

Refereed Journal Articles

Baker P, Jackson P, Aitken K (2010) 'Bayesian estimation of marker dosage in sugarcane and other autopolyploids' *Theoretical and Applied Genetics* 120: 1653-1672.

Chen W, Marcellin E, Hung J, Nielsen LK (2009) 'Hyaluronan molecular weight is controlled by UDP-N- acetylglucosamine concentration in *Streptococcus zooepidemicus*' *Journal of Biological Chemistry* 284: 18007-18014.

Davies M, Campbell M, Henry RJ (2010) 'Editorial: The role of plant biotechnology in bio-energy production' *Plant Biotechnology Journal* 8: 243.

de Oliveira Dal'molin CG, Quek LE, Palfreyman RW, Brumbley SM, Nielsen LK (2010) 'AraGEM - a genome-scale reconstruction of the primary metabolic network in *Arabidopsis thaliana*' *Plant Physiology* 152: 579-589.

Fong Chong B, Abeydeera WPP, Glassop D, Bonnett GD, O'Shea MG, Brumbley SM (2010) 'Co-ordinated synthesis of gentiobitol and sorbitol, evidence of sorbitol glycosylation in transgenic sugarcane' *Phytochemistry* 71:736-741.

Fong Chong B, Mill E, Bonnett GD, Gnanasambandam A (2010) 'Early exposure to ethylene modifies shoot development and increases sucrose accumulation rate in sugarcane' *Journal of Plant Growth Regulation* 29: 149-163.

Glassop D, Ryan LP, Bonnett GD, Rae AL (2010) 'The complement of soluble sugars in the *Saccharum* complex' *Tropical Plant Biology* 3: 110-122.

Heller-Uszynska K, Caig V, Carling J, Evers M, Uszynski G, Piperidis G, Gilmour R, Aitken K, Jackson P, Huttner E, Kilian A (2010) 'Diversity Arrays Technology (DArT) effectively reveals DNA polymorphism in a large and complex genome of sugarcane' *Molecular Breeding* [DOI: 10.1007/s11032-010-9460-y].

Henry RJ (2010) 'Evaluation of plant biomass resources available for replacement of fossil oil' *Plant Biotechnology Journal* 8: 288-293.

Hilton A, Kanasa H, Nichols K (2010) 'Developing tomorrow's decision-makers: Opportunities for Biotechnology Education Research' *The Australian Educational Researcher* (in press).

Jackson MA, Nutt KA, Hassall R, Rae AL (2010) 'Influence of subcellular targeting signals on the production of avidin in sugarcane' *Functional Plant Biology* (in press).

Joachimsthal EL, Reeves RKH, Hung J, Nielsen LK, Owerkerk D, Klieve AV, Vickers CE (2010) 'Production of bacteriocins by *Streptococcus bovis* strains from Australian ruminants' *Journal of Applied Microbiology* 108: 428-436.

Joyce P, Kuwahata M, Turner N, Lakshmanan P (2010) 'Selection system and co-cultivation medium are important determinants of *Agrobacterium*-mediated transformation of sugarcane' *Plant Cell Reports* 29:173-183.

Marcellin E, Chen W, Nielsen LK (2010) 'Understanding plasmid effect on hyaluronic acid molecular weight produced by *Streptococcus equi* subsp. *Zooepidemicus*' *Metabolic Engineering* 12: 62-69.

Marcellin E, Gruber CW, Archer C, Craik DJ, Nielsen LK (2009) 'Proteome analysis of the hyaluronic acid-producing bacterium, *Streptococcus zooepidemicus*' *Proteome Science* 7: 13.

Marcellin E, Nielsen LK, Abeydeera P, Krömer JO (2009) 'Quantitative analysis of intracellular sugar phosphates and sugar nucleotides in encapsulated *Streptococci* using HPAEC-PAD' *Biotechnology Journal* 4: 58-63.

McIntyre CL, Goode M, Monks T, Bonnett GD (2009) 'The complex genetic structure of sugarcane limits identification of additional SNP-defined simplex alleles in microsatellite loci' *Tropical Plant Biology* 2: 133-142.

McNeil MD, Hermann S, Jackson PA, Aitken KS (2010) 'Conversion of AFLP markers to high throughput markers in a complex polyploidy, sugarcane' *Molecular Breeding* [DOI 10.1007/s11032-010-9441-1].



Morris SE (2010) “How to survive your doctorate: what others don’t tell you” book review’ *Studies in Higher Education* 35: 363–366.

Morris SE (2010) ‘Assessing institutional compliance with the ‘Australian Code for the Responsible Conduct of Research’ - submitted for publication 29 October 2009.

Piperidis G, Piperidis N, D’Hont A (2010) ‘Molecular cytogenetic investigation of chromosome composition and transmission in sugarcane’ *Molecular Genetics and Genomics* [DOI: 10.1007/s11032-010-9460-y].

Piperidis N, Chen J-W, Deng H-H, Wang L-P, Jackson P, Piperidis G (2010) ‘GISH characterization of *Erianthus arundinaceus* chromosomes in three generations of sugarcane intergeneric hybrids’ *Genome* 53: 331–336.

Rae AL, Jackson MA, Nguyen CH, Bonnett GD (2009) ‘Functional specialization of vacuoles in sugarcane leaf and stem’ *Tropical Plant Biology* 2: 13-22.

Tilbrook K, Gnanasambandam A, Schenk PM, Brumbley SM (2010) ‘Efficient targeting of polyhydroxybutyrate biosynthetic enzymes to plant peroxisomes

requires more than three amino acids in carboxyl-terminal signal’ *Journal of Plant Physiology* 167: 329-332.

Wei X, Jackson PA, Hermann S (2010) ‘Simultaneously accounting for population structure, genotype by environment interaction and spatial variation in marker-trait associations in sugarcane’ *Genome* – accepted for publication.

Whan A, Robinson N, Lakshmanan P, Schmidt S, Aitken K (2010) ‘A quantitative genetics approach to nitrogen use efficiency in sugarcane’ *Functional Plant Biology* 37: 448-454.

Book/book chapter/ book review

Bonnett GD, Henry RJ, 'Saccharum' in Kole C (ed.), *Wealth of Wild Species: Role in Plant Genome Elucidation and Improvement (Wild Relatives of Industrial Crops)*, vol. 8. Springer (2009) - in press.

Casu RE, 'Role of bioinformatics as a tool for sugarcane research' in Henry RJ and Kole C (eds.), *Genetics, Genomics and Breeding of Sugarcane*. Enfield: Science Publishers (2010) - in press.

Casu RE, Hotta CT, Souza GM, 'Functional genomics: Transcriptomics of sugarcane – current status and future prospects' in Henry RJ and Kole C (eds.), *Genetics, Genomics and Breeding of Sugarcane*. Enfield: Science Publishers (2010) - in press.

Henry RJ, 'Basic Information on the Sugarcane Plant' in Henry RJ and Kole C (eds.), *Genetics, Genomics and Breeding of Sugarcane*. Enfield: Science Publishers (2010) - in press.

Henry RJ, Kole C (eds.) *Genetics, Genomics and Breeding of Sugarcane*. Enfield: Science Publishers (2010).

Hilton A, Nichols K, Gitsaki C, 'Multiliteracies in secondary chemistry: A model for using digital technologies to scaffold the development of students' chemical literacy' in Pullen DL and Cole DR (eds.) *Multiliteracies*

and technology enhanced education: Social practice and the global classroom. Hershey: IGI Global (2010) pp. 186-208.

Marcellin E, Chen W, Nielsen LK, 'Microbial hyaluronic acid biosynthesis' in Rehm BHA (ed.) *Microbial production of biopolymers and polymer precursors: Applications and perspectives*. Norwich: Caister Academic Press (2009) pp. 163-180.

Koops AJ, Brumbley SM, Poirier Y, de Laat A, Scott E, Sanders J, van der Meer IM, 'Production of chemical building blocks by plants' in Langeveld H, Meeusen M, Sanders J (eds.) *The biobased economy: biofuels, materials and chemicals in the post-oil era*. London: Earthscan Publishing (2010) pp. 131-146.

Poirier Y, Brumbley SM, 'Metabolic engineering of plants for the synthesis of polyhydroxyalkanoates' in Steinbuechel A and Chen G-Q (eds.) *Microbiology Monographs: Plastics from Bacteria: Natural Functions and Applications*. Heidelberg: Springer (2010) pp. 187-211.

Refereed conference papers

Bonnett GD, Olivares-Villegas JJ, Berding N, Morgan T, 'Sugarcane sexual reproduction in a commercial environment: Research to underpin regulatory decisions for genetically modified sugarcane'. *Australian Society of Sugar Cane Technologists*, 2010, vol. 32: 1-9.

Hilton A, Gitsaki C, 'Integrating educational technologies into chemistry instruction: TPCK development and implications for teacher education'. *54th International Council of Education in Teaching World Assembly*, 2009.

Morris SE, 'Wielding the cane: outcomes from the CRC SIB's postgraduate education program'. *Australian Society of Sugar Cane Technologists*, 2010, vol. 32: 507-516.

Morris SE (2010) Overview of sugarcane industry biotechnology workshops. *Proceedings of the Australian Society of Sugar Cane Technologists* 32: 10-19

Olivares-Villegas JJ, Berding N, Morgan T, Bonnett GD, 'A support framework for deployment of genetically modified sugarcane: Identifying potential risks from sexual reproduction of commercial cultivars'. *27th International Society of Sugar Cane Technologists Veracruz*, 7-11 March 2010.

Renouf MA, Pagan RJ, Wegener MK, 'Environmental benefits and trade-offs of producing bio-energy and bio-materials from Australian sugarcane'. *Australian Society of Sugar Cane Technologists*, 2010, vol. 32: 28-37.

Renouf MA, 'Diversifying the products from Australian agriculture - which products give the greatest environmental benefits?' *7th International*

Conference on Life Cycle Assessment in the Agri-Food Sector, Bari, 22-24 September 2010.

Conference presentations/posters

Aitken K, McNeil M, Li J, Heller-Uszynska K, Kilian A, Hermann S, Parh DK, Jackson P, 'Comparative mapping of a sugarcane genetic map to the sorghum genome'. *14th Australian Plant Breeding Conference*, 10-14 August 2009.

Bonnett GD, Olivares-Villegas JJ, Berding N, Morgan T, 'Sexual development of sugarcane in commercial fields: Understanding for the development of GM sugarcane'. *2nd Tropical Crop Biotechnology Conference*, Hazyview, 21-25 July 2009.

Brumbley SM, 'Sugarcane: A Crop with the Potential to Function as Both a Biofactory Producing Industrial Chemicals and as a Large Scale Source of Carbohydrates for Biorefineries'. *Industrial Biotech Forum: Emerging Specialised Energy Crops*, Brisbane, 23 October 2009.

Brumbley SM, 'The BioEconomy: Opportunities to grow Australia's Economy'. *AusBiotech*, Melbourne, 26-29 October 2009.

Brumbley SM, Petrasovits LA, McQualter RM, Zhao L, Dal'Molin C, Snell KD, Nielsen LK, 'Increasing Production of Polyhydroxybutyrate in

Sugarcane Plastids'. *18th Plant & Animal Genome Conference*, San Diego, 9-13 January 2010.

Brumbley SM, Petrasovits L, McQualter R, Zhou L, Dal'Molin C, Snell, Nielsen, L, 'Developing sugarcane as a biofactory to produce bioplastics'. *Tropical Crops Biotechnology Conference*, South Africa, 22-25 July 2009.

Brumbley SM, Petrasovits LA, McQualter RA, Zhou L, Nielsen LK, 'Production of the biopolymer polyhydroxybutyrate in sugarcane'. *Plant Metabolic Engineering Gordon Research Conference*, Waterville Valley, 12-17 August 2009.

Cassani L, de Oliveira Dal'Molin CG, Quek L-E, Nielsen LK, 'On the reconstruction of the *Saccharopolyspora erythraea* metabolic network model'. *International 15th International Symposium on the Biology of Actinomycetes Informatics*, Shanghai, August 2009.

de Oliveira Dal'molin CG, 'AlgaGEM: Genome-Scale Model of Algae based on *Chlamydomonas reinhardtii* Genome'. *11th International Symposium on the Genetics of Industrial Microorganisms*, Melbourne, 28 June – 01 July 2010.

de Oliveira Dal'molin CG, 'Introduction of the Sugarcane Biofactory Program -Systems biology approach for sugarcane metabolic engineering'. *2nd Symposium of the Centre for Systems and Synthetic Biology*, Brisbane, 24-25 February 2010.

de Oliveira Dal'molin CG, Quek LE, Palfreyman, RW, Nielsen, LK, 'Genome Scale Model of C4 plants'. *1st Australasian Symposium on Metabolomics*, Auckland, July 2009.

Eggington K, Wright T, 'An investigation of teacher-scientist collaborations'. *European Science Education Research Association Conference*, Istanbul, 31 August-4 September.

Eggington K, 'Components for effective teacher-scientist collaborations'. *The University of Queensland's School of Education Postgraduate Research Conference*, Brisbane, 18-19 September 2009.

Eggington K, 'A study of teacher-scientist collaboration settings'. *National Association of Research in Science Teaching Annual International Conference*, Philadelphia, 21-24 March 2010.

Eggington K, Wright T, 'Components of successful teacher-scientist collaborations.' *Australasian Science Education Research Association Conference*, Geelong, 1-4 July 2009.

Glassop D, Ryan LP, Bonnett GD, Rae AL, 'The complement of soluble sugars in the *Saccharum* complex'. *ComBio*, Auckland, 6-10 December 2009.

Henry RJ, 'Analysis of SNP discovered by next generation sequencing using the Sequenom MassARRAY system'. *18th Plant and Animal Genome Conference*, Workshop: Sequenom, San Diego, 9 January 2010.

Publications

Henry RJ, Bundock P, Aitken K, Casu R, 'Genome sequencing for marker discovery in sugarcane'. *18th Plant and Animal Genome Conference, Workshop: Sugarcane Genome Sequencing Initiative, San Diego, 9 January 2010.*

Hilton A, 'Enhancing students' representational competence through multimodal text production in investigative environments in high school chemistry'. *Australasian Science Education Research Association Conference, Geelong, 1-4 July 2009.*

Hilton A, 'Knowledge transformation through multimodal text production in a high school chemistry inquiry-based setting'. *European Science Education Research Association Conference, Istanbul, August 31-September 4 2009.*

Hilton A, 'Scaffolded development of representational skills in Chemistry: Instructional strategies integrating digital technologies'. *National Association of Research in Science Teaching Conference, Philadelphia, 21-24 March 2010.*

Hilton A, Gitsaki C, 'Integrating educational technologies into chemistry instruction: TPCK development and implications for teacher education'. *54th International Council of Education in Teaching World Assembly, Muscat, 2009.*

Hodoniczky J, Robinson G, Morris C, Bonnett GD, Rae AL, 'Alternative sugars for dietary applications'. *ComBio 2009, Christchurch, 6-10 December 2009.*

Kanasa H, 'Changes in the scientific literacy of middle years students during an inquiry-based science unit: A case study'. *Australasian Science Education Research Association Conference, Geelong, 1-4 July 2009.*

Morris SE, 'Education and training workshop'. *CRC Association Conference, Alice Springs, 26-28 May 2010.*

Morris SE, 'Is this bullying? Doctoral students' experiences of supervisory bullying'. *2nd International Doctoral Educational Research Network Meeting, Malaysia, 19-23 April 2010.*

Morris SE, 'Getting industry supervision right: lessons from RHD candidates'. *2010 Quality in Postgraduate Research Conference, Adelaide, 13-15 April 2010.*

Morris SE, 'Authorship management systems to improve collaborative research outcomes'. *2010 Quality in Postgraduate Research Conference, Adelaide, 13-15 April 2010.*

Morris SE, 'Challenging the social norms of authorship assignment'. *Society for Research into Higher Education Postgraduate and Newer Researchers Conference, 7 December 2009.*

Morris SE, 'Authorship management systems to improve collaborative research outcomes' (Poster 15). *Australasian Research Management Society Conference: Christchurch, 16-18 September 2009.*

Morris SE, 'Authorship experiences of Research Higher Degree students'. *Higher Education Research and Development Society of Australasia Conference, 6-9 July 2009.*

Nielsen LK, 'Developing better processes through systems and synthetic biology'. *AusBiotech, Melbourne, 27-30 October 2009.*

Nielsen LK, 'Developing better processes through systems and synthetic biology'. *Bioprocessing Network Conference, Brisbane, 30 September -2 October 2009.*

Nielsen LK, 'Metabolic engineering of hyaluronic acid production in *Streptococci*'. *SIM 2009, Toronto, 26-30 July 2009.*

Nielsen LK, 'Sugarcane Biorefineries'. *ATSE National Symposium, Brisbane, 16-17 November 2009.*

Nielsen LK, 'Sugarcane Biorefineries'. *ATSE National Symposium, Brisbane, 16-17 November 2009.*

Olivares-Villegas JJ, Berding N, Morgan T, Bonnett GD, 'The importance of understanding the sexual reproduction of sugarcane in commercial fields for the development of genetically modified (GM) sugarcane'.

9th Sugarcane Breeding and Germplasm Workshop, Palm Cove, 17-21 August 2009.

Olivares-Villegas JJ, Berding N, Morgan T, Powell RP, Bonnett GD, 'Potential Sugarcane Intervarietal Gene Flow: Research for the Regulated Deployment of Genetically Modified Sugarcane'. *4th International Conference on Coexistence between Genetically Modified (GM) and non-GM based Agricultural Supply Chains*, Melbourne, 10-12 November 2009.

Pioch KA, Grof CPL, Critchley C, Rae AL, 'Characterisation of a tonoplast transporter from sugarcane'. *ComBio 2009*, Christchurch, 6-10 December 2009.

Rae AL, Hodoniczky J, Morris C, Manners JM, Bonnett GD, 'Alternative sugars for dietary applications'. *Tropical Crop Biotechnology Conference*, Hazyview, 21-24 July 2009.

Souza GM, Ming R, Henry RJ, D'Hont A, Potier B, Paterson A, 'The Sugarcane Genome Sequencing Effort: An Overview Of The Strategy, Goals And Existing Data'. *18th Plant and Animal Genome Conference*, Workshop: Sequencing of Complex Genomes, San Diego, 9 January 2010.

Tilbrook K, Poirier Y, McQualter RB, Gnanasambandam A, Schenk PM, Brumbley SM, 'PHB Production in Plant Peroxisomes'. *18th Plant & Animal Genome Conference*, San Diego, 9-13 January 2010.

Workshop/ industry reports/ presentations

Eggington K, 'It's true! Scientists CAN help teachers learn new tricks!' *Conference of the Australian Science Teachers Association*, Launceston, 5-7 July 2009.

Hilton A, *Inquiry in science. Sharjah Women's Higher College of Technology*, Sharjah, 24 November 2009.

Hilton A, 'Using, constructing and integrating multiple representations: Learning abstract concepts in senior chemistry'. *Conference of the Australian Science Teachers Association*, Launceston, 5-7 July 2009.

Kanasa H, 'Creating an inquiry-based science unit in 10 easy steps'. *Conference of the Australian Science Teachers Association*, Launceston, 5-7 July 2009.

Kanasa H, *Changes in the scientific literacy of middle years students, in relation to biotechnology, after completing an inquiry-based unit*. Presentation at the Biotechnology and Nanotechnology Communications meeting held in Canberra, 8 July 2009.

Morris SE, *Negotiating for authorship*. Research Managers' workshop held at the CRC Association Conference, Alice Springs, 26-28 May 2010.

Morris SE, *Negotiating for authorship*. Workshop held for The University of Queensland's Staff Development Program, Brisbane, 30 April 2010.

Morris SE, *Negotiating for authorship*. Workshop held at The University of Queensland's School of Medicine, Brisbane, 9 April 2010.

Morris SE, *Negotiating for authorship*. 2nd International Doctoral Educational Research Network Meeting, Malaysia, 19-23 April 2010.

Morris SE, *Negotiating for authorship*. Workshop held at Southern Cross University, Lismore, 28 October 2009.

Morris SE, *The "U" and "I" of publishing: a road map for successful research collaborations*. Workshop held at University of Western Sydney's School of Business Postgraduate Colloquium, Sydney, 29 September 2009.

Morris SE, *Negotiating for authorship*. Workshop held at University of Western Sydney, Sydney, 28 September 2009.

Other publications

Bolton C, Scalia G, Punpee P, Hewage-Don N, Hassall R, Brown L, Gould D, Cobon J, Stirling G, Lakshmanan P, (2009) *Progress seminar: Novel approach to improve pest resistance in sugarcane*. Dow AgroSciences LLC, Indianapolis, 22 October 2009.