) 2010.
- Postdoc search committee (B.Valent) 2011.
- Postdoc search committee (F.F. White) 2012.
- Bioinformatics Assistant Professor position review committee 2012.
- Bioinformatics Assistant Professor search committee 2012-2013.
- Graduate Student Seminar Course Review Committee 2015.
- Fungal Genetics Stock Center Research Assistant search committee 2015.

Community Service

- Manhattan Area Technical College Advanced Laboratory Biotechnician Certificate Program Advisory Panel, member. 2010-2012.
- Kansas Science Olympiad: set exam for the Cell Biology section. Jan 13, 2010.
- Agriculture Today Radio Interviews with Eric Atkinson. 2010-2014.
- EXCITE! (EXploring sClence, Technology and Engineering) designed and implemented laboratory module on Genes to Phenotypes for KSU summer science camp for high school girls. 2012.

Administration and committee service at The University of Melbourne.

- Subject Coordinator 652-302 Molecular Genetics. 2004-2007.
- Department of Genetics Seminar Coordinator. 2003-2007.

• Contact person and organiser of speakers, Joint Genetics Group Meetings. 2005, 2006. – Meetings of Genetics researchers from The Walter and Eliza Hall Institute, Murdoch Children's Research Institute, Department of Genetics, University of Melbourne and Genetic Epidemiology, Howard Florey Institute.

• Committee for Outreach, Marketing and Promotion, Member (2001 – 2007); Actingchair August 2005 – March 2006.

- Coordination of Department Honours information session and student recruitment (2004, 2005, 2006).
- Major role in the conception, establishment and organisation of twice-yearly Careers in Genetics evenings (2002-2007) to provide potential career directions for students, the opportunity for staff-student interaction and foster a sense of belonging to the Genetics Department for our undergraduate students.
- Major role (with Dr B. Appleton) in the organisation of the end-of-Semester One BBQ for 3rd year students (2004, 2005, 2006, 2007) introduced to allow further development of staff-student interactions.
- Preparation of the Genetics Department Newsletter "The Transcript" (2005).

- Developing promotional material for school students for open day (2004, 2005).
- Course Advice Week Department Coordinator. 2005, 2006, 2007.

• Course advice for undergraduate student subject selection (2003, 2004, 2005, 2006, 2007).

• Course Advice for prospective students – Discovery/Open Day, University of Melbourne (1999, 2001, 2002, 2003, 2004, 2005, 2006)

• Selection Panel for Research Assistant Positions, Member – Department of Genetics, University of Melbourne (2003, 2004, 2005, 2006).

SERVICE TO DISCIPLINE

Aspergillus Genomes Research Policy Group Executive Committee

- Elected member, international committee: 2011-2013.
- Organizing Committee, 11th International Aspergillus meeting: Asperfest 11, Sevilla, Spain, March 22-23, 2014.
- Organizing Committee, 10th International Aspergillus meeting: Asperfest 10, Asilomar CA, USA, March 11-12, 2013.
- Organizing Committee, 9th International Aspergillus meeting: Asperfest 9, Marburg, Germany, March 29-30, 2012.
- Co-chair, Talks from Abstracts, 9th International Aspergillus meeting: Asperfest 9, Marburg, Germany, March 29-30, 2012.
- Student Poster Prize judge, 9th International Aspergillus meeting: Asperfest 9, Marburg, Germany, March 29-30, 2012.

Editorial Board Membership

• Frontiers in Fungi and Their Interactions: Review Editor: 2013 – present.

ad hoc grant reviews Total – 28.

- US-Israel Binational Agricultural Research Development (BARD) Fund. 2014: 1 proposal.
- Wellcome Trust Sir Henry Wellcome Fellowship Programme. 2014: 2 proposals.
- Research Council United Kingdom, Biotechnology and Biological Sciences Research Council (BBSRC). 2014: 1 proposal.
- FWF Austrian Science Fund, Biological and Medical Sciences. 2014: 1 proposal.
- FWF Austrian Science Fund, Erwin Schroedinger-Programme. 2014: 1 proposal.
- National Science Foundation (NSF) Molecular and Cellular Biology. 2011: 1 proposal.
- CRIS proposal review USDA New Orleans NP108 Food Safety 2010: 1 proposal.
- Australian Research Council Intreader (Expert of High International Standing): Nominated by ARC College of Experts as an Expert of High International Standing. 2004-2009: 17 proposals.
- Netherlands Organisation for Scientific Research (NWO). 2009: 1 proposal.
- University of Missouri Research Board. 2008-2009: 2 proposals.

ad hoc manuscript reviews (Journal: Year – Number reviewed), Total – 39.

- Applied and Environmental Microbiology: 2007 1
- Current Genetics: 2004 -1.
- *Eukaryotic Cell*: 2011 2, 2008 1, 2006 1.

- *Fungal Genetics and Biology*: 2015 2, 2012 2, 2011 1, 2008 1, 2007 2, 2006 1, 2005 1, 2004 2.
- International Journal of Food Microbiology: 2009 1, 2008 1.
- *Microbiology*: 2012 1, 2011 1, 2010 1.
- *Molecular Genetics and Genomics*; 2005 1.
- *Molecular Microbiology*: 2015 1, 2014 2, 2013 1, 2008 1.
- Mycologia: 2012 1.
- New Phytologist: 2008 1.
- *PLoS Genetics:* 2012 2.
- *PLoS Pathogens:* 2012 1.
- *PLoS ONE:* 2015 2, 2014 1, 2013 1.
- *The ISME Journal*: 2011 1.

Conference Session Chair

- Chair, Perkins-Metzenberg Lecture (M.J. Hynes), 28th Fungal Genetics Conference, Pacific Grove CA March 2015.
- Co-chair, Plenary session, 10th International Aspergillus meeting: Asperfest 10, Sevilla, Spain, March 22-23, 2013.
- Co-chair, Talks from Abstracts session, 9th International Aspergillus meeting: Asperfest 9, Marburg, Germany, March 29-30, 2012.
- Co-Chair: Signal Transduction session. Xth International Fungal Biology Conference and VIIIth Mexican Congress of Molecular and Cellular Biology of Fungi: Frontiers in Fungal Biology meeting, Ensenada, B.C., Mexico. December 2009.
- Chair, Gene Expression I, Concurrent session, Genetics Society of Australia, 51st Annual Meeting, July 11-14, 2004.

PROFESSIONAL ACTIVITIES

- Member, Genetics Society of AustralAsia (formerly Genetics Society of Australia) (1992-2011)
- Affiliate Member, Genetics Society of America (2005)
- Member, Genetics Society of America (2006-2015)
- Member, Australian Society for Biochemistry and Molecular Biology (1993-2015)
- Member, American Phytopathological Society (2009-2015)
- Participant/Member, North Central Coordinating Committee NCCC 207 & NCCC 307: Biochemistry and Genetics of Plant-Fungal Interactions [North Central Regional Association of State Agricultural Experiment Station Directors (NCRA) Multistate Project] (2009-2015)
- Member, American Society for Microbiology (2014-2015)
- Member, American Association for the Advancement of Science (2015)
- Sabbatical visitor: Dr Margaret Katz, Department of Molecular and Cellular Biology, University of New England, NSW, 01 August 2003 – 10 September 2003.