

## CILR Research Publications 2006

Adams, Y., Freeman, C., Schwartz-Abiez, R., Ferro, V., **Parish, C.R.** and Andrews, K.T. (2006) Inhibition of *Plasmodium falciparum* growth *in vitro* and adhesion to chondroitin sulfate by the heparan sulfate mimetic, PI-88, and other sulfated oligosaccharides *Antimicrobial Agents Chemother.* **50(8)**: 2850-2852.

Altin, J.G. and **Parish, C.R.** (2006) Liposomal vaccines-targeting the delivery of antigen. *Methods.* **40(1)**: 39-52.

Banwell, M.G., Bezos, A., Burns, C., Kruszelnicki, I., **Parish, C.R.**, Su, S. and Sydnes, M.O. (2006) C8c-C15 monoseco-analogues of the phenanthroquinolizidine alkaloids julandine and cryptopleurine exhibiting potent anti-angiogenic properties. *Bioorganic and Medicinal Chemistry Letters.* **16(1)**: 181-185.

**Beveridge, C.A.**(2006) Axillary bud outgrowth: Sending a message. *Current Opinions in Plant Biology.* **9(1)**: 35-40.

**Bhalla, P.L.**(2006) Genetic engineering of wheat - current challenges and opportunities. *Trends in Biotechnology.* **24(7)**: 305-311. **Bhalla, P.L.**, Ottenhof, H.H. and **Singh, M.B.** (2006) Wheat transformation - an update of recent progress. *Euphytica.* **149(3)**: 353-366.

**Bhalla, P.L. and Singh, M.**(2006) Future directions for allergen immunotherapy. *Inflammation and Allergy- Drug Targets.* **5(1)**: 1-3. **Bhalla, P.L. and Singh, M.B.**(2006) Molecular control of stem cell maintenance in shoot apical meristem. *Plant Cell Reports.* **25(4)**: 249-256.

Birch, C.J., **Hanan, J.** and Thornby, D. (2006) Architectural modelling of maize under water stress. **In:** E. Humphreys, K. O'Keefe, N. Hutchins and R. Gill, (Eds.) *Water to Gold.*, Proc., Maize Association of Australia, 6th Triennial Conference, Griffith, NSW, 21-23 February 2006, Maize Association of Australia, Darlington Point, NSW pp 219-225.

Bodulovic, G. (2006) Is the European attitude to GM products suffocating African development? *Functional Plant Biology.* **32(12)**: 1069-1075. Brosnan, C., Mitter, N., Dietzgen, R., Waterhouse, P.M. and **Carroll, B.J.** (2006) Modulation of gene expression. PCT/AU2006/001402, lodged Sept 26, 2006 Bucciarelli, B., **Hanan, J.**, Palmquist, D., and Vance, C., A standardized method for analysis of *Medicago truncatula* phenotypic development. *Plant Physiology.* **142(1)**: 207-219.

**Djordjevic, M.A.**, and Buer, C. (2006) Is there gold at the top of the beanstalk? *Genome Biology.* **7**: 318. Dodd, I.C. and **Beveridge, C.A.** (2006) Xylem-borne cytokinins: still in search of a role? *Journal of Experimental Botany.* **57(1)**: 1-4

Dorr, G., **Hanan, J.**, Woods, N., Kleinmeulman, P., Adkins, S. and Noller, B. (2006) Simulating spray deposition on plant canopies within a wind tunnel. **In:** L. Alexander, S. Cooper, J. Cross, R. Glass, B. Magri, T. Robinson, D. Stock, B. Taylor, P. Walklate and J. van de Zande (Eds.) *International Advances in Pesticide Application Conference 2006 Aspects of Applied Biology.* **77(1)**: 395-403.

Dun, E., Ferguson, B. and **Beveridge, C.A.** (2006) Apical dominance and shoot branching. Divergent opinions or divergent mechanisms? *Plant Physiology*. **142(3)**: 812-819.

Estrada-Navarrete, G., Alvarado-Affantranger, X., Olivares, J.-E., Díaz, C., Santana, O., Murillo, E., Guillén, G., Sánchez-Guevara, N., Acosta, J., Quinto, C., Dongxue Li, D.-X., **Gresshoff, P.M.** and Sánchez, F. (2006) *Agrobacterium rhizogenes*-transformation of the genus Phaseolus: the tool for functional genomics is available. *Molecular Plant-Microbe Interactions*. **19(12)**: 1385-1393

Förster, B., **Mathesius, U.** and Pogson, B.P. (2006) Comparative proteomics of high light stress in the model alga *Chlamydomonas reinhardtii*. *Proteomics*. **6(15)**: 4309-4320.

Fusaro, A.F., Matthew, L., Smith, N.A., Curtin, S.J., Dedic-Hagan, J., Ellacott, G.A., Watson, J.M., Wang, M.B., Brosnan, C., **Carroll, B.J.** and Waterhouse, P.M. (2006) RNAi-inducing hairpin RNAs in plants act through the viral defence pathway. *EMBO Reports*. **7(11)**: 1168-1175.

Goffard, N. and **Weiller, G.F.** (2006) Expanding MapMan: application to legume genome arrays. *Bioinformatics*. **22(23)**: 2958-2959.

Haerizadeh, F., **Singh, M.B. and Bhalla, P.L.** (2006) Transcriptional repression distinguishes somatic and germ line lineages in a plant. *Science*. **313(5786)**: 496-499.

**Hanan, J.**, Bucciarelli, B. and Vance, C.P. (2006) Sharing phenotypic data: A coding system and a developmental model. **In:** U. Mathesius, E.P. Journet and L.W. Summer (Eds.) *The Medicago truncatula handbook*. ISBN 0-9754303-1-9.

<http://www.noble.org/MedicagoHandbook/pdf/SharingPhenotypicData.pdf> [370 KB PDF, external link]. Holmes, P., Farquharson, R., Hall, P.J. and **Rolfe, B.G.** (2006) Proteomic analysis of root meristems and the effects of acetohydroxyacid synthase-inhibiting herbicides in the root of *Medicago truncatula*. *Journal of Proteomic Research*. **5(9)**: 2309-2316.

Imin, N., Kerim, T., Weinman, J.J. and **Rolfe, B.G.** (2006) Low temperature treatment at the young microspore stage induces protein changes in rice anthers. *Molecular and Cellular Proteomics*. **5(2)**: 274-292.

Johnson, X., Breich, T., Dun, E., Goussot, M., Haurogné, K., **Beveridge, C.A.** and Rameau, C. (2006) Branching genes are conserved across species: Genes controlling a novel signal in pea are co-regulated by other long-distance signals. *Plant Physiology* **142(3)**: 1014-1026.

Kinkema, M., Scott, P. and **Gresshoff, P.M.** (2006) Legume nodulation: successful symbiosis through short- and long-distance signalling. *Functional Plant Biology*. **33(8)**: 770-785.

Krisantini S., Johnston, M., Williams, R.R. and **Beveridge, C.A.** (2006) Adventitious root formation in *Grevillea* (Proteaceae), an Australian native species. *Scientiae Horticulturae*. **107(2)**: 171-175.

Lim, G.T.T., Wang, G.-P., Hemming, M.N., Basuki, S., McGrath, D.J., **Carroll, B.J.**, Jones, D.A. (2006) Mapping the *I-3* gene for resistance to Fusarium wilt in tomato: application of an

*I-3* marker in tomato improvement and progress towards the cloning of *I-3*. *Australian Plant Pathology*. **35(6)**: 671-680.

Manderson, A.P., Botto, M., Walport, M.J., Goodnow, C.C. and **Parish, C.R.** (2006) A novel mechanism for complement activation at the surface of B cells following antigen binding. *Journal of Immunology*. **177(8)**: 5155-5162.

Manson, D.G., **Hanan, J.**, Hunt, M., Bristow, M., Erskine, P.D., Lamb, D. and Schmidt, S. (2006) Modelling predicts positive and negative interactions between three Australian tropical tree species in monoculture and binary mixture. *Forest Ecology and Management*. **233(2-3)**: 315-323.

Morris A.C. and **Djordjevic M.A.** (2006) The *Rhizobium leguminosarum* biovar *trifolii* ANU794 induces novel developmental responses on the subterranean clover cultivar *Woogenellup*. *Molecular Plant-Microbe Interactions*. **19(5)**: 471-479

Mulwa, R.M.S. and **Bhalla, P.L.** (2006) *In vitro* plant regeneration from immature seed cotyledon explants of macadamia (*Macadamia tetraphylla* L). *Plant Cell Reports*. **25(12)**: 1281-1286.

Nolan, K.E., Saeed, N.A. and **Rose, R.J.** (2006) The stress kinase gene *MtSK1* in *Medicago truncatula* with particular reference to somatic embryogenesis. *Plant Cell Reports*. **25(7)**: 711-722.

Okada, T., **Bhalla, P.L. and Singh, M.B.** (2006) Expressed sequence tag analysis of *Lilium longiflorum* generative cells. *Plant Cell Physiology*. **47(6)**: 698-705

Okada, T., **Singh, M.B. and Bhalla, P.L.** (2006) Histone H3 variants in male gametic cells of lily and H3 methylation in mature pollen. *Plant Molecular Biology*. **62(4-5)**: 503-512.

**Parish, C.R.** (2006) The role of heparan sulfate in inflammation. *Nature Review Immunology*. **6(9)**: 633-643.

Prayitno, J., Imin, N., **Rolfe, B.G. and Mathesius, U.** (2006) Identification of ethylene-mediated protein changes during nodulation in *Medicago truncatula* using proteomic analysis. *Journal of Proteomic Research*. **5(11)**: 3084-3095.

Prayitno, J., **Rolfe, B.G. and Mathesius, U.** (2006) The ethylene insensitive *sickle* mutant of *Medicago truncatula* shows altered auxin transport regulation during nodulation. *Plant Physiology*. **142(1)**: 168-180.

Renton, M., Thornby, D. and **Hanan, J.** (2006) Canonical modelling: An approach for intermediate level simulation of carbon allocation in functional structural models. **In:** J. Vos, L.F.M. Marcelis, P.H.B. de Visser, P.C. Struik and J.B. Evers (Eds.) *Functional-Structural Plant Modelling in Crop Production*. Springer: Dordrecht, Netherlands, pp 151-164.

**Rose, R.J.**, Fitter, J.T., McCurdy, D. and Sheahan, M.B. (2006) Mitochondrial somatic genetics and homeotic effects on flowering. **In:** J.A.T. da Silva (Ed.) *Floriculture, Ornamental and Plant Biotechnology. Volume 1: Structure, Metabolism, Development, Physiology and Genetics*. Global Science Books: UK, pp 210-215.

**Rose, R.J.**, Wang, X-D., Nolan, K.E. and **Rolfe, B.G.** (2006) Root meristems in *Medicago truncatula* tissue culture arise from vascular-derived procambial-like cells in a process regulated by ethylene. *Journal of Experimental Botany*. **57(10)**: 2227-2235.

Sandal, N., Petersen, T.R., Murray, J., Umehara, Y., Karas, B., Yano, K., Kumagai, H., Yoshikawa, M., Saito, K., Hayashi, M., Murakami, Y., Wang, X., Hakoyama, T., Imaizumi-Anraku, H., Sato, S., Kato, T., Chen, W., Hossain, M.S., Shibata, S., Wang, T., Yokota, K., Larsen, K., Kanamori, N., Madsen, E., Radutoiu, S., Madsen, L.H., Radu, T.G., Krusell, L., Ooki, Y., Banba, M., Betti, M., Rispaill, N., Skøt, L., Tuck, E., Perry, J., Yoshida, S., Vickers, K., Pike, J., Mulder, L., Charpentier, M., Müller, J., Ohtomo, R., Kojima, T., Ando, S., Marquez, A.J., **Gresshoff, P.M.**, Harada, K., Webb, J., Hata, S., Suganuma, N., Kouchi, H., Kawasaki, S., Tabata, S., Hayashi, M., Parniske, M., Szczyglowski, K., Kawaguchi, M. and Stougaard, J. (2006) Genetics of symbiosis in *Lotus japonicus*: recombinant inbred lines, comparative genetic maps and map position of 35 symbiotic loci. *Molecular Plant Microbe Interactions*. **19(1)**: 80-91.

**Singh, M.B. and Bhalla, P.L.** (2006) Plant stem cells carve their own niche. *Trends in Plant Sciences*. **11(5)**: 241-246. **Singh, M.B. and Bhalla, P.L.** (2006) Recombinant expression systems for allergen vaccines. *Inflammation and Allergy - Drug Targets*. **5(1)**: 53-59.

Steele, E.J., Lindley, R.A., Wen, J. and **Weiller, G.F.** (2006) Computational analyses show A-to-G mutations correlate with nascent mRNA hairpins at somatic hypermutation hotspots. *DNA Repair*. **5(11)**: 1346-1363

van Noorden, G.E., Ross, J.J, Reid, J.B., **Rolfe, B.G. and Mathesius, U.** (2006) Defective long distance auxin transport regulation in the *Medicago truncatula* super numeric nodulation mutant. *Plant Physiology*. **140(4)**: 1494-1506.

Vickers, C.E., Xue, G.P. and **Gresshoff, P.M.** (2006) A novel *cis*-acting element, ESP, contributes to high-level endosperm-specific expression in an oat globulin promoter. *Plant Molecular Biology*. **62(1-2)**: 195-214.

Wang, Y-H. and **Bhalla, P.L.** (2006) Plant regeneration from cell suspensions initiated from leaf- and root-derived calli of the Australian ornamental plant *Scaevola aemula*. *Propagation of Ornamental Plants*. **6(2)**: 55-60.

Wasson, A.P., Pellerone, F.I. and **Mathesius, U.** (2006) Silencing the flavonoid pathway in *Medicago truncatula* inhibits root nodule formation and prevents auxin transport regulation by rhizobia. *Plant Cell*. **18(7)**: 1617-1629. (This paper is accompanied by an editorial in this issue *Plant Cell* **18(7)**: 1539-1540.)

Williams, S.J. and **Gresshoff, P.M.** (2006) The good oil. *Australasian Science* **November/December**: 34-36. Zhang, K., McKinlay, C., Hocart, C.H. and **Djordjevic, M.A.** (2006) The *Medicago truncatula* small protein proteome and peptidome. *Journal of Proteome Research*. **5(12)**: 3355-3367.