

Publications

Comparative Genomics

Published

Gianfrancesco F, Sanges R, Esposito T, Pannone E, Rao E, Rappold G, Archidiacono N, Graves J, Forabosco A, and D'Urso M. Differential divergence of three human pseudoautosomal genes and their mouse homologues: Implications for sex chromosome evolution. *Genome Research* **11**: 2095-2100.

Graves J. From brain-determination to testis determination: Evolution of the mammalian sex determining gene. *Reproduction, Fertility and Development* **13**: 1-8.

Graves J. Of course sex matters. *Cell* **X**:23 -25.

Graves J and Delbridge M. The X - A sexy chromosome. *Bioessays* **23**: 1091-1094.

Graves J, Svartman I, Wakefield M, Taggart M, De Leo D, Ferguson-Smith A, Rens M, O'Brien W, Voullaire P and Westerman L. Chromosomal painting detects non-random chromosome arrangement in dasyurid marsupial sperm. *Chromosome Research* **8**: 251-259.

Lingenfelter P, Delbridge M, Thomas S, Graves J and Disteché C. Expression and conservation of processed copies of the *RBMX* gene. *Mammalian Genome* **12**: 538-545.

O'Neill R, Eldridge M and Graves J. Chromosome heterozygosity and de novo chromosome rearrangements in mammalian interspecies hybrids. *Mammalian Genome* **12**: 256-259.

Ohlsson R, Paldi A and Graves J. Did genomic printing and X chromosome inac-

tivation arise from stochastic impression? *Trends in Genetics* **17**: 136-141.

Pask A and Graves J. Sex chromosomes and sex determining genes - insights from marsupials and monotremes. In: *Genes and Mechanisms in Vertebrate Sex Determination* 1st edition (eds: G Scherer and M Schmid). Berlin, Birkhäuser Verlag: 71-95.

Rens W, O'Brien P, Yang F, Solanky N, Perelman P, Graphodatsky A, Ferguson M, Svartman M, De Leo A, Graves J and Ferguson-Smith M. Karyotype relationships between distantly related marsupials from South America and Australia. *Chromosome Research* **9**: 301-308.

Waters P, Duffy B, Frost C, Delbridge M and Graves J. The human Y chromosome derives largely from a single autosomal region added to the sex chromosomes 80-130 million years ago. *Cytogenetics and Cell Genetics* **92**: 74-79.

Waters P, Kirby P, and Graves J. Assignment of the SMARCF1 gene to tammar wallaby chromosome 5q by fluorescence in situ hybridisation. *Cytogenetics and Cell Genetics* **93**: 315-316.

Whitworth DJ, Pask AJ, Shaw G, Graves JAM, Behringer RR and Renfree MB. Characterization of Steroidogenic Factor 1 during sexual differentiation in a marsupial. *Gene* **277**:209 - 219.

In Press

El-Mogharbel N and Graves J. X and Y chromosomes. In: *Encyclopedia of the Human Genome* 1st edition (ed: David Cooper). Cardiff, Nature Publishing Group.

Graves J. Evolution of the testis determining gene - the rise and fall of SRY. In: *The Genetics and Biology of Sex Determination* 1st edition (eds: J Goode and D Chadwick). Chichester, John Wiley and Sons.

Sherwin W and Graves J. What marsupials can do for genetics and what genetics can do for marsupials. In: *Marsupial Biology* 1st edition (ed: P Armati).

Wakefield M and Graves J. The X chromosome. In: *Encyclopedia of the Human Genome* 1st edition (ed: David Cooper). Cardiff, Nature Publishing Group.

Wakefield M and Graves J. X chromosome inactivation. In: *Encyclopedia of the Human Genome* 1st edition (ed: David Cooper). Cardiff, Nature Publishing Group.

Developmental Neurobiology

Published

Hearn JP. Introduction to the science. In: *Human Cloning: Scientific, Ethical and Regulatory Aspects of Human Cloning and Stem Cell Research*. House of Representatives Standing Committee on Legal and Constitutional Affairs, Canberra: 11-30.

Hearn JP and Eckersley BE. Scientific evidence. In: *Human Cloning: Scientific, Ethical and Regulatory Aspects of Human Cloning and Stem Cell Research*. House of Representatives Standing Committee on Legal and Constitutional Affairs, Canberra: 31-52.

Hearn JP and Eckersley BE. The focus of international and Australian scientific research. In: *Human Cloning: Scientific,*

Developmental Neurobiology continued Ethical and Regulatory Aspects of Human Cloning and Stem Cell Research. House of Representatives Standing Committee on Legal and Constitutional Affairs, Canberra: 53-64.

Ibbotson MR. Identification of mechanisms underlying motion detection in mammals. In: *Computational, Neural and Ecological Constraints of Visual Motion Processing* (eds: JM Zanker and J Zeil), Springer-Verlag, Berlin, Heidelberg. pp 34-43.

Ibbotson MR and Clifford C. Characterising the temporal delay filters of biological motion detectors. *Vision Research* **41**:2311-2323.

Ibbotson MR and Clifford C. Interactions between ON and OFF signals in directional motion detectors feeding the nucleus of the optic tract of the wallaby. *Journal of Neurophysiology* **86**: 997-915.

Liu G, Hill K and Mark R. Temporal relationship between the auditory brainstem response and focal responses of auditory nerve root and cochlear nucleus during development in the Tammar wallaby (*Macropus eugenii*). *Audiology and Neuro-Otology* **6(3)**: 140-153.

Lui G and Mark R. Functional development of the inferior colliculus (IQ and its relationship with the auditory brainstem response (ABR) in the tammar wallaby (*Macropus eugenii*). *Hearing Research* **157(1-2)**:112-123.

Shaikh RB, Santee S, Granger SW, Butrovich K, Cheung T, Kronenberg M, Cheroutre H and Ware CF. Constitutive expression of LIGHT on T cells leads to lymphocyte activation, inflammation, and tissue destruction. *Journal of Immunology* **167(11)**: 6330-7.

In press

Cheung TC and Hearn JP. Molecular cloning characterization and tissue expression of the GnRH receptor in the Tamar wallaby (*Macropus eugenii*).

Journal of Reproduction, Fertility and Development.

Clifford CWG and Ibbotson MR. Fundamental mechanisms of visual motion detection. *Progress in Neurobiology*.

Hearn JP. Embryo implantation and embryonic stem cell development in primates. *Journal of Reproduction, Fertility and Development*.

Ibbotson MR and Mark RF. Visual response properties of cells in the visual cortex of an Australian marsupial, the wallaby *Macropus eugenii*. *Journal of Comparative Physiology A*.

Ibbotson MR, Marotte LR and Mark RF. Investigations into the source of binocular input to the nucleus of the optic tract in an Australian marsupial, the wallaby *Macropus eugenii*. *Experimental Brain Research*.

Osborne P, Vidovic M, Chieng B, Hill C, and Christie M. Expression of mRNA and functional alpha1-adrenoceptors that suppress the GIRK conductance in adult rat locus coeruleus neurones. *British Journal of Pharmacology*.

Environmental Biology

Published

Barbour MM, Andrews TJ and Farquhar GD. Correlations between oxygen isotope ratios of wood constituents of *Quercus* and *Pinus* samples from around the world. *Australian Journal of Plant Physiology* **28**:335-348.

Bird MI, Lloyd JJ, Santruckova H and Veenendaal E. Global soil organic carbon. pp 185-199 In *Global biogeochemical cycles in the climate system 1st edition* (eds: E-D Schultze et al). San Diego, Academic Press: 350p.

Buer C. Micromanipulation by light in biology and medicine: The laser microbeam and optical tweezers. *Quarterly Review of Biology* **76**: 277-278.

Cernusak LA and Marshall JD. Responses of foliar ¹³C, gas exchange and leaf morphology to reduced hydraulic conductivity in *Pinus monticola* branches. *Tree Physiology* **21**: 1215-1222.

Cernusak LA, Marshall JD, Comstock JP, Balster NJ. Carbon isotope discrimination in photosynthetic bark. *Oecologia* **128**: 24-35

Evans JR and Edwards E. Nutrient uptake and use in plant growth. In: *Proceedings of Net Ecosystem Exchange: CRC Workshop*, Canberra: 75-81.

Evans JR and Poorter, H. Photosynthetic acclimation of plants to growth irradiance: The relative importance of specific leaf area and nitrogen partitioning in maximizing carbon gain. *Plant Cell and Environment* **24**: 755-767.

Farquhar GD, von Caemmerer S and Berry JA. Models of photosynthesis. *Plant Physiology* **125**: 42-45.

Franks PJ and Farquhar, GD. The effect of exogenous abscisic acid on stomatal development, stomatal mechanics, and leaf exchange in *Tradescantia virginia*. *Plant Physiology* **125**: 935-942.

Lloyd JJ, Bird MI, Veenendaal E and Kruijt, B. Should phosphorus be constraining moist tropical forest responses to increasing CO₂ concentrations. pp 95-114 in: *Global biogeochemical cycles in the climate system 1st edition* (eds: E-D Schultze et al). San Diego, Academic Press: 350p.

Loveys Beth R, Loveys Brain R and Tyerman SD. Water relations and gas exchange of the root hemiparasite *Santalum acuminatum* (quandong). *Australian Journal of Botany* **49**: 479-486.

Loveys Beth R, Tyerman SD and Loveys Brain R. Transfer of photosynthate and

naturally occurring insecticidal compounds from host plants to the root hemiparasite *Santalum acuminatum* (quandong). *Australian Journal of Botany* **49**: 9-16.

Malik AI, Colmer TD, Lambers H and Schortemeyer M. Changes in physiological and morphological traits of roots and shoots of wheat in response to different depths of waterlogging. *Australian Journal of Plant Physiology* **28**: 1121-1131.

Miller JM, Williams RJ and Farquhar GD. Carbon isotope discrimination by a sequence of *Eucalyptus* species along a subcontinental rainfall gradient in Australia. *Functional Ecology* **15**: 222-232.

Prasolova NV, Xu Z, Farquhar GD, Saffigna PG and Dieters MJ. Canopy carbon and oxygen isotope composition of 9-year-old hoop pine families in relation to carbon isotope composition, growth, field growth performance, and canopy nitrogen concentration. *Canadian Journal of Forest Research* **31**: 673-681.

Prentice IC, Farquhar GD, Fasham M, Goulden M, Heimann M, Jaramillo V, Kheshgi H, Le Quéré C, Scholes R and Wallace D. The carbon cycle and atmospheric carbon dioxide. In: *Climate Change 2001: The Scientific Basis* 1st edition (eds: JT Houghton, Y Ding, DJ Griggs, M Noguer, PJ van der Linden, X Dai, K Maskell and CA Johnson). Cambridge, UK, Cambridge University Press: 183-237.

Roderick ML, Farquhar GD, Berry SL and Noble IR. On the direct effect of clouds and atmospheric particles on the productivity and structure of vegetation. *Oecologia* **129**: 21-30.

Tantikanjana T, Yong JWH, Letham DS, Griffith M, Hussain M, Ljung K, Sandberg G and Sindaresan V. Control of axillary bud initiation and shoot architecture in *Arabidopsis* through the SUPERSHOOT gene. *Genes and Development* **15**: 1577-1588.

Turney CSM, Bird MI, Fifield LK, Roberts RG, Smith MA, Dortch CE, Grun R, Lawson E, Miller GH, Dortch J, Cresswell RG and Ayliffe LK. Breaking the radiocarbon barrier and early human occupation at Devil's Lair, southwestern Australia. *Quaternary Research* **55(1)**: 3-13.

Turney CSM, Bird MI, Fifield LK, Santos GM, di Tada ML, Hausladen PA and Zhou Y. The development of a robust radiocarbon chronology for Lynch's Crater (North Queensland) using different pretreatment strategies. *Radiocarbon* **43**: 45-54.

Vitali F, Longstaffe FJ, Bird MI and Caldwell WGE. Hydrogen-isotope fractionation in aluminium hydroxides: synthesis products versus natural samples from bauxites. *Geochimica et Cosmochimica Acta* **65**: 1381-1389.

In press

Arneth A, Lloyd J, Santruckova H, Bird MI, Grigoryev S, Kalaschnikov YN, Gleixner G and Schulze E-D. Response of central Siberian scots pine to soil water deficit and long-term trends in atmospheric CO₂ concentration. *Global Biogeochemical Cycles*.

Barker G, Badang D, Barton H, Beavitt P, Bird MI, Daly P, Doherty C, Gilbertson D, Glover I, Hunt C, Manser J, McLaren S, Paz V, Pyatt B, Reynolds T, Rose J, Rushworth G and Stephens M. The Niah Cave project: the second season of fieldwork. *The Sarawak Museum Journal*.

Bird MI. *Outside: The Life of CTJ Adamson* 1st edition. Adelaide, Crawford House Publishing.

Bird MI, Santruckova H, Arneth A, Lloyd JJ, Gleixner G and Schulze E-D. Inventories of carbon and isotopes on a latitude gradient through central Siberia. *Tellus Series B*.

Bird MI, Santruckova H, Lloyd JJ and Lawson, E. The isotopic composition of soil organic carbon on a latitude transect in western interior. *European Journal of Soil Science*.

Bird MI, Turney CSM, Fifield LK, Jones R, Palmer A, Cresswell R and Robertson S. Radiocarbon analysis of the early archaeological site of Nauwalabila I, Arnhemland, Australia: implications for sample suitability and stratigraphic integrity. *Quaternary Science Reviews*.

Bird M, Zhou Y, Carter J and Farquhar GD. Global-scale variations in the carbon-isotope composition of soil organic carbon in coarse-textured soils. In: *Proceedings of The 5th International Carbon Dioxide Conference*, Sendai, Japan.

Condon AG, Richards RA, Rebetzke GJ and Farquhar GD. Improving intrinsic water-use efficiency and crop yield. *Crop Science*.

Evans JR and Vogelmann TC. Linking light capture with CO₂ fixation: new methods enable integration from the chloroplast to the leaf. In: *Proceedings of PS2001: 12th International Congress on Photosynthesis*, Brisbane.

Fifield LK, Bird MI, Turney CSM, Hausladen PA, Santos GM, di Tada ML. Radiocarbon dating of the human occupation of Australia prior to 40 ka B.P. - successes and pitfalls. In: *Proceedings of The 17th International Radiocarbon Conference 2000*, Israel.

Gan KS, Wong SC and Farquhar GD. Oxygen isotope analysis of plant water without extraction procedure. In: *Handbook of Stable Isotope Analytical Techniques*, Volume 1. (Ed. Pier A. De Groot), Elsevier

Loveys Beth R, Tyerman SD and Loveys Brain R. Effect of different host plants on the growth of the root hemiparasite *Santalum acuminatum* (quandong). *Australian Journal of Experimental Agriculture*.

Mäkela A, Givnish TJ, Berninger F, Buckley TN, Farquhar GD and Hari, P. Challenges and opportunities of the opti-

mality approach in plant ecology. *Silva Fennica*.

Malik AI, Colmer TD, Lambers H, Setter TL and Schortemeyer M. Short-term waterlogging has long-term effects on growth and physiology of wheat. *New Phytologist*.

Masle J. High soil strength: mechanical forces at play on root morphogenesis and in root:shoot signalling. In: *Plant Roots: The Hidden Half* 1st edition (ed: Waisel). New York, Marcel Dekker Inc: 807-819.

Moreau S, Thomson RM, Kaiser BN, Trevaskis B, Guerinot ML, Udvardi MK, Puppo A, Day DA. GmZUPI encodes a symbiosis specific zinc transporter in soybean. *Journal of Biological Chemistry*.

Pate J and Watt M. Roots of *Banksia* spp. (Proteaceae) with special reference to functioning of their specialised proteoid root clusters. In: *Plant Roots: The Hidden Half* 1st edition (ed: Waisel). New York, Marcel Dekker Inc.

Rebetzke GJ, Condon AG, Richards RA and Farquhar GD. Selection for reduced carbon isotope discrimination increases aerial biomass and grain yield of rainfed bread wheat. *Crop Science*.

Santos, GM, Bird MI, Pillans B, Fifield LK, Alloway BV, Chappell J, Hausladen PA and Arneeth A. Radiocarbon dating of wood using different pre-treatment methods: Application to the chronology of the Rotoehu Ash, New Zealand. In: *Proceedings of The 17th International radiocarbon Conference 2000*, Israel.

Schortemeyer M, Atkin OK, McFarlane N and Evans, JR. N₂ fixation by *Acacia* species increases under elevated atmospheric CO₂. *Plant Cell and Environment*.

Turney CSM, Bird MI and Roberts RG. Elemental ¹³C at Allen's Cave, Nullarbor Plain, Australia: Quantifying post-depositional disturbance. *Journal of Quaternary Science*.

Turney CSM, Kershaw AP, Moss P, Bird MI, Fifield LK, Cresswell RG, Santos GM, di Tada ML, Hausladen PA and Zhou Y. Redating the onset of burning at Lynch's Crater (North Queensland): Implications for human settlement in Australia. *Journal of Quaternary Science*.

Ecosystem Dynamics

Published

Canadell J and Noble I. Changing metabolism of terrestrial ecosystems under global change. *Ecological Applications* **10**, 1551-1552.

Canny M. Embolisms and refilling in the maize leaf lamina, and the role of the protoxylem lacuna. *American Journal of Botany* **88(1)**: 47-51.

Canny M. Contributions to the debate on water transport. *American Journal of Botany* **88(1)**: 43-46.

Canny M, Huang C and McCully. The cohesion theory debate continues. *Trends in Plant Science* **6(10)**: 454-455.

Canny M, McCully M and Huang C. Cryo-scanning electron microscopy observations of vessel content during transpiration in walnut petioles. *Plant Physiology and Biochemistry* **39**: 555-563.

Facette M, McCully M, Shane M and Canny M. Measurements of the time to refill embolized vessels. *Plant Physiology and Biochemistry* **39**: 59-66.

Gilmore AM. Cell membranes: Intracellular pH and electrochemical potential. In: *Encyclopedia of Life Science* 1st edition (eds: multiple). New York, Nature Publishing Group: pp 1-8.

Gilmore AM. Xanthophyll cycle-dependent nonphotochemical quenching in photosystem II: Mechanistic insight gained from *Arabidopsis thaliana* L. mutants that lack violaxanthin deepoxidase activity and or lutein. *Photosynthesis Research* **67**: 87-99.

Gilmore AM and Yamamoto H. Time-resolution of the antheraxanthin- and delta-pH-dependent chlorophyll a fluorescence components associated with photosystem II energy dissipation in *Mantoniella squamate*. *Photochemistry and Photobiology* **74**: 291-302.

Matsubara S, Gilmore AM and Osmond C. Diurnal and acclimatory responses of violaxanthin and lutein epoxide in the Australian mistletoe *Amyema miquelii*. *Australian Journal of Plant Physiology* **28**: 793-800.

Noble IR. Role of terrestrial sequestration in meeting Kyoto targets. *APPEA Journal* 2001, 15-20.

Noble IR. and Scholes R. Sinks and the Kyoto protocol. *Climate Policy* **1**: 5-25.

Rascher U, Hütt M, Siebke K, Osmond C, Beck F and Lüttge U. Spatio-temporal variation in metabolism in a plant circadian rhythm: The biological clock as an assembly of coupled individual oscillators. *Proceedings of the National Academy of Sciences of the United States of America* **98**: 11801-11805.

Roderick M. On the use of thermodynamic methods to describe water relations in plants and soil. *Australian Journal of Plant Physiology* **28**: 729-742.

Roderick M and Berry S. Linking wood density with tree growth and environment: A theoretical analysis based on the motion of water. *New Phytologist* **149(3)**: 473-485.

Roderick M, Farquhar G, Berry S and Noble I. On the direct effect of clouds and atmospheric particles on the productivity and structure of vegetation. *Oecologia* **129**: 21-30.

Roxburgh S and Noble I. Terrestrial ecosystems. In: *Encyclopedia of Biodiversity* 1st edition (ed: Levin SA). San Diego, Academic Press: 637-646. Schimel DS House JI, Hibbard KA,

Ecosystem Dynamics continued

Bousquet P, Ciais P, Peylin P, Braswell BH, Apps MJ, Baker D, Bondeau A, Canadell J, Churkina G, Cramer W, Denning AS, Field CB, Friedlingstein P, Goodale C, Heimann M, Houghton RA, Melillo JM, Moore III B, Murdiyarso D, Noble I, Pacala SW, Prentice IC, Raupach MR, Rayner PJ, Scholes RJ.

Steffen WL & Wirth C. Recent patterns and mechanisms of carbon exchange by terrestrial ecosystems. *Nature* **414**: 169-172

Scholes RJ and Noble IR. Storing carbon on land. *Science* **294**: 1012-1013.

Walker S, Steel J, Rapson G, Roxburgh S, King W, Watkins A, Myers T, Keogh J, McQueen A and Wilson J. A chionochloa/sphagnum/cushion valley bog in East Otago, New Zealand. *New Zealand Journal of Ecology* **25(1)**: 39-52.

Wilson J and Roxburgh S. Intrinsic guild structure: determination from competition experiments. *Oikos* **92(1)**: 189-192.

In press

Ball MC. Interactive effects of salinity and irradiance on growth: implications for mangrove forest structure along salinity gradients. *Trees Structure and Function*.

Barker D and Adams III W. Utilisation and dissipation of absorbed energy in *Mesembryanthemum crystallinum* during salt-induced C₃ to CAM photosynthesis transition. *Functional Plant Biology*.

Barker D, Logan B, Verhoeven A, Smith S, Adams III W and Demmig-Adams B. Seasonal comparisons of photosystem II characteristics and leaf pigment content from sympatric C₃ and CAM species of *Yucca* (Agavaceae) growing naturally in the Mojave Desert. *Plant Cell and Environment* **25**: 1-10.

Barker D and Winter K. Photosynthetic response of tropical rain forest seedlings to nutrient amendment during gap creation. In: *Proceedings of PS2001: 12th*

International Congress on Photosynthesis, Brisbane.

Berry S and Roderick M. Estimating mixtures of leaf functional types using continental-scale satellite and climatic data. *Global Ecology and Biogeography*.

Berry S and Roderick M. CO₂ and land use effects on Australian vegetation over the last two centuries. *Australian Journal of Botany*.

Roderick M and Cochrane M. On the conservative nature of the leaf mass-area relationship. *Annals of Botany*.

Gilmore AM. Excess light stress: probing excitation dissipation mechanisms through global analysis of time- and wavelength resolved chlorophyll a fluorescence. In: *Chlorophyll Fluorescence: The Signature of Photosynthetic Efficiency* 1st edition (eds: G Papageorgiou and Govindjee). Dordrecht, Kluwer Academic Publishers.

Gilmore AM. Global fluorescence lifetime distribution analyses of PSII energy dissipation mechanisms at low physiological temperatures: xanthophyll photoprotection, photochemistry and photoinhibition. In: *Proceedings of PS2001: 12th International Congress on Photosynthesis*, Brisbane.

Hendrickson L, Ball M, Chow W, Furbank R, Osmond C and Donnelly C. Low morning temperature limits photosynthesis and growth in cool climate grapevines. In: *Proceedings of PS2001: 12th International Congress on Photosynthesis*, Brisbane.

Holm A, Cridland S and Roderick M. The use of time-integrated NDVI and rainfall to assess landscape degradation in the arid shrublands of Western Australia. *Remote Sensing of Environment*.

Lovelock C and Ball M. Influence of salinity on photosynthesis of halophytes. In: *Salinity: Environment - Plants - Molecules* 1st edition (eds: A Läuchli and U Lüttge).

Dordrecht, Kluwer Academic Publishers.

Matsubara S, Gilmore A, Ball M, Anderson J and Osmond C. Photoprotection under low temperatures: Effects by pigment arrangement in *Amyema miquelii*. In: *Proceedings of PS2001: 12th International Congress on Photosynthesis*, Brisbane.

Rascher U, Hütt M, Osmond C, Siebke K and Lüttge U. Spatio-temporal variation of photosynthetic activity during the endogenous circadian CAM rhythm of *Kalanchoë daigremontiana*: The biological clock as an assembly of coupled non-linear oscillators. In: *Proceedings of PS2001: 12th International Congress on Photosynthesis*, Brisbane.

Roderick M and Cochrane M. On the conservative nature of the leaf mass-area relationship. *Annals of Botany*.

Schöttler M, Kirchhoff H, Siebke K and Weis E. The photosynthetic electron transport in thylakoids of the facultative CAM plant *Mesembryanthemum crystallinum* (L.). In: *Proceedings of PS2001: 12th International Congress on Photosynthesis*, Brisbane.

Siebke K, Ghannoum O, Conroy J and von Caemmerer S. Leaf temperature of C₄ grasses is increased in elevated CO₂ in a glasshouse. In: *Proceedings of PS2001: 12th International Congress on Photosynthesis*, Brisbane.

Electron Microscopy Unit

Published

Brink FJ, Withers RL, Norén L (2001) Nonstoichiometric, rutile-type, solid solutions in the Fe^{II}F₂-Fe^{III}OF System. *Journal of Solid State Chemistry* **161**: 31-37

Canny MJ, McCully ME, Huang CX 2001. Cryo-scanning electron microscopy observations of vessel content during transpiration in walnut petioles. Facts or artifacts? *Plant Physiology and Biochemistry*. **39**: 555-563.

Canny MJ, Huang CX, McCully ME 2001. The cohesion theory debate continues. *Trends in Plant Science*. **6(10)**: 454-455.

Heady RH (2001) A history of the wood anatomy of *Callitris*. Pp20-29 In: *Perfumed Pineries: Environmental History of Callitris Forests*. Ed J Dargavel, D Hert, B Libbis. Published by CRES, in association with Australian Forest History Society and Dept Physical Geography, Macquarie Univ. ISBN086740 524 4

Melcher PJ, Goldstein G, Meinzer FC, Yount DE, Jones T, Holbrook NM, Huang CX. 2001. Water relations of coastal and estuarine *Rhizophora mangle*: xylem pressure potential and dynamics of embolism formation and repair. *Oecologia*. **126**: 182-192.

Sangster AG, Hodson, MJ Huang CX 2001. X-ray microanalytical studies of mineral composition in cell walls of needle tissues of American Larch [*Larix laricina* (Du Roi) K. Koch] and European Larch [*L. decidua* (L.) Mill.]. In "L'arbre 2000 The Tree" (ed. M. Labrecque) pp. 160-167. 4th International Symposium on the Tree, Montreal Botanic Garden. Isabelle Quentin Press, Montreal, Canada.

Genomic Interactions

Published

Djordejevic MA, Mathesius U, Weinman JJ and Rolfe BG. Two overlapping pathways for triggering nodule development in white clover. In: *Biology of plant-microbe interactions*, Volume II (eds: de Witt PJGM, Bisseling T and Stiekemea WJ). International Society for plant-microbe interactions, St Paul Minnesota.

Imin N, Kerim T, Weinman J and Rolfe B. Characterisation of rice anther proteins expressed at the young microspore stage. *Proteomics* **1**: 1149-1161.

Lawson C and Smith R. Protecting genetic materials and genetic information: A

case study of guthrie cards in Victoria. *Journal of Law and Medicine* **9**: 1-18.

Mathesius U. Flavonoids induced in cells undergoing nodule organogenesis in white clover are regulators of auxin breakdown by peroxidase. *Journal of Experimental Botany* **52**: 419-426.

Mathesius U, Keijzers G, Natera S, Weinman J, Djordjevic M and Rolfe B. Establishment of a root proteome reference map for the model legume *Medicago truncatula* using the expressed sequence tag database for peptide mass fingerprinting. *Proteomics* **1**: 1424-1440.

Morris A and Djordjevic M. Proteome analysis of cultivar specific interactions between *Rhizobium leguminosarum* biovar *trifolii* and subterranean clover cultivar Woogenellup. *Electrophoresis* **22**: 586-598.

Perrine F, Prayitno J, Weinman J, Dazzo F and Rolfe B. *Rhizobium* plasmids are involved in the inhibition or stimulation of rice growth and development. *Australian Journal of Plant Physiology* **28**: 1-15.

Rofe BG and Weinman JJ. Rice Cultivars and endophytic bacteria. In *a Rural Industries Research and Development Corporation Publication*, ISBN 0 642 58394 3.

Weiller G, Djordjevic M, Caraux G, Chen H and Weinman J. A specialised proteomic database for comparing MALDI-MS data of tryptic peptides with corresponding sequence database segments proteomics. *Proteomics* **1**: 1489-1494.

Yanni Y, Rizk R, Abd El Fattah F, Squartini A, Corich V, Giacomini A, de Bruijn F, Rademaker J, Maya-Flores J, Ostrom P, Vega-Hernandez M, Hollingsworth R, Martinez-Molina E, Mateos P, Velazquez E, Wopereis J, Triplett E, Umali-Garcia M, Anarna J, Rolfe B, Ladha J, Hill J, Mujoo R, Ng P and Dazzo F. The beneficial plant growth-promoting association of *Rhizobium leguminosarum* bv. *trifolii* with rice roots.

Australian Journal of Plant Physiology **28(9)**: 845-870.

In press

Djordejevic MA, Natera SH, Chen HC, Weiller G, Menzel C, Van Noorden G, Weinman J, Taylor S, Guo K and Rolfe BG. Proteome analysis of *Sinorhizobium meliloti*.

Roddam L, Henderson W and Djordjevic M. Two novel chromosomal loci influence cultivar-specific nodulation failure in the interaction between strain ANU794 and subterranean clover cultivar Woogenellup. *Functional Plant Biology*.

Molecular Genetics and Evolution

Chen XJ. Activity of the *Kluyveromyces lactis Mdr1* multidrug transporter is modulated by the Sit4 protein phosphatase. *Journal of Bacteriology* **183**: 3939-3948.

Clark-Walker GD and Chen XJ. Dual mutations reveal interactions between components of oxidative phosphorylation in *Kluyveromyces lactis*. *Genetics* **159**: 929-938.

Davy D, Campbell H, Fountain S, de Jong D and Crouch M. The flightless 1 protein colocalizes with actin- and microtubule-based structures in motile Swiss 3T3 fibroblasts: Evidence for the involvement of PI 3-kinase and Ras-related small GTPases. *Journal of Cell Science* **114(3)**: 549-562.

Grasso L, Hayward D, Trueman J, Hardie K, Janssens P and Ball E. The evolution of nuclear receptors: Evidence from the coral *Acropora*. *Molecular Phylogenetics and Evolution* **21(1)**: 93-102.

Hayward D, Catmull J, Reece-Hoyes J, Berghammer H, Dodd H, Hann S, Miller D and Ball E. Gene structure and larval expression of *cnx-2Am* from the coral *Acropora millepora*. *Development Genes and Evolution* **211**: 10-19.

Kitajima E, Kondo H, Mackenzie A, Rezende J, Gioria R, Gibbs A and Tamada T. Comparative cytopathology and immunocytochemistry of Japanese, Australian and Brazilian isolates of orchid fleck virus. *Journal of General Plant Pathology* **67(3)**: 231-237.

Patel N, Hayward D, Lall S, Pirkl N, DiPietro D and Ball E. Grasshopper hunchback expression reveals conserved and novel aspects of axis formation and segmentation. *Development* **128**: 3459-3472.

In press

Ball EE, Hayward DC, Catmull J, Reece-Hoyes JS, Hislop NR, Harrison PL and Miller DJ. Molecular control of development in the reef coral, *Acropora millepora*. *Proceedings 9th International Coral Reef Symposium*.

Ball EE, Hayward DC, Reece-Hoyes JS, Hislop NR, Samue G, Saint R, Harrison PL and Miller DJ. Coral development: from classical embryology to molecular control. *International Journal of Developmental Biology*.

Chen XJ. Isolation of mitochondrial mutants from the petite-negative yeast *Kluyveromyces lactis*. In: *Laboratory Manual on Nonconventional Yeasts* (eds: K Wolf, G Barth and K Breunig). Berlin, Springer-Verlag.

Zuo X, Clark-Walker GD and Chen XJ. The mitochondrial nucleoid protein, Mgm101p, of *Saccharomyces cerevisiae* is involved in the maintenance of + and ori/rep-devoid genomes but is not required for hypersuppressive -mtDNA. *Genetics*.

Molecular Plant Physiology

In press

Pike CS, Grieve J, Badger MR and Price GD (2001) Thermoprotective properties of small heat shock proteins from rice, tomato, and *Synechocystis* sp. PCC6803 over-

expressed in, and isolated from, *Escherichia coli*. *Aust. Journal of Plant Physiology* **28**: (In Press).

Maeda S, Badger MR, Price GD (2002) Novel gene products associated with NdhD3/D4-containing NDH-1 complexes are involved in photosynthetic CO₂ hydration in the cyanobacterium, *Synechococcus* sp. PCC7942. *Molecular Microbiology* (In press).

Badger MR, Hanson DT and Price GD (2002) Evolution and diversity of CO₂ concentrating mechanisms in cyanobacteria. *Functional Plant Biology* **29**: (In press).

Hanson DT, Andrews TJ, Badger MR (2002) Variability of the pyrenoid-based CO₂-concentrating mechanism in hornworks (Anthocerotophyta). *Functional Plant Biology* **29**: (In press).

Price GD, Maeda S, Omata T and Badger MR (2002) Modes of active inorganic carbon uptake in the cyanobacterium, *Synechococcus* sp. PCC7942. *Functional Plant Biology* **29**: (In Press).

Ghannoum O, von Caemmerer S, Conroy PJ (2001) Plant water use efficiency of 17 Australian NAD-ME and NADP-ME C₄ grasses at ambient and elevated CO₂ partial pressure. *Aust. J. Plant Physiol*, **28** (16) (in press)

Whitney SM, Andrews TJ, Plastome-encoded bacterial ribulose-1,5-bisphosphate carboxylase/oxygenase (RubisCO) supports photosynthesis and growth in tobacco. *Proc Natl Acad Sci USA*. (In press).

Lilley RM, Wang X-Q, Krausz E, Andrews TJ, Spectroscopic studies of chemiluminescence by Mn⁺⁺-activated Rubisco: Singlet oxygen is entirely absent and the emission spectrum differs between forms of Rubisco. *Proceedings of the XIIth International Congress on Photosynthesis*, CSIRO Publishing (In press).

Whitney SM, Andrews TJ, Bacterial Rubisco supports the photosynthetic growth of tobacco. *Proceedings of the XIIth International Congress on Photosynthesis*, CSIRO Publishing (In press).

Sharwood RE, Whitney SM, Andrews TJ, A comparison of the effectiveness of the promoters and 5' regions of two plastid genes in directing the synthesis of Rubisco small subunits in tobacco plastids. *Proceedings of the XIIth International Congress on Photosynthesis*, CSIRO Publishing. (In press).

Saska I, Whitney SM, Andrews TJ, Activation of Rubisco from non-green algae. *Proceedings of the XIIth International Congress on Photosynthesis*, CSIRO Publishing. (In press).

Pearce FG, Andrews TJ, Kane HJ, Whitney SM, A mutation in the Rubisco large subunit reduces the decline in activity during catalysis. *Proceedings of the XIIth International Congress on Photosynthesis*, CSIRO Publishing. (In press).

Emlyn-Jones D, Whitney SM, Price GD, Andrews TJ, Substitution of foreign Rubiscos in the cyanobacterium, *Synechococcus* PCC7942. *Proceedings of the XIIth International Congress on Photosynthesis*, CSIRO Publishing. (In press).

Siebke K, Ghannoum O, Conroy JP, von Caemmerer S (2001) Leaf temperature of C₄ grasses is increased in elevated CO₂ in a glasshouse. *Proceedings of the XIIth International Congress on Photosynthesis*, CSIRO Publishing (In press).

Ghannoum O, von Caemmerer S, Conroy JP (2001) Growth and water use efficiency of NAD-ME and NADP-ME C₄ grasses exposed to a drying soil. *Proceedings of the XIIth International Congress on Photosynthesis*, CSIRO

Publishing (In press).

McGinn P, Price GD, Badger MR (2002) Analysis of PSI and PSII driven electron transport during steady-state photosynthesis in the cyanobacterium *Synechococcus* PCC7942. Proceedings of the *XIIth International Congress on Photosynthesis*, CSIRO Publishing, in press

Franklin L, Badger MR. (2001) A comparison of photosynthetic electron transport rates in macroalgae measured by pulse amplitude chlorophyll fluorescence and mass spectrometry. *J. Phycology* (In press).

Leggat W, Marendy E, Baillie B, Whitney S, Ludwig M, Badger M and Yellowlees D. (2002) Dinoflagellate symbioses: strategies and adaptation for the acquisition of acquisition and fixation of inorganic carbon. *Functional Plant Biology* **29**: (In press).

Mauser H, King WA, Gready JE, Andrews TJ (2001) CO₂ fixation by Rubisco: computational dissection of the key steps of carboxylation, hydration, and C-C bond cleavage. *J. Amer. Chem. Soc.* **123**, 10821-10829

Lowke JJ, Collings AF, Braach-Maksvytis V, Pace R, Andrews TJ and Osmond B. (2001) Artificial photosynthesis to redress the global carbon dioxide balance? In "*Greenhouse Gas Control Technologies*" (eds Williams D, Durie R, McMullin P, Paulson C, Smith A), CSIRO Publishing, Melbourne, pp. 624-628

Photobioenergetics

Published

Anderson J. Does functional photosystem II complex have an oxygen channel? *Federation of European Biochemical Societies Letters*. **488**: 1-4.

Anderson J, Chow W, Park Y, Franklin L, Robinson S and van Hasselt P. Response of *Tradescantia albiflora* to growth irradi-

ance: Change versus changeability. *Photosynthesis Research*. **67**: 103-112.

Chow W. The photoinactivation of photosystem II in leaves: A personal perspective. *Journal of Photoscience* **8(2)**:43-53.

Edwards GE, Furbank RT, Hatch MD and Osmond CB. What does it take to be C₄. Lessons from the evolution of C₄ photosynthesis. *Plant Physiology* **125**:46-49.

Fischer G and Wydrzynski T. Isotope effects in FTIR difference spectra of the photosynthetic oxygen evolving catalytic site determined by ab initio calculations on model compounds. *Journal of Physical Chemistry B* **105**: 12894-12901.

Flexas J, Hendrickson L and Chow W. Photoinactivation of photosystem II in high light-acclimated grapevines. *Australian Journal of Plant Physiology* **28**: 755-764.

Förster B, Osmond CB and Boynton JE. Very high light resistant mutants of *Chlamydomonas reinhardtii*: responses of photosystem II, nonphotochemical quenching and xanthophyll pigments to light and CO₂. *Photosynthesis Research* **67**: 5-15.

Geijer P, Peterson S, Ahrling K, Deak Z and Styring S. Comparative studies of the S0 and S2 multiline electron paramagnetic resonance signals from the manganese cluster in Photosystem II. *Biochimica et Biophysica Acta* **1503**: 83-95.

Hillier W, Hendry G, Burnap R and Wydrzynski T. Substrate water exchange in photosystem II depends on the peripheral polypeptides. *Journal of Biological Chemistry* **276(50)**: 46917-46924.

Hillier W and Wydrzynski T. Oxygen ligand and exchange at metal sites - implications for the O₂ evolving mechanism of photosystem II. *Biochimica et Biophysica Acta* **1503**: 197-209.

Kim S, Lee C, Hope A and Chow W. Inhibition of Photosystems I and II and

Enhanced Back Flow of Photosystem I Electrons in Cucumber Leaf Discs Chilled in the Light. *Plant and Cell Physiology* **42(8)**: 842-848.

Lee H, Hong Y and Chow W. Photoinactivation of photosystem II complexes and photoprotection by non-functional neighbours in *Capsicum annuum* L. leaves. *Planta* **212**: 332-342.

Lowke J, Collings A, Braach-Maksvytis V, Pace R, Andrews TJ and Osmond C. Artificial photosynthesis to redress the global carbon dioxide balance. In: *Greenhouse Gas Control Technologies 1st edition* (eds: D Williams, R Durie, P McMullin, C Paulson and A Smith). Melbourne, CSIRO Publishing: 624-628.

Matsubara S, Gilmore A and Osmond CB. Diurnal and acclimatory responses of violaxanthin and lutein epoxide in the Australian mistletoe *Amyema miquelii*. *Australian Journal of Plant Physiology* **28**: 793-800.

Niyogi K, Shih C, Chow W, Pogson B, DellaPenna D and Bjorkman O. Photoprotection in a zeaxanthin- and lutein-deficient double mutant of *Arabidopsis*. *Photosynthesis Research* **67**: 139-145.

Rascher U, Hutt M, Siebke K, Osmond CB, Beck F and Lutttge U. Spatio-temporal variation in metabolism in a plant circadian rhythm: The biological clock as an assembly of coupled individual oscillators. *Proceedings of the National Academy of Sciences of the United States of America* **98**: 11801-11805.

Skotnicki, M, Selkirk P, Broady P, Adam K and Ninham J. Dispersal of the moss *Campylopus pyriformis* on geothermal ground near the summits of Mount Erebus and Mount Melbourne, Victoria Land, Antarctica. *Antarctic Science* **13(3)**: 280-285.

In press

Anderson J. Changing concepts about the distribution of photosystems I and II

Photobioenergetics continued

between grana-appressed and stroma-exposed thylakoid membranes.

Photosynthesis Research.

Anderson J. Structural/functional dynamics of photosystem II. In: *Proceedings of PS2001: 12th International Congress on Photosynthesis*, Brisbane.

Choi S, Jeong S, Jeong W, Kwon S, Chow W and Park Y. Chloroplast Cu/Zn-SOD is a highly sensitive site in cucumber leaves chilled in the light. *Planta*.

Chow W and Hope A. Mechanisms and physiological roles of proton movements in plant thylakoid membranes. In: *Handbook of Plant Growth. pH as a Master Variable in Plant Growth* 1st edition (ed: Z Rengel) New York, Marcel Dekker Inc.

Flexas J, Escalona J, Evain S, Gulias J, Moya I, Osmond CB and Medrano H. Steady-state chlorophyll fluorescence (Fs) measurements as a tool to follow variations of net CO₂ assimilation and stomatal conductance during water stress in C₃ plants. *Physiologia Plantarum*.

Flexas J, Escalona J, Evain S, Gulias J, Moya I, Osmond CB and Medrano H. Steady-state chlorophyll fluorescence (Fs) as an indicator of leaf photosynthesis and stomatal conductance under drought conditions. In: *Proceedings of PS2001: 12th International Congress on Photosynthesis*, Brisbane.

Forster B, Osmond CB and Boynton J. Very high light resistant mutants of *Chlamydomonas reinhardtii* with impaired PSII function: D1 protein dynamics, functional PSII and PSI centers and intersystem electron transport capacities. In: *Proceedings of PS2001: 12th International Congress on Photosynthesis*, Brisbane.

Hendrickson L, Ball M, Chow W, Furbank R, Osmond CB and Donnelly C. Low morning temperature limits photosynthesis and growth in cool climate grapevines. In: *Proceedings of PS2001: 12th International*

Congress on Photosynthesis, Brisbane.

Hendry G and Wydrzynski T. Evidence for the binding of two substrate water molecules in the S2 state of photosystem II. In: *Proceedings of PS2001: 12th International Congress on Photosynthesis*, Brisbane.

Lee H, Hong Y and Chow W. A last-ditch defence against high-light stress: Photoinactivated photosystem II complexes protect functional neighbours in *Capsicum annuum* L. leaves. In: *Proceedings of PS2001: 12th International Congress on Photosynthesis*, Brisbane.

Lee H, Hong Y and Chow W. Putative effects of pH in intra-chloroplast compartments on photoprotection of functional photosystem II complexes by photoinactivated neighbours and on recovery from photoinactivation in *Capsicum annuum* L. leaves. *Functional Plant Biology*.

Lowke JJ, Collings AF, Braach-Maksvytis V, Pace R, Andrews TJ and Osmond B. Artificial photosynthesis to redress the global carbon dioxide balance.

Matsubara S, Gilmore A, Chow W, Ball M, Anderson J and Osmond CB. Photoprotection under low temperatures: Effects by pigment arrangement in *Amyema miquelii*. In: *Proceedings of PS2001: 12th International Congress on Photosynthesis*, Brisbane.

Osmond CB and Park Y. Field portable imaging system for measurement of chlorophyll fluorescence quenching. In: *Air Pollution and Biotechnology in Plants* 1st edition (eds: K Omasa, H Saji, S Youseffian and N Kondo). Tokyo, Springer-Verlag.

Rascher U, Hutt M, Osmond CB, Siebke K and Luttge U. Spatio-temporal variation of photosynthetic activity during the endogenous circadian CAM rhythm of *Kalanchoe daigremontiana*: The biological clock as an assembly of coupled nonlinear oscillators. In: *Proceedings of*

PS2001: 12th International Congress on Photosynthesis, Brisbane.

Razeghifard M, Hay S and Wydrzynski T. De novo design and synthesis of polypeptides based on photosystem II. In: *Proceedings of PS2001: 12th International Congress on Photosynthesis*, Brisbane.

Smith P, Krausz, E, Masters V, Wydrzynski T, Peterson S, Styring S and Pace R. Low temperature optical – MCD and EPR studies on a fully active plant photosystem II complex containing 32 chl per reaction centre. In: *Proceedings of PS2001: 12th International Congress on Photosynthesis*, Brisbane.

Smith P, Peterson S, Masters V, Wydrzynski T, Styring S, Krausz E and Pace R. Magneto-optical measurements of the pigments in fully active photosystem II core complexes from plants. *Biochemistry*.

Plant Cell Biology

Published

Cleary AL. Plasma membrane-cell wall connections: Roles in mitosis and cytokinesis revealed by plasmolysis of *Tradescantia virginiana* leaf epidermal cells. *Protoplasma* **215**: 21-34.

Eckardt N, Araki T, Benning C, Cubas P, Goodrich J, Jacobsen S, Masson P, Nambara E, Simon R, Somerville S and Wasteneys GO. *Arabidopsis* research: 2001. *Plant Cell* **13**: 1973-1982.

Gunning BES. Membrane geometry of "open" prolamellar bodies. *Protoplasma* **215**: 4-15.

Hardham AR. Brian E.S. Gunning - on the occasion of his 65th birthday. *Protoplasma* **215**: 1-3.

Hardham AR. Cell biology of fungal infection of plants. In: *The Mycota: A Comprehensive Treatise on Fungi as Experimental Systems for Basic and Applied Research*, Volume VIII: Biology

of the Fungal Cell 1st edition (eds: RJ Howard and NAR Gow). Berlin, Springer-Verlag: 91-123.

Hardham AR. Functioning cells. In: *Biology 2nd* edition (eds: RB Knox, P Ladiges, B Evans and R Saint) Sydney, McGraw-Hill Book Company Australia: 70-96.

Hardham AR. Investigations of oomycete cell biology. In: *Molecular and Cellular Biology of Filamentous Fungi 1st* edition (ed: N Talbot). Oxford University Press: 127-155.

Hardham AR. The cell biology of *Phytophthora* pathogenicity. *Australasian Plant Pathology* **30**: 91-98.

John PCL, Mews M and Moore R. Cyclin/cdk complexes: their involvement in cell cycle progression and mitotic division. *Protoplasma* **216**: 119-142.

John PCL and Zhang K. Cytokinin control of cell proliferation in plant development. In: *The Plant Cell Cycle and its Interfaces 1st* edition (ed: D Francis). Sheffield, Sheffield Academic Press: 190-211.

Jones DA, Clements M, Sharma I and Mackenzie A. A new classification of *Caladenia* R.Br. (Orchidaceae). *Lindleyana* **13(9)**: 389-419.

Lane D, Wiedemeier A, Peng L, Hofte H, Vernhettes S, Desprez T, Hocart CH, Birch R, Baskin T, Burn JE, Arioli T, Betzner A and Williamson RE. Temperature-sensitive alleles of *RSW2* link the korrigan endo-1,4-beta-glucanase to cellulose synthesis and cytokinesis in *Arabidopsis*. *Plant Physiology* **126**: 278-288.

Leitch A, Lim K, Webb D and McFadden G. In situ hybridisation. In: *Plant Cell Biology 2nd* edition (eds: C Hawes and B Satiat-Jeunemaitre). Oxford University Press: 267-293.

Marshall JS, Ashton A, Govers F and Hardham AR. Isolation and characterisation of four genes encoding pyruvate, phosphate dikinase in the oomycete plant pathogen *Phytophthora cinnamomi*. *Current Genetics* **40**: 73-81.

Marshall JS, Wilkinson J, Moore T and Hardham AR. Structure and expression of the genes encoding proteins resident in large peripheral vesicles of *Phytophthora cinnamomi* zoospores. *Protoplasma* **215**: 226-239.

Shaw W, Muirhead A, Arioli T and Plazinski J. A glutathione-dependent formaldehyde dehydrogenase gene of symbiotic cyanobacterium *Anabaena azollae*. *Symbiosis* **30**: 41-55.

Sugimoto K, Williamson RE and Wasteneys GO. Wall architecture in the cellulose-deficient *rsw1* mutant of *Arabidopsis thaliana*: microfibrils but not microtubules lose their transverse alignment before microfibrils become unrecognizable in the mitotic and elongation zones of roots. *Protoplasma* **215**: 172-183.

Takemoto D, Doke N and Kawakita K. Characterization of elicitor-inducible tobacco genes isolated by differential hybridisation. *Journal of General Plant Pathology* **67**: 89-96.

Tantikanjana T, Yong J, Letham D, Griffith M, Hussain M, Ljung K, Sandberg G and Sindaresan V. Control of axillary bud initiation and shoot architecture in *Arabidopsis* through the SUPERSHOOT gene. *Genes and Development* **15**: 1577-1588.

Whittington A, Vugrek O, Wei K, Hasenbein N, Sugimoto K, Rashbrooke M and Wasteneys GO. MOR 1 is essential for organizing cortical microtubules in plants. *Nature* **411**: 610-613.

Williamson RE, Burn JE, Birch RJ, Baskin T, Arioli T, Betzner A and Cork AC. Morphology of *rsw1*, a cellulose deficient mutant of *Arabidopsis thaliana*. *Protoplasma* **215**: 116-127.

Williamson RE, Burn JE and Hocart CH. Cellulose synthesis: Mutational analysis and genomic perspectives using *Arabidopsis thaliana*. *Cellular and Molecular Life Sciences* **58**: 1475-1490.

In press
Ambikapathy J, Marshall JS, Hocart CH and Hardham AR. The role of proline in osmoregulation in *Phytophthora nicotianae*. *Fungal Genetics and Biology*.

Burn JE, Hocart CH, Birch RJ, Cork AC and Williamson RE. Functional analysis of the cellulose synthase genes *CesA1*, *CesA2* and *CesA3* in *Arabidopsis thaliana*. *Plant Physiology*.

In press

Cleary AL, Fowke L, Wang H and John P. The effect of ICK1, a plant cyclin dependent kinase inhibitor, on mitosis in living plant cells. *Plant Cell Reports*.

Clements M, Jones DA, Sharma I, Nightingale M, Garratt M, Fitzgerald K, Mackenzie A and Molloy B. Phylogenetic systematics of the diurdeae (orchidaceae) based on the its and 5.8s coding region of nuclear ribosomal DNA. *Lindleyana*.

Ellis J and Jones DA. Plant disease resistance genes. In: *Innate Immunity* (eds: A Ezekowitz and J Hoffman) 1st edition. Humana Press Inc.

Jones DA, Clements M, Sharma I and Mackenzie A. Nomenclature notes arising from study of the tribe diurdeae. *Orchadian*.

Wasteneys GO. Microtubule organization in the green kingdom: chaos or self order? *Journal of Cell Science*.

Visual Sciences

Published
Chahl J, Nagle M, Srinivasan M and Sobey P. A novel system for panoramic

video surveillance. Patent No 0715743, Europe.

Eckert M and Zeil J. Towards and ecology of motion vision. In: *Motion Vision: Computational, Neural and Ecological Constraints* 1st edition (eds: JM Zanker and J Zeil). Berlin, Springer-Verlag: 333-369.

Esch H, Zhang S, Srinivasan M and Tautz J. Honeybee dances communicate distances measured by optic flow. *Nature* **411**: 581-583.

Firth SI, Morgan IG, Boelen MK and CW Morgans, Localization of voltage-sensitive L-type calcium channels in the chicken retina. *Clinical and Experimental Ophthalmology* **29**: 183-187.

Fisher N and Zanker J. The directional tuning of the barber pole illusion. *Perception* **30**: 1321-1336.

Giurfa M, Zhang S, Jenett A, Menzel R and Srinivasan M. The concepts of "sameness" and "difference" in an insect. *Nature* **410**: 930-933.

Guez D, Suchail S, Gauthier M, Maleszka R and Belzunces L. Contrasting effects of Imidacloprid on habituation in 7-day and 8-day old honeybees. *Neurobiology of Learning and Memory* **76**: 183-191.

Ibbotson MR. Evidence for velocity-tuned and motion-sensitive descending neurons in the honeybee. *Proceedings of the Royal Society of London: Biological Sciences* **268**: 2195-2201.

Ibbotson MR and Price NSC. Spatiotemporal tuning of directional neurons in mammalian and avian pretectal nuclei: similarities of physiological properties. *Journal of Neurophysiology* **86**: 2621-2624.

Maddess T and Nagai Y. Discriminating isotrigran textures. *Vision Research* **41**: 3837-3860.

Maddess T, Severt WL and Stange G. Comparison of three tests using the frequency doubling illusion to diagnose glaucoma. *Clinical and Experimental Ophthalmology* **29**: 359-367.

Maleszka R and Helliwell P. Effect of juvenile hormone on short-term olfactory memory in young honeybees (*Apis mellifera*). *Hormones and Behavior* **40**: 403-408.

Megaw P, Morgan I and Boelen M. Vitreal dihydroxyphenylacetic acid (DOPAC) as an index of retinal dopamine release. *Journal of Neurochemistry* **76**: 1636-1644.

Miklos G and Maleszka R. Integrating molecular medicine with functional proteomics: Realities and expectations. *Proteomics* **1**: 30-41.

Miklos G and Maleszka R. Protein functions and biological contexts. *Proteomics* **1(2)**: 169-178.

Morgans C, Gaughwin P and Maleszka R. Expression of the $\alpha 1F$ calcium channel subunit by photoreceptors in the rat retina. *Molecular Vision* **7**: 202-209.

Nagai Y, Maddess T and Ankiewicz A. Discrete algebra on cellular automata and binary textures. *Memoirs of the Kokushikan University Center for Information Science* **22**: 51-64

Price NSC and Ibbotson MR. Pretectal neurons optimised for the detection of saccade-like movements of the visual image. *Journal of Neurophysiology* **85**: 1512-1521.

Price NSC and Ibbotson MR. Pretectal neurons responding to slow wide-field retinal motion: could they compensate for slow drift during fixation? *Clinical and Experimental Ophthalmology* **29**: 201-205.

Rose KA, Smith W, Morgan IG and Mitchell P. The increasing prevalence of Myopia: implications for Australia. *Clinical*

and Experimental Ophthalmology **29**: 116-120

Ryan J and Zanker J. What determines the perceived speed of dots moving within apertures? *Experimental Brain Research* **141**: 79-87.

Srinivasan M. Homing in on ant navigation. *Nature* **411**: 752-753.

Srinivasan M. Visual navigation: The eyes know where their owner is going. In: *Motion Vision: Computational, Neural and Ecological Constraints* 1st edition (eds: JM Zanker and J Zeil). Berlin, Springer-Verlag: 181-186.

Srinivasan M, Zhang S and Chahl J. Landing strategies in honeybees, and possible applications to autonomous airborne vehicles. *Biological Bulletin* **200**: 216-221.

Zanker J. Combining local motion signals: A computational study of segmentation and transparency. In: *Motion Vision: Computational, Neural and Ecological Constraints* 1st edition (eds: JM Zanker and J Zeil). Berlin, Springer-Verlag: 113-124.

Zanker J, Quenzer T and Fahle M. Perceptual deformation induced by visual motion. *Naturwissenschaften* **88**: 129-132.

Zanker J and Zeil J. *Motion Vision: Computational, Neural and Ecological Constraints* 1st edition (eds: JM Zanker and J Zeil). Berlin, Springer-Verlag: 397

Zanker J and Zeil J. Processing motion in the real world. In: *Motion Vision: Computational, Neural and Ecological Constraints* 1st edition (eds: JM Zanker and J Zeil). Berlin, Springer-Verlag: 1-9.

Zeil J and Hofmann M. Signals from 'Crabworld': cuticular reflections in a Fiddler crab colony. *Journal of Experimental Biology* **204**: 2561-2569

In press

Visual Sciences continued

Kucharski R and Maleszka R. Evaluation of differential gene expression during behavioural development in the honey bee using microarrays and northern blots. *Genome Biology*.

Kucharski R and Maleszka R. Molecular profiling of behavioural development: differential expression of mRNAs for inositol 1,4,5-trisphosphate 3-kinase isoforms in naive and experienced honeybees (*Apis mellifera*). *Molecular Brain Research*.

Price NSC and Ibbotson MR. Direction-selective neurons with long lasting after-responses: physiology and possible functions. *Journal of Neurophysiology*.

Rose KA, Morgan IG, Smith W and Mitchell P. The high heritability of myopia does not preclude rapid changes in prevalence. *Clinical and Experimental Ophthalmology*.

Srinivasan MV and Zhang SW. Motion Cues in Insect Vision and Navigation. In: *The Visual Neurosciences* (eds: LM Chalupa and JS Werner). MIT Press.

Srinivasan MV. Visual Flight Control and Navigation in Honeybees, and Applications to Robotics. In: *Neurotechnology for Biomimetic Robots* (eds: J Ayers, JL Davis and A Rudolph). MIT Press.

Zhang SW and Srinivasan MV. Visual perception and cognition in honeybees. In: *The Visual Neurosciences* (eds: LM Chalupa and JS Werner). MIT Press.

