

POSTERS

Posters are available for viewing in Great Halls 3 & 4 of the Brisbane Convention and Exhibition Centre from 10:15 on Wednesday, 5 October through to 14:15 on Friday, 7 October. All posters are on display for three days (Wednesday through to Friday).

Posters will be attended by the presenting author from 13:30 to 14:30 on both Wednesday and Thursday, and from 13:15 to 14:15 on Friday. The middle of the poster number determines the day of the presentation.

Posters 001 – 021 Plant Cell and Developmental Biology and Genetics

Posters 022 – 040 Plant Physiology and Ecology

Posters 041 – 047 Developmental, Stem Cell and Regenerative Biology

Posters 048 – 075 Proteins and Proteomics

Posters 076 – 083 Genomes and Bioinformatics

Posters 084 – 101 Cell Biology

Posters 102 – 108 Cell Signalling

Posters 109 – 118 Biochemistry and Metabolism

Posters 119 – 136 Late Posters

PLANT CELL AND DEVELOPMENTAL BIOLOGY AND GENETICS

Posters 001 - 021

POS-WED-001 13:30 - 14:30

QTL analysis of the stay-green trait using a recombinant inbred line population in sorghum

Wacera, F. and **Sakamoto, W.** (Japan)

POS-THU-002 13:30 - 14:30

Molecular and phenotypic characterization of vitamin C enriched rice

Broad, R.B., Bonneau, J.P., Hellens, R.P., Roden, S.M. and Johnson, A.A.T. (Australia)

POS-FRI-003 13:15 - 14:15

Two phosphoethanolamine methyltransferases synergistically regulate root development and fertility in Arabidopsis

Chen, W., Salari, H., Jost, R., Berkowitz, O. and Masle, J. (Australia)

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POS-WED-004 13:30 - 14:30

Functional characterisation of gibberellic acid in soybean (*Glycine max*) nodulation

Chu, X.T., Hayashi, S., Su, H.N., Zhang, M.B., Hastwell, A.H., Tarkowaka, D., Gresshoff, P.M. and Ferguson, B.J. (Australia, China and Czech Republic)

POS-THU-005 13:30 - 14:30

Induction of compression wood blocks development of spiral grain in radiata pine

Thomas, J., Dijkstra, S. and **Collings, D.** (New Zealand and Australia)

POS-FRI-006 13:15 - 14:15

Characterization and functional analysis of calmodulin binding receptor-like cytoplasmic kinase 3, CRCK3 in *Arabidopsis thaliana* (L) Heynh

Dang, T., Trusov, Y. and Botella, J. (Australia)

POS-WED-007 13:30 - 14:30

Role of LEUNIG and LEUNIG_HOMOLOG in regulating early embryonic patterning in Arabidopsis

Golz, J.F. and Lee, J.E. (Australia and Sweden)

POS-THU-008 13:30 - 14:30

Allelic variation in grapevine HKT contributes to differential leaf sodium exclusion

Henderson, S.W., Dunlevy, J., Watkins, J., Hooper, L., Walker, R.R., Tyerman, S.D., Hrmova, M., Walker, A.R. and Gilliam, M. (Australia)

POS-WED-009 13:30 - 14:30

Circadian clock regulation of innate immunity in plants

Ingle, R.A., Muchapirei, C., Joseph, R., Stoker, C., Denby, K.J. and Roden, L.C. (South Africa and UK)

POS-WED-010 13:30 - 14:30

The single evolutionary origin of chlorinated auxin provides a phylogenetically informative trait in the Fabaceae

Lam, H.K., McAdam, S.A.M., McAdam, E.L. and Ross, J.J. (Australia)

POS-THU-011 13:30 - 14:30

Identification of regulatory genes controlling cell wall invertase expression in Arabidopsis reproductive organs

Li, J., Eamens, A.L. and Ruan, Y.-L. (Australia)

POSTERS

POS-FRI-012 13:15 - 14:15

Wall ingrowth deposition in phloem parenchyma transfer cells of *Arabidopsis* is a novel heteroblastic trait under control of the *miR156/SPL* regulatory module

Nguyen, T.T.S., Greaves, T. and McCurdy, D.W. (Australia)

POS-WED-013 13:30 - 14:30

The key drivers of cyclotide production in butterfly pea

Oguis, G.K., Gilding, E.K., Poth, A., Jackson, M.A. and Craik, D.J. (Australia)

POS-THU-014 13:30 - 14:30

Rapid methylation of transgenes upon plant transformation - a methodology

Philips, J.G., Dudley, K.J., Waterhouse, P.M. and Hellens, R.P. (Australia)

POS-FRI-015 13:15 - 14:15

Synergistic roles of three rice (*Oryza sativa*) *ERECTA*-like genes in the regulation of floral organ identity and spikelet fertility

Qiu, D., Mieulet, D., Peng, K., Guiderdoni, E. and Masle, J. (Australia and France)

POS-WED-016 13:30 - 14:30

Developing rice as a production system for cyclic therapeutic peptides

Qu, H., Jackson, M.A., Gilding, E.K. and Craik, D. (Australia)

POS-THU-017 13:30 - 14:30

Interactions between ethylene, gibberellins, and brassinosteroids in the development of rhizobial and mycorrhizal symbioses of pea

Reid, J.B., Foo, E., McAdam, E.L. and Weller, J.L. (Australia)

POS-FRI-018 13:15 - 14:15

Developing plants as biofactories for re-engineered cyclic peptides

Smithies, B.J., Jackson, M.A., Huang, Y.H., Gilding, E.K. and Craik, D.J. (Australia)

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POS-WED-019 13:30 - 14:30

A calmodulin-like protein regulates FLG22-induced plasmodesmal closure and innate immune responses to bacteria

Xu, B., Cheval, C., Laohavisit, A., Hocking, B., Chiasson, D., Shirasu, K., Faulkner, C. and Gilliam, M. (Australia, United Kingdom and Japan)

POS-THU-020 13:30 - 14:30

The effect of target RNA on small RNA accumulation in plants

Zhang, D.A., Wu, Q., Smith, N., Zhang, R. and Wang, M.B. (Australia and China)

POS-FRI-021 13:15 - 14:15

Functional analysis of genes involved in the regulation of soybean nodulation

Zhang, M.G., Tollenaere, A., Ho, S., Hastwell, A.H., Su, H.N., Chu, X.T., Li, D.X., Gresshoff, P.M. and Ferguson, B.J. (Australia and China)

PLANT PHYSIOLOGY AND ECOLOGY

Posters 022 - 040

POS-WED-022 13:30 - 14:30

Elevated SA signalling in wheat reduced the abundance of archaea and nitrogen cycling genes in the rhizosphere in a soil dependent manner

Liu, H., Carvalhais, L.C., Dennis, P.G. and Schenk, P.M. (Australia)

POS-THU-023 13:30 - 14:30

Effect of induced systemic resistance in grape berries against postharvest gray mould caused by *Botrytis cinerea*

Errampalli, D. (Canada)

POS-FRI-024 13:15 - 14:15

Functional analysis of extrafloral nectaries and nectar of Australian native wild cottons

Fabian, B., Atwell, B. and Hughes, L. (Australia)

POS-WED-025 13:30 - 14:30

Foliar nutrition and metal accumulation in two sympatric tree species endemic to northeastern Australia

Fernando, D.R., Green, P.T. and Marshall, A.T. (Australia)

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POS-THU-026 13:30 - 14:30

Intraspecific differences in oxidative stress sensitivity of tomato

Seng, K., Burritt, D.J., Morley-Bunker, M. and **Hofmann, R.W.** (New Zealand)

POS-FRI-027 13:15 - 14:15

Interactions between drought stress and canker pathogen (*Quambalaria coyrecup*) in marri (*Corymbia calophylla*): linking physiological performance, biochemical defence and disease severity

Hossain, M., Veneklaas, E., Hardy, G. and Poot, P. (Australia)

POS-WED-028 13:30 - 14:30

Characterisation of the low affinity ammonium transporters AMF in maize

Li, W., Dechorgnat, J., Tyerman, S.D. and Kaiser, B.N. (Australia)

POS-THU-029 13:30 - 14:30

Betalain production associated with altered sodium distribution in the New Zealand iceplant, *Disphyma australe*
Gould, K.S., Jain, G. and **Karl, T.** (New Zealand)

POS-FRI-030 13:15 - 14:15

Synchronisation of changes in maize growth and hormone levels (abscisic acid and ethylene) during soil drying

Li, X., Wilkinson, S., Forde, B. and Davies, W. (United Kingdom and Australia)

POS-WED-031 13:30 - 14:30

Seasonal water relations of four co-occurring species in a bushland fragment in Western Australia

Pires, R.N., Drake, P., Poot, P. and Veneklaas, E.J. (Australia)

POS-THU-032 13:30 - 14:30

Activity-based protein profiling of hydrolytic enzymes induced by gibberellic acid in aleurone layers isolated from commercial malting barley grain

Daneri-Castro, S.N., Chandrasekar, B., Grosse-Holz, F.M., Van Der Hoorn, R.A.L. and **Roberts, T.H.** (Australia and UK)

POS-FRI-033 13:15 - 14:15

Getting to the root of salt tolerance in the model cereal crop, barley

Shelden, M.C. and Tyerman, S.D. (Australia)

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POS-WED-034 13:30 - 14:30

Online tool to predict wheat leaf photosynthetic traits from hyperspectral leaf reflectance

Silva-Perez, V., Ivakov, A., Evans, J.R., Furbank, R.T. and Condon, A.G. (Australia)

POS-THU-035 13:30 - 14:30

Identification of beneficial microbes on the phyllosphere of *Arabidopsis thaliana* that inhibit the spread of *Alternaria brassiciola*

Singh, E., Sharifah, F., Pieterse, C., Schenk, P. and Costa Carvahais, L. (Australia and The Netherlands)

POS-FRI-036 13:15 - 14:15

Function of AMF putative ammonium transport proteins in *Arabidopsis thaliana*

Situmorang, A., Tyerman, S.D., Shelden, M. and Kaiser, B.K. (Australia)

POS-WED-037 13:30 - 14:30

Effects of temperature on seedling root traits - testing a new high-throughput phenotyping system in wheat

Vazquez-Carrasquer, V., Christopher, J.T. and Chenu, K. (Australia)

POS-THU-038 13:30 - 14:30

Variations in root architecture and morphology of two wheat genotypes with contrasting phosphorus efficiency

Nguyen, L. and Stangoulis, J. (Australia)

POS-FRI-039 13:15 - 14:15

Physiological intra-specific variation to elevated CO₂ and water limitation in *Eucalyptus grandis* - where do "winners" come from?

Wesolowski, A., Pfautsch, S., Resco De Dios, V., Tjoelker, M.G. and Tissue, D.T. (Australia and Spain)

POS-WED-040 13:30 - 14:30

Assessing correlations between leaf and root traits of *Prunus* rootstocks under water deficit and salinity stress

Zhou, S.X., Edwards, E. and Walker, R. (Australia)

POSTERS

DEVELOPMENTAL, STEM CELL AND REGENERATIVE BIOLOGY

Posters 041 – 047

POS-THU-041 13:30 - 14:30

SNAI1 expression is up-regulated in colorectal cancer and correlates with intestinal stem cell markers

Akhtar, R., Horvay, K., Jarde, T., Kass, L., Carne, P., Oliva, K., Hime, G.R., McMurrick, P.J. and Abud, H.E. (Australia)

POS-FRI-042 13:15 - 14:15

Characterisation of the role of *Polysystin-1* during embryonic lymphangiogenesis

Chau, T.C.Y., Baek, S., Coxam, B., Skoczylas, R., Francois, M. and Hogan, B.M. (Australia)

POS-WED-043 13:30 - 14:30

Tob1 and Tob2 mark distinct RNA processing granules in differentiating lens fibre cells

Perez, R.C., Familiari, M., Martinez, G., Lovicu, F., Hime, G. and **de longh, R.U.** (Australia)

POS-THU-044 13:30 - 14:30

Origin of vascular progenitors driving melanoma angiogenesis *in vivo*

Donovan, P., Patel, J. and Khosrotehrani, K. (Australia)

POS-FRI-045 13:15 - 14:15

Transcriptional regulation of NFIX by NFIA/B drives late gliogenesis in the developing spinal cord

Horne, E., Harris, L., Bunt, J. and Piper, M. (Australia)

POS-WED-046 13:30 - 14:30

Usp9x-deficiency disrupts the morphological development of the postnatal hippocampal dentate gyrus

Oishi, S., Premarathne, S., Harvey, T., Wood, S. and Piper, M. (Australia)

POS-THU-047 13:30 - 14:30

Proteoglycans in human mesenchymal stem cell neurogenesis

Yu, C., Okolicsanyi, R.K., Oikari, L.E., Griffiths, L.R. and Haupt, L.M. (Australia)

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PROTEINS AND PROTEOMICS

Posters 048 – 075

POS-FRI-048 13:15 - 14:15

Can mCherry or ZsGreen1 fusion proteins affect Nullbasic's antiviral activity in CD4+ cells

Rozario, P., Jin, H. and Harrich, D. (Australia)

POS-WED-049 13:30 - 14:30

Towards the expression of a cellulose synthase-like F (CSLF) protein, responsible for the synthesis of mixed linkage β -glucan, in a microbial model system

Bain, M., Oehme, D., Bacic, T. and Doblin, M. (Australia)

POS-THU-050 13:30 - 14:30

The solution structure of Sr33 challenges paradigms for coil-coil domain dimerization in plant NLR immunity receptors

Casey, L.W., Bentham, A., Lavrencic, P., Cesari, S., Mark, A.E., Anderson, P., Dodds, P.N., Mobli, M., Kobe, B. and Williams, S.W. (Australia)

POS-FRI-051 13:15 - 14:15

Potent neuroprotection after stroke afforded by a double-knot spider toxin that inhibits acid-sensing ion channel 1a

Chassagnon, I.R., McCarthy, C.A., Chin, Y.K.Y., Pineda, S.S., Keramidas, A., Mobli, M., Lynch, J.W., Widdop, R.E., Rash, L.D. and King, G.F. (Australia)

POS-WED-052 13:30 - 14:30

Potent, broad-spectrum serine protease inhibition achieved by a simplified beta-sheet motif

Chen, X., Riley, B., De Veer, S.J., Hoke, D., Haeften, J.V., Leahy, D., Swedberg, J.E., Brattsand, M., Buckley, A.M. and Harris, J.M. (Australia and Sweden)

POS-THU-053 13:30 - 14:30

Development of *Ov*-GRN-1 fragment as a wound healing agent

Dastpeyman, M., Bansal, P., Smount, M., Wilson, D., Smith, N., Loukas, A. and Daly, N. (Australia)

POS-FRI-054 13:15 - 14:15

Interactions of phosphoinositides with neuronal

Munc18a/Syntaxin1a in vesicle trafficking

Hu, S.H., Jarrott, R.J., Christie, M.P., Livingstone, E., King, K.J., Whitten, A.E., Collins, B.M. and Martin, J.L. (Australia)

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POS-WED-055 13:30 - 14:30

New crystal structures of the catalytic subunit of *Arabidopsis thaliana* acetohydroxyacid synthase reveal new insights in the mechanism of inhibition of commercial herbicides

Garcia, M.D., Wang, J.-G., Nouwens, A., Lonhienne, T. and Guddat, L.W. (Australia and China)

POS-THU-056 13:30 - 14:30

6-oxopurine phosphoribosyltransferase as an antimalarial drug target

Guddat, L.W., Keough, D.T., Naesens, L., Chavchich, M., Edstein, M., Rejman, D. and Hockova, D. (Australia, Belgium and Czech Republic)

POS-FRI-057 13:15 - 14:15

Reconstruction of a thermostable cytochrome P450 omega-fatty acide hydroxylase

Harris, K.H., Gumulya, Y. and Gillam, E.M. (Australia)

POS-WED-058 13:30 - 14:30

Structural characterisation of trimeric toxins from Australian snake venoms

Harrison, J.A., Kelso, C., Padula, M.P., Nicholson, G.M. and Beck, J.L. (Australia)

POS-THU-059 13:30 - 14:30

Structural characterisation of eukaryotic CAD complex

Jeon, Y.J., Landsberg, M.J., Ross, I., Hankamer, B. and Kobe, B. (Australia)

POS-FRI-060 13:15 - 14:15

Structural studies of the interaction of gating modifier toxins with voltage-gated sodium channels

Jiang, Y., Chin, Y. and King, G. (Australia)

POS-WED-061 13:30 - 14:30

Engineering a C-mannosylation pathway into *Pichia pastoris*

John, A., Scott, N. and Goddard-Borger, E.D. (Australia)

POS-THU-062 13:30 - 14:30

From binding protein to enzyme: investigating the emergence of cyclohexadienyl dehydratase activity from non-catalytic ancestral proteins

Clifton, B.E., **Kaczmariski, J.A.**, Carr, P.D., Tokuriki, N. and Jackson, C.J. (Australia and Canada)

POSTERS

POS-FRI-063 13:15 - 14:15

Modelling the evolution of protein structure

Lai, J.S., Kobe, B. and Boden, M. (Australia)

POS-WED-064 13:30 - 14:30

Analysis of silk gland transcriptome and silk mechanical properties of the Australian Golden Orb weavers *Nephila pilipes*

Kerr, G., Whaite, A., Nahrung, H., Weigand, A., Killen, P., Kristoffersen, J., Brown, C. and **Macdonald, J.** (Australia, UK and USA)

POS-THU-065 13:30 - 14:30

A motor mechanism for MtrD

Mitchell, J.A. and O'Mara, M. (Australia)

POS-FRI-066 13:15 - 14:15

Characterisation of a metalloendopeptidase (PepO) from *Streptococcus pyogenes*

Ngu, D., Williams, S. and Kobe, B. (Australia)

POS-WED-067 13:30 - 14:30

Structure-function properties of novel FimH adhesins from multidrug resistant *Escherichia coli* ST131

Nolan, L., Sarkar, S., Harris, J. and Totsika, M. (Australia)

POS-THU-068 13:30 - 14:30

Elucidating the structural basis of effector induced susceptibility in the *Parastagonospora nodorum* - wheat interaction

Outram, M.A., Zhao, X.M., Breen, S., Solomon, P.S., Kobe, B. and Williams, S.J. (Australia)

POS-FRI-069 13:15 - 14:15

Protein handling and assay development through the use of polymeric metal chelation coupling

Vukovic, P., McElnea, C., Gao, Y., Yang, L., Ling, T., Wong, A., Ohse, B.T., de las Heras, R., Maeji, N.J. and Huang, C.Y. (Australia)

POS-WED-070 13:30 - 14:30

Rational development of novel analgesics for the treatment of chronic pain: structure-function studies of an engineered Na_v1.7 blocker

Rahnama, S., Deuis, J., Cardoso, C.F., Vetter, I., King, G.F. and Mobli, M. (Australia)

POSTERS

POS-THU-071 13:30 - 14:30

Charting the sORF-ome of *Arabidopsis thaliana*

Menschaert, G., Verbruggen, S., Lambert, A., Nouwens, A., Dressel, U., Carroll, B. and **Rothnagel, J.A.** (Belgium and Australia)

POS-FRI-072 13:15 - 14:15

ARX homeobox interacts with PICK1 and is phosphorylated by protein kinase C alpha

Tan, M.H., Dearsley, O., Moey, C., Hii, C.S., Gecz, J. and **Shoubridge, C.** (Australia)

POS-THU-073 13:30 - 14:30

Antimicrobial, anticancer and internalization properties of cyclic Gomesin: a membrane link

Troeira Henriques, S.T., Lawrence, N., Chaousis, S., Cheneval, O., Ravipati, A.S., Chang, L.Y., Huang, Y.H. and Craik, D.J. (Australia)

POS-THU-074 13:30 - 14:30

Characterisation of the bacteriophage 186 immunity repressor by mass spectrometry, SAXS and crystallography reveals a dodecamer structure with flexibly attached DNA binding domains

Truong, J.Q., Mertens, H., Whelan, F., Pukala, T., Lun, C., Bruning, J., Dodd, I.B. and Shearwin, K.E. (Australia, Germany and UK)

POS-FRI-075 13:15 - 14:15

Engineered nanodiscs for structural studies of the interaction of venom peptides with voltage-gated ion channels in a near native environment

Zhang, A.Z., Jia, X.J. and Mobli, M.M. (Australia)

GENOMES AND BIOINFORMATICS

Posters 076 – 083

POS-WED-076 13:30 - 14:30

Collaborative Cross cell culture (C4), an in vitro model for pharmacogenomics analysis

Bi, M., Bryce, N.S., Morahan, G. and Ittner, L.M. (Australia)

POSTERS

POS-THU-077 13:30 - 14:30

Profiling the methylome following DNA damage
Ambrose, M., Joo, E., Jeffreys, S. and **Brettingham-Moore, K.** (Australia)

POS-FRI-078 13:15 - 14:15

Genome analysis of barley leaf rust pathogen, *Puccinia hordei*
Chen, J., Zhang, P., Dong, C. and Park R. (Australia)

POS-WED-079 13:30 - 14:30

Transcriptome profiling as an initial step towards indentifying defence genes to *Ascochyta lentis* in lentil (*Lens culinaris*)
Khorrarnadelazad, M., Hosseini Bai, S., Whatmore, P., Bar, I., Mantri, N., Smetham, G., Bhaaskarla, V., Yang, Y., Zhou, Y. and Ford, R. (Australia)

POS-THU-080 13:30 - 14:30

Epigenetic profiling to study the response to salinity of barley (*Hordeum vulgare*)
Konate, M., Wilkinson, M.J., Eileen, S., Mayne, B., Taylor, J., Berger, B. and Rodriguez Lopez, C.M. (Australia)

POS-FRI-081 13:15 - 14:15

Enrichment of epithelial exosomes to increase the specificity of circulating microRNAs as biomarkers for colorectal cancer
Lowe, M.T., Young, G.P. and Michael, M.Z. (Australia)

POS-WED-082 13:30 - 14:30

Further assessment of exome wide UVR signatures in melanoma
Mukhopadhyay, P. and Walker, G.J. (Australia)

POS-THU-083 13:30 - 14:30

RNA interference: a promising natural mechanism for crop pest control
Rahman, S., Jones, M.G.K. and Fosu-Nyarko, J. (Australia)

CELL BIOLOGY

Posters 084 – 101

POS-FRI-084 13:15 - 14:15

A firm grip: biomechanics of the immunological synapse
Govendir, M.A. and Biro, M. (Australia)

POSTERS

POS-WED-085 13:30 - 14:30

The CCC complex and intracellular endosomal trafficking

Healy, M., Hall, R., Ghai, R. and Collins, B. (Australia)

POS-THU-086 13:30 - 14:30

Comparison of genetic biotinylation tags to identify interacting proteins of Golgi-localised small G proteins *in vivo*

Houghton, F.J. and Gleeson, P.A. (Australia)

POS-FRI-087 13:15 - 14:15

Recycling of albumin in kidney cells and macrophages

Louber, J., Mahmoud, I., Chia, J., Glauser, I., Dumont, C., Mintern, J., Dower, S., Verhagen, A. and Gleeson, P. (Australia)

POS-WED-088 13:30 - 14:30

Human Wiskott-Aldrich Syndrome Protein-Interacting Protein (WIP) interacts with yeast Hof1p, a key regulator of the yeast cell cycle

Mack, H.B. and Munn, A.L. (Australia)

POS-THU-089 13:30 - 14:30

The GTP-binding protein Rab31 modulates the biological phenotype of breast cancer cells by affecting TGF- β signalling

Soelch, S., Beaufort, N., Kotzsch, M., Luther, T. and **Magdolen, V.** (Germany)

POS-FRI-090 13:15 - 14:15

The unstructured N-terminal region of doublecortin X (DCX) makes critical contributions to microtubule organization

Moslehi, M., Ng, D.C.H. and Bogoyevitch, M.A. (Australia)

POS-WED-091 13:30 - 14:30

Structure-function analysis of yeast Wiskott-Aldrich Syndrome Protein

Hahn, M.A., Trinh, A.V., Mack, H. and **Munn, A.L.** (Australia)

POS-THU-092 13:30 - 14:30

Quorum quenching, immunomodulatory and chemoprotective mevalonolactone from *Gundelia tournefortii* L. suppress enteropathogenic *E. coli* pathogenesis in human enterocytes

Oyong, G., Tan, M.C., Karami Ishghlo, S. and Cabrera, E. (Philippines and Iran)

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POS-FRI-093 13:15 - 14:15

Determining the molecular interface between nutrition, cell growth and tumourigenesis

Li, S.M., Zaytseva, O., Guo, L., Mitchell, N., Hannan, R., Quinn, L. and **Parsons, L.M.** (Australia)

POS-WED-094 13:30 - 14:30

Structural basis for the role of sorting nexins in host cell invasion by Chlamydia trachomatis

Paul, B., Kerr, M., Teasdale, R. and Collins, B. (Australia)

POS-THU-095 13:30 - 14:30

The significance of K-ras mutation in cancer stemness of colon cancer

Qi, Y., Zou, H., Kapeleris, J., Schoning, J.P., Monteiro, M. and Wenyi, G. (Australia and China)

POS-FRI-096 13:15 - 14:15

Measurement of chromosome loss rates using Y chromosome-linked fluorescent reporter mouse

Robinson, J., Graham, A., Mann, J. and Kalitsis, P. (Australia)

POS-WED-097 13:30 - 14:30

Targeting chromosomal instability

Shaukat, Z., Liu, D., Hussain, R., Khan, M., Basnet, S., Saint, R. and Gregory, S. (Australia)

POS-THU-098 13:30 - 14:30

UVR and ROS damage protection mediated by DCT expression in human melanocytes

Ainger, S.A., Yong, X.L.H., Wong, S.S., Skalamara, D., Gabrielli, B., Leonard, J.H. and **Sturm, R.A.** (Australia)

POS-FRI-099 13:15 - 14:15

Phosphorylation of the BACE1 DISLL sorting motif in HeLa cells and primary neurons modulates intracellular trafficking and reduces A β production

Toh, W.H. and Gleeson, P.A. (Australia)

POS-WED-100 13:30 - 14:30

Towards a molecular understanding of the interaction between Mint1 and Munc18a in the regulation of synaptic vesicle exocytosis

Weeratunga, S., Livingstone, E., Martin, J. and Collins, B. (Australia)

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POS-THU-101 13:30 - 14:30

Targeting the 'Achilles heel': investigating the mechanisms of polymyxin-induced nephrotoxicity

Yun, B., Zhang, T., Azad, M.A.K., Wang, J., Nowell, C.J., Kalitsis, P., Hudson, D.F., Velkov, T. and Li, J. (Australia)

CELL SIGNALLING

Posters 102 – 108

POS-FRI-102 13:15 - 14:15

Growth hormone induction of the immunotolerance gene H2-B1/HLA-G is essential for survival after partial hepatectomy
Ishikawa, M., **Brooks, A.J.**, Fernández-Rojo, M.A., Chhabra, Y., Minami, S., Parton, R.G., Vivian, J.P., Rossjohn, J., Ho, K.K.Y. and Waters, M.J. (Australia, Japan and United Kingdom)

POS-WED-103 13:30 - 14:30

Mutant IL7R alpha dimerization and signalling

Campos, L.W., Rodrigues, G.O.L., Zenatti, P.P. and Yunes, J.A. (Brasil)

POS-THU-104 13:30 - 14:30

The structural basis for GHR recognition by JAK2

Dehkhoda, F., Price, R.K., Broughton, S.E., Parker, M.W. and Brooks, A.J. (Australia)

POS-FRI-105 13:15 - 14:15

TIR domain polymerisation of adaptor proteins in the MyD88-independent pathway

Hedger, A., Ve, T., Landsberg, M. and Kobe, B. (Australia)

POS-WED-106 13:30 - 14:30

Proteolysis of EphB4 in prostate cancer produces a bioactive intracellular domain fragment

Lisle, J., Mertens-Walker, I., Maharaj, M., Stephens, C., Clements, J., Herington, A. and Stephenson, S. (Australia)

POS-THU-107 13:30 - 14:30

The GTP-dependent step is not integral to the heterotrimeric extra-large G α subunit, XLG2, in regulation of plant immune response

Maruta, N., Trusov, Y. and Botella, J. (Australia)

POSTERS

POS-FRI-108 13:15 - 14:15

Anti-myeloma activity of gold(1) compounds

Sze, J.H., Raninga, P.V., Di Trapani, G., Berners-Price, S.J. and Tonissen, K.F. (Australia)

BIOCHEMISTRY AND METABOLISM

Posters 109 – 118

POS-WED-109 13:30 - 14:30

Copper induction of laccases in the plant pathogenic fungus, *Botrytis cinerea*

Buddhika, U.V.A., Savocchia, S., Strappe, P., Schmidtke, L.M. and Steel, C.C. (Australia)

POS-THU-110 13:30 - 14:30

Characterising *de novo* purine biosynthesis as a platform to antifungal drug design

Chitty, J.L., Blake, K.L., Williams, S.J., Kappler, U., Cooper, M.A., Kobe, B. and Fraser, J.A. (Australia)

POS-FRI-111 13:15 - 14:15

Understanding the mechanism of (1,3; 1,4)- β -D-glucan synthesis in cereals

Doblin, M.S., Oehme, D., Ho, Y.Y., Bain, M.P., Ford, K., Lampugnani, E.R. and Bacic, A. (Australia)

POS-WED-112 13:30 - 14:30

Impact of respiratory syncytial virus on host cell mitochondria

Hu, M.J., Li, H.M., Caly, L., Stroud, D.A., Henstridge, D.C., Ryan, M.T., Bogoyevitch, M.A. and Jans, D.A. (Australia)

POS-THU-113 13:30 - 14:30

Lysophospholipid content of Australian grown rice

Khatun, A., Waters, D.E., Pallas, L. and Liu, L. (Australia)

POS-FRI-114 13:15 - 14:15

Non-combinatorial library screening reveals subsite cooperativity and identifies new peptide substrates for human neutrophil elastase

Leahy, D., Chen, X., Van Haeften, J. and Harris, J.M. (Australia)

POSTERS

POS-WED-115 13:30 - 14:30

Unravelling the causes for reduced grain protein under elevated CO₂

Tausz-Posch, S., Bahrami, H., Fitzgerald, G.J., Armstrong, R., Buchner, P. and Tausz, M. (Australia and UK)

POS-THU-116 13:30 - 14:30

Engineering thermostable and industrially useful cytochrome P450 enzymes

Thomson, R.E.S. (Australia)

POS-FRI-117 13:15 - 14:15

Pigments in rust fungi: biosynthesis, role and evolution

Wang, E., Roberts, T., Dong, C.M. and Park, R. (Australia)

POS-WED-118 13:30 - 14:30

Exploring the molecular genetics and chemistry of tropane alkaloid production in species belonging to the Australian tribe *Anthocercidaea*, family *Solanaceae*

Webb, L., DeGuzman, G., Stevenson, P., Conlan, X.A., Callahan, D., Haak, I. and Hamill, J.D. (Australia)

LATE POSTERS

Posters 119 – 136

POS-THU-119 13:30 - 14:30

Improving patient response to cancer drug (Cetuximab) by stopping trafficking of receptors

Echejoh, G., Hu, L., Joseph, S., Wells, J., Martin, J., Foote, M., Saunders, N., Walpole, E., Panizza, B. and Simpson, F. (Australia)

POS-FRI-120 13:15 - 14:15

Characterisation of root architectural responses of mungbean to water deficit

Dotd, M., Chauhan, Y., Williams, R., Williams, B. and Mundree, S. (Australia)

POS-WED-121 13:30 - 14:30

Sweetening the deal for narrow-leafed lupin (*Lupinus angustifolius* L.): understanding the quinolizidine alkaloid biosynthetic pathway

Frick, K.M., Foley, R.C., Kamphuis, L.G., Siddique, K.H.M., Nambiar, S., Trengove, R.D. and Singh, K.B. (Australia)

POSTERS

POS-THU-122 13:30 - 14:30

Iron biofortification of chickpea

Tan, Z.H.G., Das Bhowmik, S., Williams, B., Johnson, A.T., Hoang, T.M.L., Karbarschi, M.R., Cheng, Y., Long, H. and Mundree, S. (Australia)

POS-FRI-123 13:15 - 14:15

Can-Seq: a PCR and deep sequencing strategy for identifying new alleles of candidate genes required for systemic RNA silencing in *Arabidopsis*

Cao, J.L., Gursansky, N.R., Fletcher, S.J., Taochy, C., Coleman, M., Makeough, L., Dressel, U., Mitter, N. and Carroll, B.J. (Australia)

POS-WED-124 13:30 - 14:30

Finding the sweet spot: genetic and chemical genetic screens for sugar signalling in plants

Roman, A., Eastmond, H., Arshad, W., Graham, I.A. and **Haydon, M.J.** (Australia)

POS-THU-125 13:30 - 14:30

PLEIOTROPIC REGULATORY LOCUS 1 is required for root to shoot transmission of RNA silencing in *Arabidopsis* embryos and seedlings

Turner, M.H., Gursansky, N.R., Taochy, C., Cao, J., Coleman, M., McKeough, L., Fletcher, S.J., Kazan, K. and Carroll, B.J. (Australia)

POS-FRI-126 13:15 - 14:15

Live and let dry: *Tripogon loliiformis* regulates autophagy to suppress cell death and tolerate desiccation

Williams, B., Njaci, I., Moghaddam, L., Long, H., Dickman, M., Zhang, X. and Mundree, S. (Australia and USA)

POS-WED-127 13:30 - 14:30

Genetic enhancement of chickpea varieties for improved drought resistance and prediction of yield performance using APSIM model under soil bed glasshouse condition

Das Bhowmik, S., Cheng, A., Long, H., Hoang, M., Chauhan, Y., Williams, B., Higgins, T.J. and Mundree, S.M. (Australia)

POSTERS

POS-THU-128 13:30 - 14:30

The roles of Lhx1 and Otx2 in male germ cell differentiation during fetal development in mice

Binnie, B.B., Rolland, A., Ineson, J., Koopman, P., Spiller, C. and Bowles, J. (Australia)

POS-FRI-129 13:15 - 14:15

Exploring the signalling mechanism of glutamate excitotoxicity in cultured primary neurons by quantitative proteomic and phosphorproteomic approaches

Hoque, A., Ang, C.-S., Williamson, N.A., Ng, D.C. and Cheng, H.-C. (Australia)

POS-WED-130 13:30 - 14:30

Comparative analysis of osmotins from *Tripogon loliiformis* and *Oryza sativa* revealed role in abiotic stress tolerance through signalling pathways

Le, T., Williams, B. and Mundree, S. (Australia)

POS-THU-131 13:30 - 14:30

A molecular probe for the detection of polar lipids in live cells

Bader, C.A., Carter, E.A., Stagni, S., Voelcker, N.H., Lay, P.A., Massi, M., Plush, S. and **Brooks, D.A.** (Australia and Italy)

POS-FRI-132 13:15 - 14:15

Identifying the mechanism of the Merkel Cell Polyomavirus early region in the induction of Merkel Cell Carcinoma

Ngan, C.N., Onggowarsito, A., Pacini, L., Wiedorfer, K., Shahzad, H.N., Accardi-Gheit, R., Tommasino, M. and Whitaker, N. (Australia and France)

POS-WED-133 13:30 - 14:30

The *in vitro* and *in vivo* antiviral properties of combined monoterpenic alcohols against West Nile Virus infection

Pliego Zamora, A., Edmonds, J., Khromykh, A. and Ralph, S.J. (Australia)

POS-THU-134 13:30 - 14:30

Catch me if you can: the hunt for novel diagnostic cancer biomarkers

Swift, J.M., Whitaker, N.J., Cox, J., Pavic, A. and Lutze-Mann, L.H. (Australia)

POSTERS

POS-FRI-135 13:15 - 14:15

Characterising the mutations involved in resistance to biotin protein ligase inhibitors, a novel class of antibacterial agent to combat *Staphylococcus aureus*

Hayes, A., Satiaputra, J., Paparella, A.S., Bianco-Rodriguez, B., Pedersen, S., Abell, A.D., Booker, G.W. and **Polyak, S.W.** (Australia)

POS-WED-136 13:30 - 14:30

Molecular Cloning Designer Simulator (MCDS): All-in-one molecular cloning and genetic engineering design, simulation and management software for complex project management
Shi, Z. and **Vickers, C.E.** (Australia)