

12:30 – 14:30

POSTER SESSION A

Location: Bayside Grand Hall

Presenters for odd numbered posters in attendance 12:30 – 13:30

Presenters for even numbered posters in attendance 13:30 – 14:30

Posters 001 – 070	Neurological and Psychiatric Conditions I
Posters 071 – 072	Education and Teaching
Posters 073 – 095	Channels and Transporters
Posters 096 – 117	Cardiovascular System
Posters 118 – 125	Limbic and other Brain Systems
Posters 126 – 149	Neural Development I
Posters 150 – 197	Sensory Systems I
Posters 198 – 223	Neurophysiology, Transmission and Excitability I
Posters 224 – 235	Techniques in Neuroscience and Physiology
Posters 236 – 251	Late Posters (Not sorted by theme)

NEUROLOGICAL AND PSYCHIATRIC CONDITIONS I
Posters 001 to 070

POS-MON-001 12:30 - 13:30

Bone morphogenic protein signalling alters the precursor cell response during cuprizone-induced demyelination

Cate, H.S., Sabo, J.K., Merlo, D., Aumann, T. and Kilpatrick, T.J. (Australia)

POS-MON-002 13:30 - 14:30

Frontal white matter and posterior cingulate abnormalities metabolite abnormalities in older and clinically stable HIV+ individuals

Cysique, L.A., Moffat, K., Nugent-Cleary-Fox., Brew, B.J. and Rae, C. (Australia)

POS-MON-003 12:30 - 13:30

An age difference in Mu opioid receptor binding density in the human putamen but no changes in schizophrenia

Pan, B., Huang, X.-F., Dedova, I. and Deng, C. (Australia)

POS-MON-004 13:30 - 14:30

Impact of adult vitamin D₃ (AVD) deficiency on brain function and behaviour in Sprague-Dawley rats

Voogt, M., Cui, X., McGrath, J.J., Eyles, D.W. and Burne, T.H.J. (Australia)

POS-MON-005 12:30 - 13:30

Modelling cognitive symptoms of schizophrenia in developmental vitamin D (DVD)-deficient rats

Turner, K.M., McGrath, J.J., Eyles, D.W. and Burne, T.H.J. (Australia)

POS-MON-006 13:30 - 14:30

Does vitamin D deficiency alter attentional processing in rats?

Byrne, J.H., Turner, K., Voogt, M., McGrath, J.J., Eyles, D.W. and Burne, T.H.J. (Australia)

POS-MON-007 12:30 - 13:30

Developmental vitamin D (DVD) deficiency is associated with behavioural alterations that are relevant to schizophrenia

Burne, T.H.J., Turner, K., Alexander, S., Kesby, J.P., McGrath, J.J. and Eyles, D.W. (Australia)

POS-MON-008 13:30 - 14:30

Sensorimotor gating in mature adult developmentally vitamin D (DVD)-deficient rat

Alexander, S.A., McGrath, J.J., Eyles, D.W. and Burne, T.H.J. (Australia)

POS-MON-009 12:30 - 13:30

Neuregulin1 and ErbB4 protein expression in the rat brain following perinatal phencyclidine treatment

Warren, C.R., Newell, K.A., Du Bois, T.M. and Huang, X.F. (Australia)

POS-MON-010 13:30 - 14:30

Studying the 'two-hit' hypothesis of schizophrenia in mice: role of brain-derived neurotrophic factor (BDNF)

Klug, M., Choy, K.H.C., Hill, R. and Van den Buuse, M. (Australia)

POS-MON-011 12:30 - 13:30

Environmental enrichment affects PCP-induced behavioural and neurochemical symptoms of schizophrenia

Frank, E., Snikeris, P., Pathy, R. and Huang, X.F. (Australia)

POS-MON-012 13:30 - 14:30

Cannabinoid CB1 receptor density is increased in the dorsolateral prefrontal cortex (Brodmann's area 46) in schizophrenia

Dalton, V.S. and Zavitsanou, K. (Australia)

POS-MON-013 12:30 - 13:30

The effects of the synthetic cannabinoid HU210 on [³⁵S]TBPS binding to GABA(A) receptors in the brain of adult and adolescent rats

Verdurand, M., Dalton, V.S. and Zavitsanou, K. (Australia)

POS-MON-014 13:30 - 14:30

The effects of the synthetic cannabinoid HU210 on 5HT1A receptor mRNA expression in the brain of adult and adolescent rats

Wang, H.Q., Nguyen, V. and Zavitsanou, K. (Australia)

POS-MON-015 12:30 - 13:30

The effect of perinatal and adolescent brain development disruption from NMDA receptor antagonism on CB1 receptor levels in the rat prefrontal cortex

Dawson, A.E., Newell, K.A., Ruthirakumar, S. and Huang, X.F. (Australia)

POS-MON-016 13:30 - 14:30

Molecular pathways associated with psychostimulant addiction

Brown, A.L., Flynn, J.R., Smith, D.W. and Dayas, C.V. (Australia)

POS-MON-017 12:30 - 13:30

Glial fibrillary acidic protein (GFAP) is unaltered in the anterior cingulate from subjects with mood disorders

Brooks, L., Gibbons, A.S. and Dean, B. (Australia and UK)

POS-MON-018 13:30 - 14:30

Astrocytic tumour necrosis factor underlies neuron function in cognition

Anscomb, H.L. and Baune, B.T. (Australia)

POS-MON-019 12:30 - 13:30

Subjective measures of treatment outcome for people with schizophrenia on antipsychotic medications

Bakas, T. and Hinton, T. (Australia)

POS-MON-020 13:30 - 14:30

Secretase expression and neuregulin 1 processing in schizophrenia

Barakat, A., Scarr, E., Dean, B. and Evin, G. (Australia)

POS-MON-021 12:30 - 13:30

Investigation of the neuroanatomical substrates underlying primed reinstatement of a cocaine-induced place preference

Brown, R.M., Short, J.L. and Lawrence, A.J. (Australia)

POS-MON-022 13:30 - 14:30

Molecular profile of stress-related regions of rat brain following inescapable foot shock

Barreto, R.A., Walker, F.R., Dunkley, P.R., Day, T.A. and Smith, D.W. (Australia)

POS-MON-023 12:30 - 13:30

The effects of phencyclidine on the NMDAR/neuregulin1 signalling complex: implications for schizophrenia

Du Bois, T.M., Newell, K.A., Warren, C.R. and Huang, X.-F. (Australia)

POS-MON-024 13:30 - 14:30

Immune factors in animal models of schizophrenia

Snikeris, P., Huang, X.-F. and Frank, E. (Australia)

POS-MON-025 12:30 - 13:30

Intracranial pressure and oedema in two models of subarachnoid haemorrhage

Barry, C.M., Van Den Veuvel, C., Helps, S. and Vink, R. (Australia)

POS-MON-026 13:30 - 14:30

Impaired eyeblink conditioning reveals neuronal function for ATM independent of its role in DNA repair

Birt, J., Lavin, M.A., Luff, J., Power, J. and Bellingham, M.C. (Australia)

POS-MON-027 12:30 - 13:30

GABA_A receptor $\alpha 3$ cortical expression in perinatal asphyxia

Bjorkman, S.T., Miller, S.M., Eckert, A.L., Dodd, P.R. and Colditz, P.B. (Australia)

POS-MON-028 13:30 - 14:30

Focal damage to the adult rat neocortex induces axonal sprouting and dendritic structural plasticity

Blizzard, C.A., Chuckowree, J.A., King, A.E., McCormack, G.H., Chapman, J.A., Vickers, J.C. and Dickson, T.C. (Australia)

POS-MON-029 12:30 - 13:30

Minocycline does not affect neurogenesis, but improves neurological outcome following traumatic brain injury in mice

Bye, N., Ng, S.Y., Tran, M., Semple, B.D., Kossmann, T. and Morganti-Kossmann, M.C. (Australia)

POS-MON-030 13:30 - 14:30

Cytokine expression in post mortem human brain tissue following acute traumatic brain injury

Frugier, T., Mclean, C.A., O'Reilly, D. and Morganti-Kossmann, M.C. (Australia)

POS-MON-031 12:30 - 13:30

Down-regulation of the serotonin transporter following preterm hypoxic-ischemic brain injury

Wixey, J.A., Reinebrant, H.E. and Buller, K.M. (Australia)

POS-MON-032 13:30 - 14:30

Endogenous brain allopregnanolone is increased following exogenous administration of allopregnanolone in an animal model of stroke

Tomkins, A.J., Calford, M.B. and Spratt, N.J. (Australia)

POS-MON-033 12:30 - 13:30

Changes in GFAP phosphorylation in the hypoxic/ischemic brain

Sullivan, S.M., Bjorkman, S.T., Miller, S.M. and Colditz, P.B. (Australia)

POS-MON-034 13:30 - 14:30

A novel mimetic peptide against connexin43 enhances neuronal survival in a rat model of spinal cord contusion injury

Gorrie, C.A., Roberts, S., Waite, P.M.E., Nicholson, L.F.B., Green, C.R. and O'Carroll, S.J. (Australia and New Zealand)

POS-MON-035 12:30 - 13:30

Post-traumatic hypoxia exacerbates neurological deficits, neuroinflammation, and axonal damage following traumatic axonal injury

Hellewell, S.C., Yan, E.B., Agyapomaa, D.A. and Morganti-Kossmann, M.C. (Australia)

POS-MON-036 13:30 - 14:30

Behavioural deficits in rats following ischemic stroke - a longitudinal study

Rewell, S.S., Porritt, M.J. and Howells, D.W. (Australia)

POS-MON-037 12:30 - 13:30

Confounding neurodegenerative effects of manganese for in-vivo imaging in rat models of brain insults
Cardamone, L., Bouilleret, V., Liu, Y.R., **Koe, A.S.**, Fang, K., Williams, J.P., Myers, D.E., Jones, N.C. and O'Brien, T.J.
(Australia and France)

POS-MON-038 13:30 - 14:30

Inhibition of neuroinflammation prevents raphe neuron loss after hypoxic-ischemic brain injury
Reinebrant, H.E., Wixey, J.A. and Buller, K.M. (Australia)

POS-MON-039 12:30 - 13:30

Interleukin-17 contributes to neuroinflammation and neuropathic pain following peripheral nerve injury
Kim, C. and **Moalem-Taylor, G.** (Australia)

POS-MON-040 13:30 - 14:30

Evidence of apoptosis in the periaqueductal grey of rats with disability and pain after peripheral nerve injury
Mor, D. and Keay, K.A. (Australia)

POS-MON-041 12:30 - 13:30

Effects of silencing connexin-43 expression on the astrocytic response to injury in cell cultures
Homkajorn, B., Sims, N.R. and Muyderman, H. (Australia)

POS-MON-042 13:30 - 14:30

Identification of cellular responses to autoimmune injury in neurons
Jonas, A., Gresle, M., Perreau, V., Kilpatrick, T. and Butzkueven, H. (Australia)

POS-MON-043 12:30 - 13:30

Hypothermia during transient focal ischaemia in spontaneously hypertensive rats is not neuroprotective
McLeod, D., Tomkins A., **Pepperall, D.**, Chung, S., Calford, M. and Spratt, N. (Australia)

POS-MON-044 13:30 - 14:30

Ablation of insulin-regulated aminopeptidase gene protects against ischemic damage in the brain
Pham, V., Downes, C.E., Wong, C.H.Y., Diwakarla, S., Albiston, A.L., Ng, L., Lee, S., Crack, P.J. and Chai, S.Y. (Australia)

POS-MON-045 12:30 - 13:30

Spinal cord compression injury - the roles of early decompression and hypothermia in functional recovery

Kerr, N.F., Gatt, A.M., Ghasem-Zadeh, A., Aleksoska, E., Cox, S.F., Wills, T.E., Howells, D.W. and Batchelor, P.E. (Australia)

POS-MON-046 13:30 - 14:30

Deficiency of the chemokine receptor CXCR2 attenuates neutrophil infiltration and lesion volume following closed head injury

Sample, B.D., Bye, N., Ziebell, J.M. and Morganti-Kossmann, M.C. (Australia)

POS-MON-047 12:30 - 13:30

Ischaemia-induced CaMKII phosphorylation in hypertensive and normotensive rats

Skelding, K.A., Tomkins, A., Fleuchter, L., Pepperall, D., **Spratt, N.** and Rostas, J.A.P. (Australia)

POS-MON-048 13:30 - 14:30

The involvement of neurotoxin quinolinic acid in neuropathogenesis of multiple sclerosis

Lim, C.K., Adam, S., Brew, B.J. and Guillemin, G.J. (Australia)

POS-MON-049 12:30 - 13:30

TAM receptor signalling in early CNS demyelination

Ma, G.Z.M., Kemper, D., Kilpatrick, T.J. and Binder, M.D. (Australia)

POS-MON-050 13:30 - 14:30

An inducible and defined demyelinating CNS co-culture system visualised by time-lapse confocal microscopy

Stratton, J.A.S., Kilpatrick, T.J. and Merson, T.D. (Australia)

POS-MON-051 12:30 - 13:30

Modulation of bone morphogenic signalling during demyelination

Sabo, J., Merlo, D., Aumann, T., Kilpatrick, T. and Cate, H. (Australia)

POS-MON-052 13:30 - 14:30

Identification of post-transcriptional and post-translational regulatory mechanisms in the synaptic proteome of human, cirrhotic-alcoholic brain

Etheridge, N., Mayfield, R.D., Harris, R.A. and Dodd, P.R. (Australia and USA)

POS-MON-053 12:30 - 13:30

Impact of advanced paternal age on copy number variation in offspring

Flatscher-Bader, T., Foldi, C.J., Chong, S., Whitelaw, E., Eyles, D.W., Burne, T.H. and McGrath, J.J. (Australia)

POS-MON-054 13:30 - 14:30

Gene expression profiling in canine fucosidosis

Fletcher, J.L., Kondagari, G.S., Williamson, P. and Taylor R. (Australia)

POS-MON-055 12:30 - 13:30

Effect of intracisternal enzyme replacement therapy on cerebrocortical pathology in canine fucosidosis

Kondagari, G.S. and Taylor, R. (Australia)

POS-MON-056 13:30 - 14:30

Selective ablation of basal forebrain cholinergic neurons does not affect contextual fear conditioning or Y-maze performance

Hamlin, A.S. and Coulson, E.J. (Australia)

POS-MON-057 12:30 - 13:30

Correlations between neuronal and microglial activation induced by chronic restraint stress in the rat medial prefrontal cortex

Hinwood, M., Tynan, R.J., Day, T.A. and Walker, F.R. (Australia)

POS-MON-058 13:30 - 14:30

Long-term changes in neuroprotein expression in voluntarily morphine preferring rats

Joshi, D., Malone, D.T. and Taylor, D.A. (Australia)

POS-MON-059 12:30 - 13:30

Expression of ABCA8 in human brain white matter: potential role in sphingomyelin homeostasis

Kim, W.S., Bhatia, S., Shannon Weickert, C., Halliday, G.M. and Garner, B. (Australia)

POS-MON-060 13:30 - 14:30

Patient-derived, human adult olfactory stem cells: a new model for neurological diseases

Mackay-Sim, A., Abrahamsen, G., Matigian, N., Sutharsan, R., Nouwens, A., Cochrane, J., Perry, C., Silburn, P., McGrath, J. and Wells, C. (Australia)

POS-MON-061 12:30 - 13:30

Pituitary volume in focal epilepsy

Miaozai, Z., Salzberg, M., Lorenzetti, V., O'Brien, T.J., Velakoulis, D. and Adams, S. (Australia)

POS-MON-062 13:30 - 14:30

Olanzapine decreases [³H]SR141716A binding to cannabinoid CB1 receptors in the rat hippocampus and auditory cortex: a dosage-dependent response

Lian, J., Weston-Green, K., Kang, K., Huang, X.-F. and Deng, C. (Australia, China)

POS-MON-063 12:30 - 13:30

The dosage response to the side-effect of metabolic dysfunction in female rats following olanzapine treatment

Weston-Green, K.L., Huang, X.F. and Deng, C. (Australia)

POS-MON-064 13:30 - 14:30

Small animal pet with [¹⁸F]FDG after a single dose of the synthetic cannabinoid HU210

Nguyen, V.H., Wang, H., Verdurand, M., Dedeurwaerdere, S., Zahra, D., Gregoire, M.-C. and Zavitsanou, K. (Australia)

POS-MON-065 12:30 - 13:30

An abstinence model of cue-induced reward-seeking reveals similar relapse behaviour for both natural and drug reinforcers in mice

Madsen, H.B., Brown, R.M. and Lawrence, A.J. (Australia)

POS-MON-066 13:30 - 14:30

Plasma leptin and salivary cortisol levels are correlated with state alcohol and smoking craving in early abstinent alcoholics

Ho, A.M.C., Daglish, M.R., Dodd, P.R. and Stadlin, A. (Australia and Republic of Korea)

POS-MON-067 12:30 - 13:30

The effects of chronic adolescent and adult amphetamine treatment of psychotic-like behaviours and synaptic plasticity

Malone, D.T., Cassells, K., Short, J.L. and Taylor, D.A. (Australia)

POSTER SESSION A – MONDAY 1 FEBRUARY 2010

POS-MON-068 13:30 - 14:30

Caloric vestibular stimulation reduces allodynia in complex regional pain syndrome (CRPS) type II

Ngo, T.T., Chou, M.J., Nunn, A., Arnold, C., Brown, D.J., Gibson, S.J. and Miller, S.M. (Australia)

POS-MON-069 12:30 - 13:30

Specific, non-viral gene delivery targeting motor neurons in-vitro and in-vivo

Rogers, M.-L., Matusica, D., Hoffman, L., Voelcker, N.H. and Rush, R.A. (Australia)

POS-MON-070 13:30 - 14:30

Chronic stress sufficient to elicit anhedonia alters the density and morphology of microglia in forebrain and midbrain stress responsive nuclei

Tynan, R.J., Naicker, S., Hinwood, M., Nalivaiko, E., Buller, K., Day, T. and Walker, R. (Australia)

EDUCATION AND TEACHING

Posters 071 to 072

POS-MON-071 12:30 - 13:30

A turnkey tutorial with the simulator Simbrain 3 teaches students about connectionist neural networks

Holcombe, A.O. and Yoshimi, J. (Australia and USA)

POS-MON-072 13:30 - 14:30

Online feedback assessments in physiology: effects on learning

Ulman, L.G., Marden, N.Y. and Velan, G.M. (Australia)

CHANNELS AND TRANSPORTERS

Posters 073 to 095

POS-MON-073 12:30 - 13:30

Examining expression of HCN variants 1 and 2 in rat single striatal cholinergic interneurons

Smith, L.M., Oswald, M.J., Stanton, J.L., Reynolds, J.N.J. and Clements, K.M. (New Zealand)

POS-MON-074 13:30 - 14:30

Modulation of the Ca²⁺ conductance of nicotinic acetylcholine receptors by the endogenous protein Lypd6

Morsch, M., Darvas, M., Racz, I., Zimmer, A., Ahmadi, S. and Swandulla, D. (Germany and Australia)

POS-MON-075 12:30 - 13:30

A heterogeneous stoichiometry of $\alpha 9 \alpha 10$ nicotinic acetylcholine receptors is detected by the selective conotoxin Vc1.1

Absalom, N.L., Liang, G., Pera, E., Chu, C., Kim, H.-L., McIntosh, J.M. and Chebib, M. (Australia and USA)

POS-MON-076 13:30 - 14:30

Investigating the nicotinic non-competitive binding site

Quek, G.X.J., Halliday, J.I., Absalom, N.L., McLeod, M.D. and Chebib, M. (Australia)

POS-MON-077 12:30 - 13:30

Effects of lobeline, a nicotinic receptor ligand, on the cloned cardiac K⁺ channels, Kv1.5, Kv3.1 and Kv4.3

Jeong, I.J., Hahn, S.J. and Choi, B.H. (Korea)

POS-MON-078 13:30 - 14:30

Ircinialactams: a new class of subunit-selective Glycine receptor modulators

Islam, R., Balansa, W., Fontaine, F., Webb, T.I., Gilbert, D.L., Piggott, A.M., Zhang, H., Capon, R. and Lynch, J.W. (Australia)

POS-MON-079 12:30 - 13:30

Comparison of ligand-induced conformational changes in glycine receptor $\alpha 1$, $\alpha 3$ and β subunit M2 domains

Han, L.H., Wang, Q.W. and Lynch, J.L. (Australia)

POS-MON-080 13:30 - 14:30

Ethanol and G $\beta\gamma$ modulation of the $\alpha 1$ glycine receptor

Jones, S.L., Carland, J.E. and Moorhouse, A.J. (Australia)

POS-MON-081 12:30 - 13:30

Characterising a high-throughput assay for drug screening at the $\alpha 2\beta 2\gamma 1$ GABA_A receptor

Dixon, C.L., Sah, P. and Lynch, J.W. (Australia)

POS-MON-082 13:30 - 14:30

Effect of *Ginkgo* terpenoid lactones on cysteinyl mutants of GABA_A receptor pore

Ng, C.C., Duke, R., Hinton, T. and Johnston, G.A.R. (Australia)

POS-MON-083 12:30 - 13:30

Investigating GABA-A receptor pore conformations using disulfide trapping

Yang, Z., Webb, T.I., Lynagh, T.L. and Lynch, J.W. (Australia)

POS-MON-084 13:30 - 14:30

Extracellular loops 2 and 4 of GLYT2 are required for N-Arachidonyl-glycine inhibition of glycine transport

Edington, A.R., Mckinzie, A.A., Ryan, R.M. and Vandenberg, R.J. (Australia)

POS-MON-085 12:30 - 13:30

EAAT5 mediates glutamate transport in mouse vestibular epithelium

Lim, R., Kindig, A.E., Lee, A., Pow, D.V., Callister, R.J. and **Brichta, A.M.** (Australia)

POS-MON-086 13:30 - 14:30

Exploring the role of TM8 as a key domain in influencing the functional properties of human glutamate transporters

Sirivanta, T., Conigrave, A., Vandenberg, R.J. and Ryan, R.M. (Australia)

POS-MON-087 12:30 - 13:30

Identification of new variant forms of the photoreceptor glutamate transporter EAAT5

Lee, A. and Pow, D.V. (Australia)

POS-MON-088 13:30 - 14:30

The physiological role of aminopeptidase N in the transport of amino acids

Fairweather, S.J. and Broer, S. (Australia)

POS-MON-089 12:30 - 13:30

Biological activity of alanine-substituted analogues of α -conotoxin Vc1.1 on N-type calcium channels in rat sensory neurons

Callaghan, B.P., Jensen, J., Clark, R.J., Craik, D.J. and Adams, D.J. (Australia)

POS-MON-090 13:30 - 14:30

Temporal and spatial expression of sodium channel alpha-subunits and splice variants in the developing C57BL/6 mouse brain

Gazina, E.V., **Richards, K.L.**, Mokhtar, M.B.C., Thomas, E.A., Reid, C.A. and Petrou, S. (Australia)

POS-MON-091 12:30 - 13:30

Adenosine modulates the excitability of layer II stellate neurons in entorhinal cortex through A1 receptors

Li, Y., Fan, S. and Hu, Z. (China)

POS-MON-092 13:30 - 14:30

Identification of a loss-of-function polymorphism in the human P2X4 receptor

Stokes, L., Skarratt, K.K., Gu, B.J. and Wiley, J.S. (Australia)

POS-MON-093 12:30 - 13:30

The effect of aging on astrocyte connexins in the rat retina: implications of number, plaque size, protein expression and hemichannel heterogeneity

Mansour, H., Cole, L. and Chan-Ling, T. (Australia)

POS-MON-094 13:30 - 14:30

TRP channels determine human keratinocyte differentiation: new insight into basal cell carcinoma

Vandenberghe, M., Lehenkyi, V., Beck, B., Prevarskaya, N. and

Skryma, R. (France)

POS-MON-095 12:30 - 13:30

The axonal transport and release of proBDNF is mediated by Huntingtin associated protein-1 in rodent neurons

Yang, M., Lim, Y., Zhong, J.H., Sun, A., Wang, Y.J., Li, X.J. and Zhou, X.F. (Australian and USA)

CARDIOVASCULAR SYSTEM

Posters 096 to 117

POS-MON-096 13:30 - 14:30

Microglia are activated in the paraventricular nucleus of STZ diabetic rats

Rana, I., Badoer, E. and **Stebbing, M.J.** (Australia)

POS-MON-097 12:30 - 13:30

Effect of hydrogen sulphide in the brain on cardiovascular regulation

Streeter, E., Badoer, E. and Favaloro, J. (Australia)

POS-MON-098 13:30 - 14:30

Apolipoprotein E genotype and aspects of the cardiovascular risk phenotype: impact of gender and body weight (the FINGEN study)
Kofler, B.M., Miles, E.A., Curtis, P., Lietz, G., Packard, C.J., Caslake, M.C., Mathers, J.C., Williams, C.M., Calder, P.C. and **Minihane, A.M.** (UK and New Zealand)

POS-MON-099 12:30 - 13:30

Comparison of heart rate variability in subjects with Parkinson's disease or extrapyramidal motor slowing
Brown, R., Duma, S.R., Broe, G.A. and Macefield, V. (Australia)

POS-MON-100 13:30 - 14:30

Measurement of absolute amount of Calsequestrin 2 present in cardiac ventricular muscle
Murphy, R.M., Mollica, J.P., Beard, N.A. and **Lamb, G.D.** (Australia)

POS-MON-101 12:30 - 13:30

Function of adrenergic-stimulated cardiac RyRs
Li, J., Van Helden, D. and Laver, D. (Australia)

POS-MON-102 13:30 - 14:30

Nifedipine-insensitive vasoconstriction of pressurised rat basilar arteries
Ellis, A. and Hill, C.E. (Australia)

POS-MON-103 12:30 - 13:30

Fructose-fed mice exhibit myocardial growth and calcium handling abnormalities associated with oxidative stress
Mellor, K.M., Wendt, I.R., Ritchie, R.H. and **Delbridge, L.M.D.** (Australia)

POS-MON-104 13:30 - 14:30

The role of store-operated calcium channels in endothelin-1-mediated vasoconstriction of rat mesenteric arteries
Chan, Y.Y., Beltrame, J.F. and Wilson, D.P. (Australia)

POS-MON-105 12:30 - 13:30

Ryanodine receptor dysfunction in anthracycline-induced cardiotoxicity
Hanna, A.D., Janczura, M., Dulhunty, A.F. and **Beard, N.A.** (Australia)

POS-MON-106 13:30 - 14:30

Flecainide blocks Ca^{2+} release channels associated with CPVT-induced cardiac arrhythmias

Mehra, D., Van Helden, D.F., Knollmann, B.C. and Laver, D.R. (Australia and USA)

POS-MON-107 12:30 - 13:30

Spatial association of TRPC3, IK_{CA} and myoendothelial gap junctions in rat mesenteric artery

Senadheera, S., Kim, Y. and Sandow, S.L. (Australia)

POS-MON-108 13:30 - 14:30

Taurine supplementation increases rat cardiac calsequestrin 2 protein content, while decreasing the taurine transporter protein

Murphy, R.M., Horvath, D., Stathis, C.G., Hayes, A. and Goodman, C.A. (Australia and USA)

POS-MON-109 12:30 - 13:30

Differential expression of PACAP receptors in the rostral ventrolateral medulla determined by quantitative real-time PCR

Lung, M.S.Y., Farnham, M.M.J. and Pilowsky, P.M. (Australia)

POS-MON-110 13:30 - 14:30

Diminished cardiovascular but not emotional reactivity to contextual fear conditioning in $\text{AT}_{1\text{A}}$ receptor knockout mice

Choy, K.H.C., Chavez, C.A., and Mayorov, D.N. (Australia)

POS-MON-111 12:30 - 13:30

Catestatin attenuates the effects of intrathecal nicotine and isoproterenol

Gaede, A.H., Lung, M.S.Y. and Pilowsky, P.M. (Australia)

POS-MON-112 13:30 - 14:30

Effect of 5HT_{1A} receptor activation in lower brainstem on cardiovascular and behavioural responses to psychological and physical stress

Luong, L.N.L., Vianna, D.M.L. and Carrive, P. (Australia)

POS-MON-113 12:30 - 13:30

A model of atrial propagation based on *in vitro* action potential records

Al Abed, A., Guo, T., Dokos, S. and Lovell, N.H. (Australia)

POS-MON-114 13:30 - 14:30

Hyperthermia-induced reduction of mesenteric blood flow inhibited by nitric oxide synthase inhibition within the paraventricular nucleus in rats

Chen, F., Cham, J.L., Wang, Y.L. and Badoer, E. (Australia and China)

POS-MON-115 12:30 - 13:30

Individual differences in cardiovascular response to footshock but not shaker stress predict contextual fear condition in rats

Hawkes, D.J., Choy, K.H.C. and Mayorov, D.N. (Australia)

POS-MON-116 13:30 - 14:30

Different stressors activate different patterns of premotor sympathetic groups

McConnell, A. and Carrive, P. (Australia)

POS-MON-117 12:30 - 13:30

The effects of hemorrhagic shock and resuscitation on intra-abdominal pressure

Yoshino, O., Quail, A. and Balogh, Z. (Australia)

LIMBIC AND OTHER BRAIN SYSTEMS

Posters 118 to 125

POS-MON-118 13:30 - 14:30

Evidence for a GABAergic connection between the central nucleus of the amygdala and the periaqueductal gray in the mouse

Shivapathasundram, G., Chieng B.C. and **Carrive, P.** (Australia)

POS-MON-119 12:30 - 13:30

Physiological properties of the parabrachial-central amygdaloid synapse in a rat model of neuropathic pain

Denny, J.C., Crane, J.W. and Delaney, A.J. (Australia)

POS-MON-120 13:30 - 14:30

Effect of PraescentTM on stress-induced changes in the basolateral amygdala

Mu, E., Spiers, J.G., Noakes, P.G. and Lavidis, N.A. (Australia)

POS-MON-121 12:30 - 13:30

Evidence of a GABAergic projection from the central nucleus of the amygdala to the ventrolateral periaqueductal gray

Olsen, N.D., Kumar, N.N., Goodchild, A.K. and Carrive, P. (Australia)

POS-MON-122 13:30 - 14:30

Catecholamine neurotransmission in the orbital frontal cortex evoked by stimulation of the ventral tegmental area

Tye, S.J., Covey, D.P., Griessenauer, C.J., Garriss, P.A. and Lee, K.H. (USA and Australia)

POS-MON-123 12:30 - 13:30

Topographical specificity of respiratory regulation by the dorsolateral periaqueductal grey

Iigaya, K., Horiuchi, J., McDowall, L.M. and Dampney, R.A.L. (Australia)

POS-MON-124 13:30 - 14:30

Intensity-dependent brain responses during capsaicin inhalation

Farrell, M.J., Cole, L.J., Chiapoco, D. and Mazzone, S. (Australia)

POS-MON-125 12:30 - 13:30

Hypothalamic regions activated during voluntary exercise and airpuff startle

Lam, A.C.B., Horiuchi, J., McDowall, L.M., Furlong, T., Iigaya, K., Polson, J.W. and Dampney, R.A.L. (Australia)

NEURAL DEVELOPMENT I

Posters 126 – 149

POS-MON-126 13:30 - 14:30

The role of neogenin and its ligand, RGMA, in differentiation in the adult brain

Bradford, D. and Cooper, H.M. (Australia)

POS-MON-127 12:30 - 13:30

The fovea and area dorsalis develop independently in the pigeon (*Columba livia*) retina

Bumsted O'Brien, K. and Hickey, D. (Australia)

POS-MON-128 13:30 - 14:30

Methodologies for the specific isolation of midbrain dopamine neurons for gene and protein expression profiling

Bye, C.R., Blakely, B.D., Fernando, C.V., Horne, M.K., Thompson, L.H. and Parish, C.L. (Australia)

POS-MON-129 12:30 - 13:30

The role of tyrosine hydroxylase during early dopamine development in the zebrafish embryo (*Danio rerio*)

Formella, I., Scott, E.K., McGrath, J.J., Burne, T.H.J. and Eyles, D.W. (Australia)

POS-MON-130 13:30 - 14:30

Molecular characterisation of targeted proliferative cells

Cavanagh, B., Poulson, S., Jesuadian, S., Dwyer, P., Nguyen, M., Bellette, B., Karunaratne, A., Vaswani, K., Mackay-Sim, A. and Meedeniya, A.C.B. (Australia)

POS-MON-131 12:30 - 13:30

Zebrafish nicastrin is required for mid and hindbrain development

Chong, S.W., Amsterdam, A., Ang, H.S., Yang, H., Hopkins, N. and Jiang, Y.J. (Singapore)

POS-MON-132 13:30 - 14:30

Role of insulin-regulated aminopeptidase (IRAP) in embryonic neurogenesis

Diwakarla, S., Burns, P., Albiston, A. and Chai, S.Y. (Australia)

POS-MON-133 12:30 - 13:30

The oligodendrocyte specific transcriptional regulator MRF is vital for oligodendrocyte development and CNS myelination

Emery, B., Agalliu, D., Watkins, T., Cahoy, J., Mulinyawe, S. and Barres, B.A. (Australia and USA)

POS-MON-134 13:30 - 14:30

Oligodendrocyte lineage elaboration in human fetal spinal cord derived neural precursor cells

Lovelace, M.D., Weible, M.W. and Chan-Ling, T. (Australia)

POS-MON-135 12:30 - 13:30

Analysis of the role of oligodendrocyte expressed TrkB in oligodendrocyte myelination

Wong, A.W., Xiao, J., Kemper, D., Kilpatrick T.J. and Murray, S.S. (Australia)

POS-MON-136 13:30 - 14:30

Diffusion MR anisotropy predictors of cerebral cortical folding in a fetal sheep model

Geng, G., Johnston, L., Yan, E., Britto, J., Walker, D. and Egan, G. (Australia)

POS-MON-137 12:30 - 13:30

A computational model of the patterns of gene expression underlying cortical area development

Giacomantonio, C.E. and Goodhill, G.J. (Australia)

POS-MON-138 13:30 - 14:30

Ndfip1 expression in the cerebral cortex

Goh, C.P., Putz, U. and Tan, S.S. (Australia)

POS-MON-139 12:30 - 13:30

Cortical development in the Tc1 mouse; a model of Down Syndrome

Haas, M., Tybulewicz, V., Fisher, E. and Guillemot, F. (UK)

POS-MON-140 13:30 - 14:30

Ndfip1 regulates cortical neuron numbers and is required for dendritic complexity

Hammond, V.E., Howitt, J., Gunnersen, J.M., Thomson, R., Hyakumura, T., Dixon, M.P., Thomas, T., Voss, A.K. and Tan, S.-S. (Australia)

POS-MON-141 12:30 - 13:30

Brain development and behaviour in a mouse model of developmental vitamin D (DVD) deficiency

Harms, L.R., Eyles, D.W., McGrath, J.J. and Burne, T.H.J. (Australia)

POS-MON-142 13:30 - 14:30

Olfactory progenitors respond differentially to GDNF and neurturin

Kaplinovsky, T. and Cunningham, A. (Australia)

POS-MON-143 12:30 - 13:30

EphA4 inhibits neural precursor proliferation in the adult hippocampus

Newcombe, E.A., Li, L., Spanevello, M.D., Boyd, A.W. and Bartlett, P.F. (Australia)

POS-MON-144 13:30 - 14:30

Identification and characterisation of new signalling pathways for Rnd proteins during mouse brain development

Qu, Z.D., Tan, S.-S. and Heng, J.I. (Australia)

POS-MON-145 12:30 - 13:30

Sirt1 signalling suppresses neuronal differentiation in adult neural precursor cells

Saharan, S., Jhaveri, D. and Bartlett, P.F. (Australia)

POS-MON-146 13:30 - 14:30

Isolation of human neuron restricted precursor cells from fetal spinal cord derived histotypic spheres

Weible II, M.W. and Chan-Ling, T. (Australia)

POS-MON-147 12:30 - 13:30

The migratory behaviour of individual neural crest-derived cells in the embryonic gut

Bergner, A.J., Newgreen, D.F., Young, H.M. and Enomoto, H. (Australia and Japan)

POS-MON-148 13:30 - 14:30

Differential gene expression in migrating cortical interneurons during mouse forebrain development

Faux, C.H., Rakic, S., Andrews, W. and Parnavelas, J.G. (Australia and UK)

POS-MON-149 12:30 - 13:30

Stage-specific roles for MiR-134 in neuronal precursor cell survival and post-mitotic neuronal migration

Gaughwin, P.M., Yang, H., Rigoutsos, I., Lim, B. and Brundin, P. (Sweden, Singapore and USA)

SENSORY SYSTEMS I

Posters 150 to 197

POS-MON-150 13:30 - 14:30

Chronic constriction injury alters the IB4 binding capacity of spared nociceptors known to express IB4 binding sites prior to injury

Gerke-Duncan, M.B., Van Dantzig, T., Rahman, S., Skarratt, N. and Walker, S. (Australia)

POS-MON-151 12:30 - 13:30

Distinct microdomains of putative glutamatergic and peptidergic nociceptors in lamina I of mouse lumbar dorsal horn

Anderson, R.L., **Clarke, J.N.**, Buckley, N.C., Vilimas, P.I., Haberberger, R.V. and Gibbins, I.L. (Australia)

POS-MON-152 13:30 - 14:30

Changes in expression of serotonin synthesising enzymes in trigeminal ganglia of cycling female mice

Asghari, R. and Connor, M. (Australia)

POS-MON-153 12:30 - 13:30

Absence of sphingosine kinase 1 expression changes the neurochemical characteristics of cultured murine dorsal root ganglion neurons but did not change the response to inflammation

Tam Tam S., Chegeni, N., Gibbins, I.L., Kress, M. and Haberberger, R.V. (Australia and Austria)

POS-MON-154 13:30 - 14:30

Trigeminal and spinal dorsal horn discontinuity and avian evolution

Krutzfeldt, N.O.E. and Wild, J.M. (New Zealand)

POS-MON-155 12:30 - 13:30

The effects of delayed OECs transplantation on pain responses after dorsal root injury

Wu, A., Lauschke, J.L. and Waite, P.M.E. (Australia)

POS-MON-156 13:30 - 14:30

Inducible nitric oxide synthase expression in the primary olfactory pathway of wild type, CX3CR1^{+GFP} and CX3CR1^{GFP/GFP} mice following damage and bacterial challenge

Harris, J.A., West, A.K., Ruitenber, M.J. and **Chuah, M.I.** (Australia)

POS-MON-157 12:30 - 13:30

Adult olfactory precursor cell proliferation and differentiation is mediated by the neuropeptide Y signalling pathway

Doyle, K.L., Hort, Y., Shine, J. and Herzog, H. (Australia)

POS-MON-158 13:30 - 14:30

Communication between two neurogenic zones in the adult mouse nervous system

Meedeniya, A.C.B., Dwyer, P., Chehrehasa, F. and Mackay-Sim, A. (Australia)

POS-MON-159 12:30 - 13:30

Immunolocalisation of brain derived neurotrophic factor (BDNF) and receptor TrkB in the human brainstem medulla

Tang, S., Machaalani, R. and Waters, K.A. (Australia)

POS-MON-160 13:30 - 14:30

Peripheral and central projections of mid-size sensory neurons containing calcitonin gene-related peptide but not substance P in mice

Kestell, G., Anderson, R.L., Clarke, J.N., Haberberger, R.V. and Gibbins, I.L. (Australia)

POS-MON-161 12:30 - 13:30

Identification of glycinergic neurons in guinea pig cochlear nucleus and their connections with auditory brainstem circuitry

Walsh, L., Robertson, D. and Mulders, W. (Australia)

POS-MON-162 13:30 - 14:30

Developmental regulation of TRPC3 expression in the mouse cochlea

Phan, P.A.B., Tadros, S.F., **Kim, Y.**, Birnbaumer, L. and Housley, G.D. (Australia)

POS-MON-163 12:30 - 13:30

Cocultures of stem cell-derived neural crest-like progenitors with cochlear explants

Nayagam, B., Edge, A. and Dottori, M. (Australia and USA)

POS-MON-164 13:30 - 14:30

Auditory neuron survival following implantation of encapsulated BDNF-expressing Schwann cells into the deaf guinea pig cochlea

Pettingill, L.N., Wise, A.K., Geaney, M. and Shepherd, R.K. (Australia and New Zealand)

POS-MON-165 12:30 - 13:30

Expression patterns of somatostatin receptors subtypes sst1 and sst2 suggest important functional role in auditory hair cells

Radojevic, V., Setz, C., Brand, Y., Hanusek, C. and Bodmer, D. (Switzerland)

POS-MON-166 13:30 - 14:30

P2X₂ and VILIP1 co-expression in the mouse cochlea and vestibular system

Tadros, S.F. and Housley, G.D. (Australia)

POS-MON-167 12:30 - 13:30

Selective changes in expression of a potassium channel in an inner ear pumping epithelium

Layton, M., Housley, G.D., Rodger, J. and **Robertson, D.**
(Australia)

POS-MON-168 13:30 - 14:30

Neurotrophins and auditory nerve function

Sly, D., Minter, R., Heffer, L., Hampson, A., Li, J., Nelson, N., Manning, E., Winata, L., Shepherd, R. and O'Leary, S. (Australia)

POS-MON-169 12:30 - 13:30

Post-exposure administration of adenosine receptor agonists mitigates noise-induced cochlear injury

Wong, A.C.Y., Guo, C.X., Lee, K.H., Gupta, R., Housley, G.D., Thorne, P.R. and Vlajkovic, S.M. (New Zealand, Australia)

POS-MON-170 13:30 - 14:30

The p75 neurotrophin receptor protects primary auditory neurons against acoustic trauma in mice

Tan, J., Clarke, M., Barrett, G. and Millard, R. (Australia)

POS-MON-171 12:30 - 13:30

Tracking the expression of GAD-67 and GABA_A receptor $\alpha 1$ subunit in multiple nuclei of the auditory pathway following noise-induced hearing loss

Browne, C.J., Kueh, S.L., Morley, J.W. and Parsons, C.H.
(Australia)

POS-MON-172 13:30 - 14:30

In vivo detection of cochlear inflammation using magnetic resonance imaging

Le Floc'h, J., Pontre, B., Telang, R.S., Tan, W., Vlajkovic, S.M. and **Thorne, P.R.** (New Zealand)

POS-MON-173 12:30 - 13:30

PLZF-deficient mouse mutants do not generate conditioning-mediated protection from acoustic trauma

Peppi, M., Kujawa, S.G. and Sewell, W.F. (USA)

POS-MON-174 13:30 - 14:30

Individual micro-RNA expression is down regulated in primary cultured sensory neurons and changes in response to substrate and NGF

Bastian, I., Tam Tam, S., Gibbins, I.L., Zhou, X.F., Michael, M.Z., Rogers, M.L. and Haberberger, R.V. (Australia)

POS-MON-175 12:30 - 13:30

A novel neurotrophic factor supports spiral ganglion neuron survival and their electrical responsiveness *in vivo*

Fransson, A.E., Joergensen, J.R., Kalkkinen, N., Wahlberg, L. and Ulfendahl, M. (Sweden and Finland)

POS-MON-176 13:30 - 14:30

Peripherin inhibits neuritogenesis from Type II spiral ganglion neurons in the neonatal mouse cochlea *in vitro*

Barclay, M., Julien, J.P., Ryan, A.F. and Housley, G.D. (New Zealand)

POS-MON-177 12:30 - 13:30

Protection of spiral ganglion neurons with neurotrophins and chronic electrical stimulation

Wise, A.K., Fallon, J.B., Evans, A.J., Andrew, J., Pettingill, L.N., Geaney, M.S. and Shepherd, R.K. (Australia and New Zealand)

POS-MON-178 13:30 - 14:30

Effects of long-term deafness and delayed chronic intracochlear electrical stimulation on the primary auditory cortex

Fallon, J.B., Irvine, D.R.F., Evans, A.J., Landry, T.G. and Shepherd, R.K. (Australia)

POS-MON-179 12:30 - 13:30

Frequency discrimination using microstimulation of the cochlear nucleus: a behavioural investigation

Morgan, S.J. and Paolini, A.G. (Australia)

POS-MON-180 13:30 - 14:30

Temporal properties of dendritic processing in octopus cells of the posteroventral cochlear nucleus

Spencer, M.J., Bruce, I.C., Grayden, D.B., Meffin, H. and Burkitt, A.N. (Australia, Canada)

POS-MON-181 12:30 - 13:30

A detailed cochlear nucleus network model: constraining parameters using experimental data

Eager, M.A., Grayden, D.B., Meffin, H. and Burkitt, A.N. (Australia)

POS-MON-182 13:30 - 14:30

Midbrain responses to microstimulation of the cochlea using multi-channel thin-film electrodes

Allitt, B., Morgan, S.J., Bell, S., Nayagam, D., Arhatari, B., Clark, G.M. and Paolini, A.G., (Australia)

POS-MON-183 12:30 - 13:30

In vitro epiretinal stimulation using a hexagonal electrode arrangement

Abramian, M., Dokos, S. and Lovell, N.H. (Australia)

POS-MON-184 13:30 - 14:30

Focal activation of visual cortex through suprachoroidal electrical stimulation of the retina

Hadjinicolaou, A.E., Hietanen, M.A., Suaning, G.J., Ibbotson, M.R. and Cloherty, S.L. (Australia)

POS-MON-185 12:30 - 13:30

Cannabinoids modify the visual signal in the retina

Middleton, T.M. and Protti, D.P. (Australia)

POS-MON-186 13:30 - 14:30

The effects of drug-simulation on the responses of retinal ganglion cells of adult mice

Huang, J.Y. and Protti, D.A. (Australia)

POS-MON-187 12:30 - 13:30

Intrinsic physiological properties of rat retinal ganglion cells

Wong, R.C.S., Sunder, Raj D., Cloherty, S.L., Ibbotson, M.R. and O'Brien, B.J. (Australia)

POS-MON-188 13:30 - 14:30

TTX-resistant voltage gated sodium currents are expressed in mouse retinal ganglion cells

Park, S.J.H. and **O'Brien, B.J.** (New Zealand and Australia)

POS-MON-189 12:30 - 13:30

Spatial tuning properties of excitatory and inhibitory synaptic inputs onto primate retinal ganglion cells

Protti, D.A., Vonhoff, C.R., Di Marco, S. and Solomon, S.G. (Australia)

POS-MON-190 13:30 - 14:30

Modelling of on and off retinal ganglion cells (RGCs)

Kameneva, T., Meffin, M. and Burkitt, A.N. (Australia)

POS-MON-191 12:30 - 13:30

Morphological classes of retinal ganglion cells in the pigeon retina

Querubin, A., O'Brien, B.J. and Bumsted O'Brien, K.M. (Australia)

POS-MON-192 13:30 - 14:30

Uniformity detector ganglion cells in rabbit retina

Sivyer, B., Taylor, W.R. and Vaney, D.I. (Australia and USA)

POS-MON-193 12:30 - 13:30

Orientation selective cells in the lateral geniculate nucleus of marmosets

Cheong, S.K., Lim, J.K.H., Tailby, C., Solomon, S.G. and Martin, P.R. (Australia)

POS-MON-194 13:30 - 14:30

Contribution of wide-field ganglion cells to central vision in primate retina

Percival, K.A., Martin, P.R. and Grunert, U. (Australia)

POS-MON-195 12:30 - 13:30

Local motion detection: temporal and spatial modulation of gain and transient responses to features in natural images

Barnett, P.D., Nordström, K. and O'Carroll, D.C. (Australia and Sweden)

POS-MON-196 13:30 - 14:30

Honeybee neurobiology - movement detection in the honeybee (*Apis mellifera*)

Hung, Y.S., Van Kleef, J., Gert, S. and Ibbotson, M. (Australia)

POS-MON-197 12:30 - 13:30

Feature-detecting neurons in the dragonfly and their electrophysiological responses to natural stimuli

Wiederman, S.D. and O'Carroll, D.C. (Australia)

NEUROPHYSIOLOGY, TRANSMISSION AND EXCITABILITY I
Posters 198 to 223

POS-MON-198 13:30 - 14:30

Post-synaptic GABA_A receptor numbers are reduced in Purkinje cells of the dystrophin-deficient *mdx* mouse

Kueh, S.L.L., Head, L.I. and Morley, J.W. (Australia)

POS-MON-199 12:30 - 13:30

GABA-B receptors regulate the excitability of cortical layer 5 pyramidal neurons via location-dependent mechanisms

Breton, J.D. and Stuart, G.J. (Australia)

POS-MON-200 13:30 - 14:30

Ligand-induced conformational changes in the $\alpha 1\beta 2\gamma 2$ GABA-A receptor probed using voltage-clamp fluorometry

Wang, Q., Pless, S.A. and Lynch, J.W. (Australia)

POS-MON-201 12:30 - 13:30

Location of NR2B subunit-containing NMDA receptors and their contribution to different forms of LTP

Lohmann, P., Johnstone, V.P.A. and Raymond, C.R. (Australia)

POS-MON-202 13:30 - 14:30

Effects of KA-induced seizure on EGFP interneurons and nNOS expression in the GIN mice CA3 region

Mohd Ali, S.H., Cosgrave, A.S. and Thippeswamy, T. (Malaysia and UK)

POS-MON-203 12:30 - 13:30

Group 1 metabotropic glutamate receptors tonically regulate synaptic GABA_A receptor function in midbrain neurons

Drew, G.M., Mitchell, V.M. and Vaughan, C.W. (Australia)

POS-MON-204 13:30 - 14:30

Angiotensin II (Ang II) decreases glutamatergic synaptic transmission in rat superficial medullary dorsal horn

Rohampour, K., Williams, M., Allen, A.M. and Jennings, E.A. (Australia and Iran)

POS-MON-205 12:30 - 13:30

N-arachidonyl-glycine inhibits glycine transport in rat superficial dorsal horn

Jeong, H.-J., Vandenberg, R.J. and Vaughan, C.W. (Australia)

POS-MON-206 13:30 - 14:30

The intra-cortical origin of absence-like seizures in the GAERS model is located in the somatosensory S2 cortex

Zheng, T., Morris, M.J., Jovanovska, V., van Raay, L., Gandrathi, A., Reid, C.A., O'Brien, T.J. and Pinault, D. (Australia and France)

POS-MON-207 12:30 - 13:30

Inhibition in the lateral vestibular nucleus

Stitt, I.M., Drury, H., Ford, D., Callister, R.J., Brichta, A.M. and

Lim, R. (Australia)

POS-MON-208 13:30 - 14:30

Effects of simvastatin and 6-hydroxydopamine lesion on histaminergic H1 receptor binding in rat brains

Hu, C.H., Deng, C., Huang, X.-F., Chen, J. and Wang, Q. (Australia and China)

POS-MON-209 12:30 - 13:30

Activation of α_1 -Adrenergic receptor in layer II/III pyramidal neurones in somatosensory cortex of rat causes calcium release from stores

Choy, J. and Stricker, C. (Australia)

POS-MON-210 13:30 - 14:30

Interferon-induced functional changes in 5-HT_{2C} receptors and Kv1 channels in mouse brain

Raymond, C.R., Frese, M., Matthaai, K.I. and Kole, M.H.P. (Australia)

POS-MON-211 12:30 - 13:30

Comparative electrophysiological properties of *Locus coeruleus* neurons in young and adult mice

de Oliveira, R.B., Howlett, M.C., Gravina, F.S., Callister, R.J., Brichta, A.M. and Van Helden, D.F. (Australia and The Netherlands)

POS-MON-212 13:30 - 14:30

Sodium and potassium conductances in principal cells of the piriform cortex

Ikeda, K., Suzuki, N. and Bekkers, J.M. (Australia)

POS-MON-213 12:30 - 13:30

Action potential backpropagation in cortical interneurons

Gooch, H., **Cavazzini, M.G.**, Palmer, L., Kole, M. and Stuart, G. (Australia)

POS-MON-214 13:30 - 14:30

The slow-AHP modulates back propagation of action potentials

Power, J.M., Curby, P.G., Bocklisch, C. and Sah, P. (Australia)

POS-MON-215 12:30 - 13:30

The impact of dendritic spikes on extracellular electrophysiological recordings in vivo

Bock, T., Murayama, M., Palmer, L.M. and Larkum, M.E.

(Switzerland and Australia)

POS-MON-216 13:30 - 14:30

In vivo two photon imaging and ultrastructural analysis of short-term dendritic spine plasticity in apical dendrites of layer V pyramidal neurons

Chuckowree, J., Holtmaat, A., Welker, E. and Knott, G.

(Australia and Switzerland)

POS-MON-217 12:30 - 13:30

Electrophysiological properties of heterologously-expressed Nav 1.2 voltage-gated sodium currents

French, C. (Australia)

POS-MON-218 13:30 - 14:30

Postnatal refinement of synaptic dynamics between layer 5 pyramidal neurons in rat visual cortex

Etherington, S.J. and Williams, S.R. (UK and Australia)

POS-MON-219 12:30 - 13:30

A two-step procedure to fit synapse models to experimental data

Mohan, A. and Stricker, C. (Australia)

POS-MON-220 13:30 - 14:30

Dendritic spines promote synaptic egalitarianism

Gulledge, A.T. and **Stuart, G.J.** (USA and Australia)

POS-MON-221 12:30 - 13:30

Interactions between cortical inhibition and short-interval cortical facilitation (SICF)

Cash, R.F.H., Ziemann, U. and Thickbroom, G.W. (Australia and Germany)

POS-MON-222 13:30 - 14:30

Two layers of synaptic processing by principal neurons in the piriform cortex

Suzuki, N. and Bekkers, J.M. (Australia)

POS-MON-223 12:30 - 13:30

Opioid and cannabinoid disinhibition of a descending analgesic pathway in the periaqueductal grey

Lau, B.K. and Vaughan, C.W. (Australia)

TECHNIQUES IN NEUROSCIENCE AND PHYSIOLOGY

Posters 224 to 235

POS-MON-224 13:30 - 14:30

Qualitative comparison of phase response curve estimation methods using model and experimental data

Torben-Nielsen, B., Uusisaari, M. and Stiefel, K.M. (Japan)

POS-MON-225 12:30 - 13:30

White noise conditioning of the vestibular evoked myogenic potential (VEMP)

Chong, H. and Burne, J. (Australia)

POS-MON-226 13:30 - 14:30

Using photorhodopsins to probe neuronal circuitry

Gooch, H.M., Sedlak, P. and Sah, P. (Australia)

POS-MON-227 12:30 - 13:30

A preparation for studying axon regeneration and descending synaptic connections after spinal cord injury in mice

Flynn, J.R., Galea, M.J., Brichta, A.M., Callister, R.J. and Graham, B.A. (Australia)

POS-MON-228 13:30 - 14:30

Receptor-mediated gene delivery into microglia via scavenger receptor class B, type 1

Malmevik, J.M., Rogers, M.-L., Nilsson, M., Nakanishi, Y., Rush, R.A., Sims, N.R. and **Muyderman, H.** (Australia, Sweden and Japan)

POS-MON-229 12:30 - 13:30

Transfection efficiency and toxicity of p75^{NTR} targeted non-viral delivery in wild type and SOD1^{G93A} primary motor neuron cultures

Matusica, D., Rogers, M.-L., Muyderman, H. and Rush, R.A. (Australia)

POS-MON-230 13:30 - 14:30

A method for measurement of dynamic middle cerebral artery pressure in a rat stroke model

McLeod, D., Calford, M. and Spratt, N. (Australia)

POS-MON-231 12:30 - 13:30

Effects of attention on multifocal pupillographic responses

Rosli, Y., Maddess, T., Ho, Y., Wong, S., Kolic, M., Goh, X.L., Carle, C. and James, A.C. (Australia, Malaysia)

POS-MON-232 13:30 - 14:30

Automated analysis of multidimensional brain images

Tuxworth, G., Alvai, A., Nguyen, M., Cavanagh, B., Blumenstein, M., Mackay-Sim, A. and Meedeniya, A.C.B. (Australia)

POS-MON-233 12:30 - 13:30

Progressive structural and functional cerebral changes following traumatic brain injury in the rat

Cardamone, L., Liu, Y.R., Hogan, R.E., Gregoire, M.C., Williams, J.P., Hicks, R.J., Jones, N.C., Myers, D.E., Bouillere, V. and O'Brien, T.J. (Australia, USA and France)

POS-MON-234 13:30 - 14:30

Magnetic resonance spectroscopic variations between hemispheres

Bull, N., Stanwell, P. and **Hunter, M.** (Australia and USA)

POS-MON-235 12:30 - 13:30

A novel intraluminal fibre optic catheter records high resolution longitudinal and circumferential gastrointestinal motility in isolated mammalian intestine

Dinning, P.G., Arwright, J., Szczesniak, M.M., Brookes, S.J., Costa, M. and Spencer, N.J. (Australia)

LATE POSTERS (Not sorted by theme)

Posters 236 to 251

POS-MON-236 13:30 - 14:30

Illuminating PhD research as a career path for undergraduates

McAllan, B.M., Mackertich, M., Pearlman, A., Simmons, E., Treble, A. and **Phillips, W.D.** (Australia)

POS-MON-237 12:30 - 13:30

Using a panel of immuno and histochemical markers to map the marmoset amygdala

Watson, C., Paxinos, G., Tokuno, H. and **Hobbs, M.** (Australia and Japan)

POS-MON-238 13:30 - 14:30

Identification of sodium-hydrogen regulatory factors in the choroid plexus

Rayfield, A., Poronnik, P., Pow, D.V. and Lee, A. (Australia)

POS-MON-239 12:30 - 13:30

Voluntary running reverses age-associated cognitive decline in the place task of the aged rodent

Siette, J., Westbrook, R.F., Sachdev, P. and Valenzuela, M. (Australia)

POS-MON-240 13:30 - 14:30

Evidence for a new "load and lock" model of the TrkA and p75NTR high-affinity NGF receptor complex Sykes, A.M., Abankwa, D., Palstra, N., Hancock, J.F. and **Coulson, E.J.** (Australia)

POS-MON-241 12:30 - 13:30

Evidence for Q_o site of mitochondrial complex III as the source of increased production of superoxide in cardiac myocytes after transient exposure to hydrogen peroxide

Viola, H.M., Ingley, E. and **Hool, L.C.** (Australia)

POS-MON-242 13:30 - 14:30

An improved open channel structure of MscL

Corry, B., Hurst, A.C., Pal, P., Rigby, P. and **Martinac, B.** (Australia)

POS-MON-243 12:30 - 13:30

GABA_A receptors increase their conductance through novel protein interactions

Tierney, M.L., Everitt, A.B., Seymour, V.A.L., Curmi, J. and Laver, D.R. (Australia)

POS-MON-244 13:30 - 14:30

L-DOPA is incorporated into proteins by dopaminergic neurones and can cause apoptotic cell death

Wang, S. and Rodgers, K. (Australia)

POS-MON-245 12:30 - 13:30

Reduced theoretical estimates of the electrotonic length constant for neuroprosthetic electrical stimulation

Meffin, H. and Kameneva, T. (Australia)

POS-MON-246 13:30 - 14:30

Adult canine neurogenesis: a dorsal versus ventral hippocampal gradient?

Lowe, A.K., Dalton, M.A., Sachdev, P., Sidhu, K.S. and Valenzuela, M.J. (Australia)

POS-MON-247 12:30 - 13:30

Contribution of NMDA receptors to synaptic transmission in layer 5 of the medial prefrontal cortex

Marek, R. and Faber, E.S.L. (Australia)

POS-MON-248 13:30 - 14:30

Linking the brain and heart: alterations in cardiac function and HCN channel expression in genetically epileptic rats

Ng, C., Urmaliya, V., Powell, K.L., **Kennard, J.T.T.**, Jones, N.C., Megatia, I., Pinault, D., White, P. and O'Brien, T.J. (Australia and France)

POS-MON-249 12:30 - 13:30

Synaptic organization of MSO principal neurons in hearing, deaf and cochlear-implanted cats

Tirko, N.N., Pongstaporn, T. and **Ryugo, D.K.** (USA)

POS-MON-250 13:30 - 14:30

α 4/7-conotoxin RegIIA selectively targets the α 3 β 2 nAChR

Franco, A., Nevin, S., Akondi, K., Melaun, C., Daly, N., Luetje, C., Alewood, P., Craik, D., Adams, D. and **Mari, F.** (USA, Australia and Germany)

POS-MON-251 12:30 - 13:30

Glycated proteins inhibit K⁺ channels in isolated vascular smooth muscle cells

Yang, Y., de Dios, S., Jenkins, A.J., Davis, M.J. and **Hill, M.A.**
(USA and Australia)

POSTER SESSION B – TUESDAY 2 FEBRUARY 2010

12:00 – 14:00

POSTER SESSION B

Location: Bayside Grand Hall

Presenters for odd numbered posters in attendance 12:00 – 13:00

Presenters for even numbered posters in attendance 13:00 – 14:00

Posters 001 – 001	Exercise
Posters 002 – 022	Neural Development II
Posters 023 – 030	Endocrinology, Reproduction and Fetal Development
Posters 031 – 039	Metabolism
Posters 040 – 061	Muscle and Motor Systems
Posters 062 – 095	Smooth Muscle and Autonomic Nervous System
Posters 096 – 109	Cell Signalling
Posters 110 – 136	Neurophysiology, Transmission and Excitability II
Posters 137 – 172	Sensory Systems II
Posters 173 – 202	Cognition and Behaviour
Posters 203 – 236	Neurological and Psychiatric Conditions II
Posters 236 – 250	Late Posters (Not sorted by theme)

EXERCISE

Posters 001 to 001

POS-TUE-001 12:00 - 13:00

Physical exercise activates endogenous neural precursor cells following irradiation of the aging murine brain

Blackmore, D.G., Rietze, R.L., Waters, M.J. and Bartlett, P.F. (Australia)

NEURAL DEVELOPMENT II

Posters 002 to 022

POS-TUE-002 13:00 - 14:00

Tropomyosin isoforms differentially impact on the branching of processes in differentiated B35 neuroblastoma cells

Fath, T., Bryce, N., Connor, A., Schevzov, G. and Gunning, P.W. (Australia)

POS-TUE-003 12:00 - 13:00

Cancelled

POS-TUE-004 13:00 - 14:00

The role of Nedd4-2 in neurite development

Donovan, P.J. and Poronnik, P. (Australia)

POS-TUE-005 12:00 - 13:00

The serine protease inhibitor neuroserpin regulates dendritic protrusion number and dendritic spine morphology

Borges, V.M., Lee, T.W., Christie, D.L. and Birch, N.P. (New Zealand)

POS-TUE-006 13:00 - 14:00

Spatial learning deficits in Ten_m knockout mice

Bourke, M.D., Haast, R., Young, T.R., Fassler, R., Leamey, C.A. and Sawatari, A. (Australia, German)

POS-TUE-007 12:00 - 13:00

Ten-m3 is expressed in matching gradients in the developing visual system of the wallaby, *Macropus eugenii*

Carr, O.P., Glendining, K.A., Leamey, C.A. and Marotte, L.R. (Australia)

POS-TUE-008 13:00 - 14:00

Mechanisms underlying the role of Ten-m3 in visual development

Glendining, K.A., Nguyen, M., Dharmaratne, N., Sawatari, A. and Leamey, C.A. (Australia)

POS-TUE-009 12:00 - 13:00

Ten_m3: roles in the development of the rodent striatum

Tran, H., Sawatari, A. and Leamey, C.A. (Australia)

POSTER SESSION B – TUESDAY 2 FEBRUARY 2010

POS-TUE-010 13:00 - 14:00

Semaphorin3A is involved in the areal development of the nonhuman primate visual cortex

Homman-Ludiye, J. and Bourne, J.A. (Australia)

POS-TUE-011 12:00 - 13:00

Structural changes in dendritic arbors of striatal medium spiny neurons coincides with key postnatal developmental events in the mouse

Lee, H. and Sawatari, A. (Australia)

POS-TUE-012 13:00 - 14:00

STIM1 regulates SOCE, and is necessary for growth cone turning

Mitchell, C.B., Gasperini, R., Small, D.H. and Foa, L. (Australia)

POS-TUE-013 12:00 - 13:00

Axon guidance by growth rate modulation dominates over biased turning in shallow gradients

Pujic, Z., Mortimer, D., Vaughan, T., Thompson, A.W., Feldner, J., Vetter, I. and Goodhill, G.J. (Australia)

POS-TUE-014 13:00 - 14:00

A unifying model of retinotectal map formation reveals a critical role for axon-axon interactions

Simpson, H.D. and Goodhill, G.J. (Australia)

POS-TUE-015 12:00 - 13:00

Changes in lysosomal-like activity during development of hearing in rat auditory brainstem

Xian, S., Sen, M. and Rodriguez-Contreras, A. (USA)

POS-TUE-016 13:00 - 14:00

Regulation of motoneuron survival and innervation during embryonic development

Fogarty, M.J., Yanagawa, Y., Obata, K., Bellingham, M.C. and Noakes, P.G. (Australia and Japan)

POS-TUE-017 12:00 - 13:00

Expression of complement factors in the SOD1^{G93A} mouse model of motor neuron disease

Lee, J.D., Woodruff, T.M., Taylor, S.M. and Noakes, P.G. (Australia)

POSTER SESSION B – TUESDAY 2 FEBRUARY 2010

POS-TUE-018 13:00 - 14:00

Proteomic analysis of spinal cord in response to injury at different development stages in *Monodelphis domestica*
Noor, N.M., Steer, D.L., Ek, C.J., Richardson, S.J., Dziegielewska, K.M. and Saunders, N.R. (Australia)

POS-TUE-019 12:00 - 13:00

Differentially expressed genes in the injured spinal cord of EphA4 knockout mice
Munro, K.M., Perreau, V.M. and Turnley, A.M. (Australia)

POS-TUE-020 13:00 - 14:00

Long term reductions in glutamatergic NMDA and dopaminergic D1 and D2 receptors in the rat brain following adolescent, but not perinatal, MK-801 treatment
Newell, K.A., Dawson, A.E. and Huang, X.F. (Australia)

POS-TUE-021 12:00 - 13:00

Binge drinking and the adolescent brain
Rae, C., Mewton, L., Henry, R.G. and Teesson, M. (Australia)

POS-TUE-022 13:00 - 14:00

Functional recovery and morphological repair following spinal cord injury in the developing opossum (*Monodelphis domestica*)
Wheaton, B.J., Callaway, J.K., Ek, C.J., Dziegielewska, K.M. and Saunders, N.R. (Australia)

ENDOCRINOLOGY, REPRODUCTION AND FETAL DEVELOPMENT Posters 023 to 030

POS-TUE-023 12:00 - 13:00

Concentration of cortisol in human hair under rest and pain conditions
Sharpley, C.F., Kauter, K. and McFarlane, J. (Australia)

POS-TUE-024 13:00 - 14:00

Temporal patterns of bone formation during fetal growth in *Pteropus poliocephalus*
Gear, R.B. and **O'Brien, G.M.** (Australia)

POS-TUE-025 12:00 - 13:00

Characterisation of the aromatase-EGFP transgenic mouse
Chua, H.K., Horne, M. and Boon, W.C. (Australia)

POSTER SESSION B – TUESDAY 2 FEBRUARY 2010

POS-TUE-026 13:00 - 14:00

Interstitial Cells of Cajal in the mouse reproductive tract

Gravina, F.S., Jobling, P., de Oliveira, R.B., Kerr, K.P. and Van Helden, D. (Australia)

POS-TUE-027 12:00 - 13:00

Molecular delivery to the brain using endogenous protein transport

Liddelow, S.A., Dziegielewska, K.M., Noor, N. and Saunders, N.R. (Australia)

POS-TUE-028 13:00 - 14:00

Expression and function of ghrelin and receptors in human endometrial cancer cell lines

Fung, J.H.T. and Chen, C. (Australia)

POS-TUE-029 12:00 - 13:00

Ghrelin and appetite regulation in the spinifex hopping mouse

McLeod, J.L., Trajanovska, S., Chung, S. and Donald, J.A. (Australia)

POS-TUE-030 13:00 - 14:00

A functional role for cannabinoid receptors in the kidney proximal tubules

Jenkin, K.A., Grinfeld, E., McAinch, A.J. and **Hryciw, D.H.** (Australia)

METABOLISM

Posters 031 to 039

POS-TUE-031 12:00 - 13:00

Zucker obese (fa/fa) rats, compared to Sprague-Dawley rats, have fewer episodes of brown adipose tissue (BAT) thermogenesis

Kontos, A., Ootsuka, Y., de Menezes, R. and **Blessing, W.** (Australia, Japan and Brazil)

POS-TUE-032 13:00 - 14:00

Leucine supplementation improves glucose metabolism in offspring from obese dams without affecting feeding regulation

Chen, H. and Morris, M.J. (Australia)

POS-TUE-033 12:00 - 13:00

Central mechanisms of leptin resistance in hyperphagic obese mice with metabolic syndrome

Heydet, D., Larter, C. and Farrell, G. (Australia)

POS-TUE-034 13:00 - 14:00

Novel actin filaments regulate glucose clearance, insulin sensitivity and insulin secretion

Lucas, C.A., Kee, A.J., Szokolai, R.C., Martel, N., Laybutt, R., Leong, G.M., Muscat, G.E.O., James, D.E., Cooney, G.J. and Hardeman, E.C. (Australia)

POS-TUE-035 12:00 - 13:00

Depletion of brain noradrenergic neurons, including locus coeruleus neurons, reduces the frequency of the episodic ultradian occurrences of brown adipose tissue (BAT) thermogenesis

Ootsuka, Y., de Menezes, R. and Blessing, W. (Australia, Japan and Brazil)

POS-TUE-036 13:00 - 14:00

GHS-R mRNA expression levels are increased in the VMH of diet-resistance mice

Yu, Y.H. and Huang, X.F. (Australia)

POS-TUE-037 12:00 - 13:00

Curcumin reduces hepatic and renal toxicity of acetaminophen in rats

Kheradpezhoh, E., Panjehshahin, M.R., Dehpour, A.R. and Rychkov, G. (Iran and Australia)

POS-TUE-038 13:00 - 14:00

Characterisation of the kynurenine pathway in astroglomas

Adams, S., Braidy, N., Grant, R. and Guillemin, G. (Australia)

POS-TUE-039 12:00 - 13:00

Kynurenine pathway metabolism is involved in the maintenance of intracellular NAD concentrations in neurons and astrocytes

Grant, R.S., Nguyen, S. and Guillemin, G. (Australia)

MUSCLE AND MOTOR SYSTEMS

Posters 040 to 061

POS-TUE-040 13:00 - 14:00

Properties of isolated skinned fast-twitch fibres from α -actinin-3 knockout mice

Chan, S., Seto, J.T., Houweling, P.J., Yang, N., North, K.N. and Head, S.I. (Australia)

POS-TUE-041 12:00 - 13:00

Exploring the spread of excitation throughout the tubular network in mammalian skeletal muscle using superfast confocal microscopy

Edwards, J.N., Cully, T.R., Thorn, P., Gilbert, D.G. and Launikonis, B.S. (Australia)

POS-TUE-042 13:00 - 14:00

Overexpression of HSP72 attenuates skeletal muscle pathophysiology in *mdx* dystrophic mice

Gehrig, S.M., Van Der Poel, C., Henstridge, D.C., Schertzer, J.D., Koopman, R., Naim, T., Febbraio, M.A. and Lynch, G.S. (Australia)

POS-TUE-043 12:00 - 13:00

Anti-MuSK autoantibodies cause MuSK activation and internalization leading to disassembly of acetylcholine receptor clusters

Ghazanfari, N., Gervasio, O.L., Cole, R.N., Ngo, S.T., Reddel, S.R. and Phillips, W.D. (Australia)

POS-TUE-044 13:00 - 14:00

Origin of the low-level EMG during the cortical silent period

Taylor, J.L., Gandevia, S.C., Herbert, R.D., Petersen, N.T. and Butler, J.E. (Australia and Denmark)

POS-TUE-045 12:00 - 13:00

Regeneration efficiency in aged/senescent skeletal muscle depends on the type of injury

Gunning, P.W., **Lee, A.S.J.**, Joya, J.E., Head, S.I., Pather, N., Anderson, J.E. and Hardeman, E.C. (Australia, Canada)

POSTER SESSION B – TUESDAY 2 FEBRUARY 2010

POS-TUE-046 13:00 - 14:00

Isotonic force dependent muscle activity in the multi-joint movements

Yamauchi, J. and Ishii, N. (Japan)

POS-TUE-047 12:00 - 13:00

Robust store-operated calcium entry in aged mammalian skeletal muscle

Edwards, J.N., Gilbert, D.F., Blackmore, D.G., Murphy, R.M. and **Launikonis, B.S.** (Australia)

POS-TUE-048 13:00 - 14:00

Modulation of human corticomotor excitability by sensory, motor and noxious stimuli

Chipchase, L.S., Schabrun, S.M. and Hodges, P.W. (Australia)

POS-TUE-049 12:00 - 13:00

A novel rehabilitation tool to promote functional recovery after stroke

Mouawad, M.R., Doust, C.G., Max, M.D. and McNulty, P.A. (Australia)

POS-TUE-050 13:00 - 14:00

Feasibility of measuring voluntary activation after stroke using cortical stimulation

Bowden, J.L. and McNulty, P.A. (Australia)

POS-TUE-051 12:00 - 13:00

Excitability of motor cortical output to human scalenes muscles is altered by lung volume

Butler, J.E., Hudson, A.L., Taylor, J.L., Anand, A. and Gandevia, S.C. (Australia and India)

POS-TUE-052 13:00 - 14:00

Effects of high frequency and theta burst transcranial magnetic stimulation on grip strength

Folmli, B., Turman, B. (Australia)

POS-TUE-053 12:00 - 13:00

Are rat models of rubrospinal tract injury any good to assess recovery of hand function?

Morris, R., Tosolini, A.P., Batten, N.D. and Goldstein, J.D. (Australia)

POSTER SESSION B – TUESDAY 2 FEBRUARY 2010

POS-TUE-054 13:00 - 14:00

Neurons in the locus coeruleus and subcoeruleus nucleus that project to spinal cord are not noradrenergic

Liang, H., Watson, C. and Paxinos, G. (Australia)

POS-TUE-055 12:00 - 13:00

Behaviour of human genioglossus single motor units (SMU) discharge properties in quiet breathing, CO₂ and CPAP

Saboisky, J.P., Eckert, D.J., Jordan, A.S., Trinder, J.A., White, D.P. and Malhotra, A. (Australia)

POS-TUE-056 13:00 - 14:00

The boundaries and contents of the mammalian isthmus revealed by Fgf8 expression

Watson, C.R. (Australia)

POS-TUE-057 12:00 - 13:00

Afferents to the mesencephalic reticular formation

Qi, Y., Paxinos, G. and Watson, C. (Australia)

POS-TUE-058 13:00 - 14:00

The arcuate nucleus of the hindbrain is a displaced inferior olivary component

Fu, Y.H., Paxinos, G. and Watson, C. (Australia)

POS-TUE-059 12:00 - 13:00

Bistability permits rapid transitions between spatiotemporal waves and synchronous spiking activity in a computational model of cortex

Heitmann, S., Gong, P. and Breakspear, M. (Australia)

POS-TUE-060 13:00 - 14:00

Pathogenic role of gene mutations in ALS

Warraich, S.T., Durnall, J.C., Williams, K.L., Yang, S., Thoeng, A.D., Nicholson, G.A. and Blair, I.P. (Australia)

POS-TUE-061 12:00 - 13:00

Expression of voltage-gated sodium channel β -subunits in a mouse model of amyotrophic lateral sclerosis

Zhong, W., Kerr, M.L., Noakes, P.G. and Bellingham, M.C. (Australia)

SMOOTH MUSCLE AND AUTONOMIC NERVOUS SYSTEM
Posters 062 to 095

POS-TUE-062 13:00 - 14:00

Co-ordinating contraction in the pregnant uterus

Davies, M., Tonta, M.A., Li, Q., Iqbal, J., Sheehan, P.M., Coleman, H.A., Lang, R.J. and Parkington, H.C. (Australia)

POS-TUE-063 12:00 - 13:00

Neural SST₁ and SST₂ receptors decrease chloride secretion in the guinea-pig small intestine

Foong, J.P.P., Parry, L.J. and Bornstein, J.C. (Australia)

POS-TUE-064 13:00 - 14:00

Innervated myofibroblasts in the urinary bladder? Functional and ultra-structural evidence

Sadow, S.L., Sadananda, P. and **Burcher, E.** (Australia)

POS-TUE-065 12:00 - 13:00

Effects of a ghrelin receptor agonist at the spinal cord level on urinary bladder contractile activity

Ferens, D., Yin, L., Ohashi-Doi, K., Habgood, M., Gale, J. and Furness, J.B. (Australia and UK)

POS-TUE-066 13:00 - 14:00

c-Fos identification of spinal neurons activated by the urethro-genital reflex in female guinea-pigs

Yuan, S.Y., Vilimas, P.I., Zagorodnyuk, V.P. and Gibbins, I.L. (Australia)

POS-TUE-067 12:00 - 13:00

Disrupted gastric slow wave activity and neuromuscular transmission in a murine model of type 2 diabetes

McDonough, K.J. and **Beckett, E.A.H.** (Australia)

POS-TUE-068 13:00 - 14:00

Slowly propagating motor activity in the isolated rabbit small intestine

Costa, M., Spencer, N., Hennig, G. and Brookes, S.J.H. (Australia and USA)

POS-TUE-069 12:00 - 13:00

Receptors to detect shear in the wall of the colon

Chen, B.N. and Brookes, S.J.H. (Australia)

POSTER SESSION B – TUESDAY 2 FEBRUARY 2010

POS-TUE-070 13:00 - 14:00

Mechanism underlying stretch-activation of colonic migrating motor complexes

Zagorodnyuk, V.P., **Kyloh, M.** and Spencer, N.J. (Australia)

POS-TUE-071 12:00 - 13:00

Downregulation of cannabinoid CB1 receptors in colonic mucosa but not muscle, in females with slow transit constipation

Markus, I., King, D.W., Perera, D.S., Burcher, E. and **Liu, L.** (Australia)

POS-TUE-072 13:00 - 14:00

The effect of plant-derived chemicals on histamine evoked contraction of smooth muscle

Poyton, C.N. and Lavidis, N.A. (Australia)

POS-TUE-073 12:00 - 13:00

PYY availability is unchanged in rat small intestine during a high-fat diet

Grealish, M., Markus, I., Senadheera, S., Bertrand, R.L., Liu, L. and Bertrand, P.P. (Australia)

POS-TUE-074 13:00 - 14:00

Neuronal activity in developing enteric neurons

Hao, M.M., Boesmans, W., Van Den Abbeel, V., Bornstein, J.C., Young, H.M. and Vanden Berghe, P. (Australia and Belgium)

POS-TUE-075 12:00 - 13:00

Axonal damage and plasticity following intestinal inflammation

Nurgali, K., Qu, Z., Hunne, B., Thacker, M., Pontell, L. and Furness, J.B. (Australia)

POS-TUE-076 13:00 - 14:00

Histological changes in the ileum after intestinal ischemia and reperfusion

Pontell, L., Rivera, L.R., Thacker, M. and Furness, J.B. (Australia)

POS-TUE-077 12:00 - 13:00

Identification of a novel neuro-neuronal pathway that underlies peristalsis and fecal pellet propulsion in guinea-pig distal colon

Gregory, S. and Spencer, N. (Australia)

POS-TUE-078 13:00 - 14:00

Nicotinic pathways and their control over cyclical motor patterns underlying colonic propulsion

Costa, M., **Spencer, N.** and Brookes, S.J.H. (Australia)

POS-TUE-079 12:00 - 13:00

Electrophysiological changes in enteric neurons following ischemia/reperfusion injury

Rivera, L.R., Nguyen, T.V., Thacker, M., Pontell, L. and Furness, J.B. (Australia)

POS-TUE-080 13:00 - 14:00

Transabdominal electrical stimulation increases colonic activity in children with chronic constipation

Southwell, B.R., Chase, J., Gibb, S., Clarke, M.M., Ismail, K.A., King, S.K., Reilly, D., Chow, C.S., Catto-Smith, T.G. and Hutson, J.M. (Australia)

POS-TUE-081 12:00 - 13:00

Investigating the contribution of enterochromaffin cell distribution to local 5-HT availability

Tan, K.L., Bertrand, R.L., Senadheera, S., Tanoto, A., Liu, L. and Bertrand, P.P. (Australia)

POS-TUE-082 13:00 - 14:00

Neuronal death and glial cell damage occurs in mouse ileum following intestinal ischemia and reperfusion

Thacker, M., Rivera, L.R., Pontell, L., Castelucci, P., Sharkey, K.A. and Furness, J.B. (Australia, Brazil and Canada)

POS-TUE-083 12:00 - 13:00

Somato-adrenal reflex and upper cervical spinal cord compression - a pilot study

Budgell, B.S. and **Bolton, P.S.** (Canada and Australia)

POS-TUE-084 13:00 - 14:00

Neurovascular transmission is impaired in arteries supplying skin of diabetic rats

Johansen, N.J., Tripovic, D. and **Brock, J.A.** (Australia)

POS-TUE-085 12:00 - 13:00

Differential contribution of neuronal nitric oxide to cerebral arteries of the rat

Chua, A.H.C. and Hill, C.E. (Australia)

POSTER SESSION B – TUESDAY 2 FEBRUARY 2010

POS-TUE-086 13:00 - 14:00

Modulation of muscle sympathetic nerve activity by sinusoidal galvanic vestibular stimulation is lower when delivered at the cardiac frequency

James, C. and Macefield, V.G. (Australia)

POS-TUE-087 12:00 - 13:00

Assymetrical somatosympathetic responses to right and left sciatic nerve stimulation

Korim, W.S., McMullan, S., Cravo, S.L. and Pilowsky, P. (Australia and Brazil)

POS-TUE-088 13:00 - 14:00

Intrathecal orexin A increases sympathetic outflow and respiratory drive and modulate physiological reflexes

Shahid, I.Z. and Pilowsky, P.M. (Australia)

POS-TUE-089 12:00 - 13:00

Non-L-type calcium channels contribute to cerebrovascular function

Kuo, I.Y., Seymour, V.S., Sandow, S.L., Ellis, A. and Hill, C.E. (Australia)

POS-TUE-090 13:00 - 14:00

Cardiac baroreflex delay: how is it reduced by clonidine?

McAllen, R.M., Toader, E., Cividjian, A., Wesseling, K., Karemaker, J. and Quintin, L. (France, Australia and Netherlands)

POS-TUE-091 12:00 - 13:00

Synergy between $\alpha 1$ -adrenoceptor subtypes and with P2X receptors in nerve-induced responses of mouse mesenteric arteries revealed by double and triple knockout strategies

Methven, L., Simpson, P.C., Daly, C.J. and **McGrath, J.C.** (UK and USA)

POS-TUE-092 13:00 - 14:00

Hemorrhagic stroke lesion and the alteration of circadian blood pressure pattern

Nakase, T., Yoshioka, S., Nagata, K. and Suzuki, A. (Japan)

POSTER SESSION B – TUESDAY 2 FEBRUARY 2010

POS-TUE-093 12:00 - 13:00

Dorsomedial hypothalamus and medullary raphe mediate respiratory arousal responses in rats

Beig, M.I., Xavier, C.H., Fontes, M.A.P. and Nalivaiko, E.
(Australia and Brazil)

POS-TUE-094 13:00 - 14:00

Brain activation associated with evoked cough is less than the sum of its parts

Mazzone, S.B., Cole, L.J., Ando, A. and Farrell, M.J.
(Australia)

POS-TUE-095 12:00 - 13:00

Immunohistochemical comparison of neurons in the guinea pig and human nodose ganglion

McGovern, A.E., Lockett, J., Weir, K.A. and Mazzone, S.B.
(Australia)

CELL SIGNALLING

Posters 096 to 109

POS-TUE-096 13:00 - 14:00

DigiGait, a useful method assessing subtle gait abnormalities in NEDD4 transgenic mice

Bongiorno, D., Petratos, S., Kumar, S. and Poronnik, K.
(Australia)

POS-TUE-097 12:00 - 13:00

Receptors in motion: Raster Image Correlation Spectroscopy (RICS) analysis of peptide receptor and membrane mobility

DeGraaf, Y.C., Clarke, J.N., Gratton, E., Digman, M., Thomas, W.G. and Gibbins, I.L. (Australia and USA)

POS-TUE-098 13:00 - 14:00

Can volume transmission really work? Modelling extracellular diffusion of substance P

Gibbins, I.L., Goh, S.X., DeGraaf, Y.C. and Clarke, J.N.
(Australia)

POS-TUE-099 12:00 - 13:00

Prepulse inhibition of the startle response paradigm in Nedd4 mice

Guille, V., Bongiorno, D., Petratos, S., Kumar, S. and Poronnik, P. (Australia)

POSTER SESSION B – TUESDAY 2 FEBRUARY 2010

POS-TUE-100 13:00 - 14:00

p53 and Ndfip1 regulate stress induced exosome release
Putz, U. and Tan, S.-S. (Australia)

POS-TUE-101 12:00 - 13:00

Exploring soluble antagonists of EphA4 as a potential therapeutic for spinal cord injury
Spanevello, M.D., Tajouri, S.I., Turnley, A.M., Boyd, A.W. and Bartlett, P.F. (Australia)

POS-TUE-102 13:00 - 14:00

The role of SOCS2 in neurite morphology of cultured dorsal root ganglia neurons
Uren, R.T. and Turnley, A.M. (Australia)

POS-TUE-103 12:00 - 13:00

Establishing an *in vitro* model to investigate microglia influence on hippocampal neural precursors
Vukovic, J., Walker, T.L. and Bartlett, P.F. (Australia)

POS-TUE-104 13:00 - 14:00

Metallothioneins induce growth cone chemotaxis
Landowski, L.M., Chung, R.S., Gasperini, R., Small, D.H., West, A.K. and Foa, L. (Australia)

POS-TUE-105 12:00 - 13:00

Functional dopaminergic differentiation of purified mice Müller cells in culture
Stutz, B., Conceicao, F.S.L., Cadihe, D.V., Gardino, P.F., Rehen, S.K., Houzel, J.C. and de Mello, F.G. (Australia and Brazil)

POS-TUE-106 13:00 - 14:00

Low and high affinity catecholamine binding sites in tyrosine hydroxylase show structural similarity
Briggs, G.D., Gordon, S.L., Dunkley, P.R. and Dickson, P.W. (Australia)

POS-TUE-107 12:00 - 13:00

Mechanisms of phosphorylation-sensitive CaMKII targeting
Skelding, K.A., Xue, J., Suzuki, T., Verrills, N.M., Dickson, P.W. and **Rostas, J.A.P.** (Australia and Japan)

POS-TUE-108 13:00 - 14:00

Regulation of proliferation of neuroblastoma cells by CaMKII
Skelding, K.A., Verrills, N.M., Dickson, P.W. and Rostas, J.A.P. (Australia)

POS-TUE-109 12:00 - 13:00

Chemokines and inflammatory mediators regulate neural progenitor cell differentiation
Turbic, A., Leong, S.Y. and Turnley, A.M. (Australia)

**NEUROPHYSIOLOGY, TRANSMISSION
AND EXCITABILITY II
Posters 110 to 136**

POS-TUE-110 13:00 - 14:00

Galanin potentiates amylase secretion by mouse pancreatic lobules but not by isolated acinar cells
Bazargan, M., Barreto, S.G., Schlothe, A.C., Carati, C.J., Toouli, J. and **Saccone, G.T.P.** (Australia)

POS-TUE-111 12:00 - 13:00

Calcitonin gene-related peptide (CGRP) antagonists decrease the excitatory input of primary afferent input onto trigeminal subnucleus caudalis neurons
Williams, M.W. and Jennings, E.A. (Australia)

POS-TUE-112 13:00 - 14:00

Galanin and its receptors are expressed in the whole mouse pancreas, isolated acinar and islet cells
Bazargan, M., Hussey, D.J., Leong, M., Peiris, H., Keating, D.J., Carati, C.J., Toouli, J. and Saccone, G.T.P. (Australia)

POS-TUE-113 12:00 - 13:00

Anatomy and physiology of GABA-ergic feedback excitation in parvalbumin expressing interneurons of the basolateral amygdala
Spampanato, J., Sullivan, R.K.P., Bartlett, P. and Sah, P. (Australia)

POS-TUE-114 13:00 - 14:00

Properties of the intercalated neurons in the rodent amygdala
Strobel, C.E.L. and Sah, P. (Australia)

POSTER SESSION B – TUESDAY 2 FEBRUARY 2010

POS-TUE-115 12:00 - 13:00

Electrophysiological characterization of the medial amygdala in mice

Keshavarzi, S. and Sah, P. (Australia)

POS-TUE-116 13:00 - 14:00

Effects of sensory stimulation on amygdala neuron activity in vivo

Windels, F., Crane, J. and Sah, P. (Australia)

POS-TUE-117 12:00 - 13:00

Mapping the primate zona incerta by comparison with the pattern of immunomarkers in the rat

Chipungu, T., **Thomas, M.,** Lind, C. and Watson, C. (Australia)

POS-TUE-118 13:00 - 14:00

Neuromodulation of stochastic resonance in cortical neurons

Uusisaari, M., Torben-Nielsen, B. and Stiefel, K. (Japan)

POS-TUE-119 12:00 - 13:00

Network activation state modulates gain in the mouse lateral geniculate nucleus

Wijesinghe, R., Solomon, S.G. and Camp, A.J. (Australia)

POS-TUE-120 13:00 - 14:00

Alcohol and protein expression: perspectives on alcohol-induced brain damage

Kashem, M.A. and McGregor, I.S. (Australia)

POS-TUE-121 12:00 - 13:00

Long-term moderate beer consumption causes major changes in the striatal proteome of the rat

Kashem, M.A., Sarker, S., Ahmed, E., **Ahmed, S.,** Hargre, G.A. and McGregor, I.S. (Australia)

POS-TUE-122 13:00 - 14:00

Ionic homeostasis in responses of neural cells to stress

Shabala, L., Chung, R.S. and West, A.K. (Australia)

POS-TUE-123 12:00 - 13:00

Acute, reversible axonal energy failure during a stroke-like episode in melas

Farrar, M.A., Lin, C.S.Y., Krishnan, A., Park, S., Andrews, I. and Kiernan, M. (Australia)

POSTER SESSION B – TUESDAY 2 FEBRUARY 2010

POS-TUE-124 13:00 - 14:00

Pathophysiology of paclitaxel-induced neurotoxicity

Park, S.B., Lin, C.S.Y., Krishnan, A.V., Friedlander M.L., Lewis, C. and Kiernan, M.C.

POS-TUE-125 12:00 - 13:00

HCN channels in inflammation of the rat temporomandibular joint

Hatch, R.J., Staikopoulos, V., Ivanusic, J.J. and Jennings, E.A. (Australia)

POS-TUE-126 13:00 - 14:00

Distinct membrane and synaptic properties of calretinin expressing neurons in the superficial dorsal horn of the mouse spinal cord

Graham, B.A., Hughes, D.I., Lim, R., Sah, P., Brichta, A.M. and Callister, R.J. (Australia and Scotland)

POS-TUE-127 12:00 - 13:00

Electrophysiological properties of superficial dorsal horn neurons differ in upper-cervical spinal segments in neonate and adult mice

Harris, B.M., Walsh, M.A., Graham, B.A., Bolton, P.S., Brichta, A.M. and Callister, R.J. (Australia)

POS-TUE-128 13:00 - 14:00

Comparison between T-lymphocytes in dorsal root ganglia of Wistar and Lewis rats after sciatic nerve transaction

Hu, P. and McLachlan, E.M. (Australia)

POS-TUE-129 12:00 - 13:00

Long-term facilitation of sympathetic nerve activity does not require increased phrenic nerve activity following acute intermittent

Xing, T., Sun, Q., McMullan, S. and Pilowsky, P. (Australia)

POS-TUE-130 13:00 - 14:00

Nerve excitability and mechanisms of immunotherapy in patients with chronic inflammatory demyelinating polyneuropathy

Lin, C.S.-Y., Krishnan, A.V., Park, S.B. and Kiernan, M.C. (Australia)

POSTER SESSION B – TUESDAY 2 FEBRUARY 2010

POS-TUE-131 12:00 - 13:00

Developmental changes in subthreshold potassium currents contribute to increased excitability of the neonatal spinal cord
Walsh, M.A., Graham, B.A., Brichta, A.M. and Callister, R.J. (Australia)

POS-TUE-132 13:00 - 14:00

Sodium current properties differ in neonate and adult mouse superficial dorsal horn neurons
Farrell, K.E., Walsh, M.A., Graham, B.A., Brichta, A.M. and Callister, R.J. (Australia)

POS-TUE-133 12:00 - 13:00

Repetitive transcranial magnetic stimulation changes an abnormal - but not normal - neural projection
Mo, C., Sherrard, R., Dunlop, S. and Rodger, J. (Australia)

POS-TUE-134 13:00 - 14:00

Long-term depression caused by low frequency stimulation in paired-pyramidal cells of layer II/III of rat barrel cortex
Li, L., Choy, J. and Stricker, C. (Australia and China)

POS-TUE-135 12:00 - 13:00

Dopamine D2 receptor expressing striatal projection neurons display long term potentiation after high frequency stimulation of cortical afferents
Vickers, C.A., Arbuthnott, G.W. and Wickens, J. (Japan)

POS-TUE-136 13:00 - 14:00

Protein synthesis-dependent enhancement of transmitter release in persistent forms of hippocampal LTP
Johnstone, V.P.A. and Raymond, C.R. (Australia)

SENSORY SYSTEMS II

Posters 137 to 172

POS-TUE-137 12:00 - 13:00

Chemokine-mediated guidance of the neuroinflammatory response by Müller cells following light-induced retinal degeneration
Rutar, M., Natoli, R., Valter, K. and Provis, J.M. (Australia)

POSTER SESSION B – TUESDAY 2 FEBRUARY 2010

POS-TUE-138 13:00 - 14:00

Role of the complement system in acute and chronic models of retinal degeneration

Provis, J.M., Rutar, M., Natoli, R. and Valter, K. (Australia)

POS-TUE-139 12:00 - 13:00

Anti-inflammatory effect of 670nm light in white light-induced photoreceptor degeneration

Albarracin, R.S. and Valter, K. (Australia)

POS-TUE-140 13:00 - 14:00

Rationale for non-invasive treatment of ROP: dark rearing minimises vaso-obliteration during hyperoxia and mimics physiological vascularisation

Chan-Ling, T., Natoli, R., Provis, J., Bisti, S., Maccarone, R. and Yun, S. (Australia and Italy)

POS-TUE-141 12:00 - 13:00

The mammalian eye averages competing defocus

Bowrey, H.E., Tse, D.Y. and Mcfadden, S.A. (Australia and Hong Kong)

POS-TUE-142 13:00 - 14:00

One exposure per day to hyperopic blur causes myopia

Leotta, A.J. and McFadden, S.A. (Australia)

POS-TUE-143 12:00 - 13:00

Regional variation in sensitivity to form deprivation myopia in the guinea pig

Zeng, G. and McFadden, S. (Australia and China)

POS-TUE-144 13:00 - 14:00

Form deprivation induces myopia after optic nerve section in the mammalian eye

McFadden, S.A., Zeng, G., Ferrandiz, N. and Wildsoet, C.F. (Australia and USA)

POS-TUE-145 12:00 - 13:00

Permanent functional reorganization of retinal circuits induced by early long-term visual deprivation

Di Marco, S., Nguyen, V., Bisti, S. and Protti, D. (Australia)

POS-TUE-146 13:00 - 14:00

Features of the human rod bipolar cell ERG response during fusion of scotopic flicker

Cameron, A., Lam, J. and Campion, M. (Australia)

POSTER SESSION B – TUESDAY 2 FEBRUARY 2010

POS-TUE-147 12:00 - 13:00

Spatial and temporal stimulus variants of multifocal pupillographic perimetry

Sabeti, F., Maddess, T., Essex, R. and James, A. (Australia)

POS-TUE-148 13:00 - 14:00

Pupillary responses to blue stimulation using multifocal pupillographic objective perimetry

Carle, C.F., James, A.C. and Maddess, T.L. (Australia)

POS-TUE-149 12:00 - 13:00

Altered ipsilateral topography, induced by the deletion of Ten-m3, leads to the emergence of novel ocular dominance domains in mice

Merlin, S., Horng, S., Marotte, L.R., Sur, M., Sawatari, A. and Leamey, C.A. (Australia and USA)

POS-TUE-150 13:00 - 14:00

Anatomical and physiological changes in the visual system following damage to the primary visual cortex (V1) early in life

Foo, D.C., Homman-Ludiye, J. and Bourne, J.A. (Australia)

POS-TUE-151 12:00 - 13:00

A model for signal processing in primary visual cortex

Hesam Shariati, N. and Freeman, A.W. (Australia)

POS-TUE-152 13:00 - 14:00

Multiple linear regression for analysing cortical receptive fields: better than your average spike-triggered average

Van Kleef, J.P., Cloherty, S.L., James, A.C. and Ibbotson, M.R. (Australia)

POS-TUE-153 12:00 - 13:00

Resolution of V1 and V2 activity in human visual cortex by integration of multifocal FMRI, EEG and MEG neuroimaging

James, A.C., Goh, X.-L., Henriksson, L. and Vanni, S. (Australia and Finland)

POS-TUE-154 13:00 - 14:00

The foveal confluence in primate, investigating, modeling, explaining

Schira, M.M., Tyler, C.W., Spehar, B. and Breakspear, M. (Australia and USA)

POSTER SESSION B – TUESDAY 2 FEBRUARY 2010

POS-TUE-155 12:00 - 13:00

Development of the specialisation of central primate retina
Kozulin, P., Natoli, R., Madigan, M.C., Bumstead O'Brien, K.M. and Provis, J.M. (Australia)

POS-TUE-156 13:00 - 14:00

Facilitation in hyperacuity of dragonfly hypercomplex neurons
Dunbier, J.R., Bolzon, D.M., Wiederman, S.D., Nordstrom, K. and O'Carroll, D.C. (Australia and Sweden)

POS-TUE-157 12:00 - 13:00

Reclassification of simple and complex cells in the primary visual cortex of the cat
Hietanen, M.A., Van Kleef, J. and Ibbotson, M.R. (Australia)

POS-TUE-158 13:00 - 14:00

Contrast response functions for gratings and plaids in human visual cortex
McDonald, J.S., Mannion, D.J. and **Clifford, C.W.G.** (Australia)

POS-TUE-159 12:00 - 13:00

Structure of extra-classical receptive fields of neurones in cat's area 18
Zeater, N., Romo, P.A., Solomon, S.G., Wang, C. and Dreher, B. (Australia)

POS-TUE-160 13:00 - 14:00

Distinct mechanisms underlying the effect of visual motion on perceived position
Huby, A., Holcombe, A.O. and Linares, D. (Australia)

POS-TUE-161 12:00 - 13:00

Does the pulvinar nucleus contribute to the early maturation of the dorsal stream visual cortical areas?
Warner, C.E. and Bourne, J.A. (Australia)

POS-TUE-162 13:00 - 14:00

The responses of MT component and pattern cells to transparently moving dots
McDonald, J.S., Clifford, C.W.G., Camp, A.J., Tailby, C., Coorey, N.J. and Solomon, S.G. (Australia)

POSTER SESSION B – TUESDAY 2 FEBRUARY 2010

POS-TUE-163 12:00 - 13:00

Parallel sub-pathways of S-cone signals to the macaque's middle temporal area

Jayakumar, J., Roy, S., Dreher, B. and Vidyasagar, T.R. (Australia)

POS-TUE-164 13:00 - 14:00

How motion integration by neurons in primate area MT depends on temporal frequency

Solomon, S.G., Camp, A.J. and Tailby, C. (Australia)

POS-TUE-165 12:00 - 13:00

Adaptation to surface motion perceived through touch

McIntyre, S., Seizova-Cajic, T., Holcombe, A.O. and Birznieks, I. (Australia)

POS-TUE-166 13:00 - 14:00

Auditory evoked potentials in the rat and the "two-hit" hypothesis of schizophrenia

Nakamura, T., Michie, P.T., Fulham, W.R., Hunter, M., Budd, T.W., Schall, U., Kemp, A.J., Cooper, G., Todd, J. and Hodgson, D.M. (Australia)

POS-TUE-167 12:00 - 13:00

The effect of contour length on the perception of local perturbations

Contini, E.W. and McDonald, J.S. (Australia)

POS-TUE-168 13:00 - 14:00

A comparison of neuronal and behavioural detection thresholds in rat whisker-barrel system

Adibi, M., Cooper, L. and Arabzadeh, E. (Australia)

POS-TUE-169 12:00 - 13:00

Differential cortical representation of inputs arising from the upper arm

Chelvanayagam, D.K., Nagi, S.S. and Mahns, D.A. (Australia)

POS-TUE-170 13:00 - 14:00

Responses in primary and secondary somatosensory cortical regions in the cat to dual frequency vibrotactile stimuli applied to the glabrous skin of the forepaw

Chen, S.C., Byrnes-Preston, P.J., Vickery, R.M., Lovell, N.H. and Morley, J.W. (Australia)

POSTER SESSION B – TUESDAY 2 FEBRUARY 2010

POS-TUE-171 12:00 - 13:00

A high throughput assay to measure sensorimotor gating (PPI) in *Drosophila*

Van Alphen, B., Burne, T.H.J., Eyles, D.W., Mattingley, J., McGrath, J.J. and van Swinderen, B. (Australia)

POS-TUE-172 13:00 - 14:00

Physiological noise in the firing of human muscle spindle afferents

Birznieks, I., Boonstra, T.W. and Macefield, V.G. (Australia)

COGNITION AND BEHAVIOUR

Posters 173 to 202

POS-TUE-173 12:00 - 13:00

Reaction times in an attention task is shortened by microstimulation in posterior parietal cortex

Levichkina, E., Maloney, R., Jayakumar, J., Goodwin, A.W. and **Vidyasagar, T.R.** (Australia)

POS-TUE-174 13:00 - 14:00

Steady-state visually evoked potentials (SSVEPs) reveal attention-like behaviour in the fruit fly *Drosophila melanogaster*

van Swinderen, B. and Paulk, A.C (Australia)

POS-TUE-175 12:00 - 13:00

Genetic contribution to individual variation in binocular rivalry rate

Miller, S.M., Hansell, N.K., Ngo, T.T., Liu, G.B., Pettigrew, J.D., Martin, N.G. and Wright, M.J. (Australia)

POS-TUE-176 13:00 - 14:00

The role of neural synchronization in hierarchical motor control

Boonstra, T.W., Daffertshofer, A. and Breakspear, M. (Australia)

POS-TUE-177 12:00 - 13:00

Discrimination of complex form by simple oscillator networks

Maddess, T., Taylor, R.R.L., Lo, Y.-W. and Nagai, Y. (Australia and Japan)

POSTER SESSION B – TUESDAY 2 FEBRUARY 2010

POS-TUE-178 13:00 - 14:00

Learning and memory pathways in the *Drosophila* mushroom bodies affect motion response to visual stimuli

Evans, O., Paulk, A. and van Swinderen, B. (Australia)

POS-TUE-179 12:00 - 13:00

The corridor task as a sensorimotor test for 6OHDA lesioned mice

Fernando, C.V., Parish, C.L., Horne, M.K. and Thompson, L. (Australia)

POS-TUE-180 13:00 - 14:00

Structure and putative function of antennal sensilla of workers of *Coptotermes formosanus* Shiraki

Yanagawa, A., Yoshimura, T., Tsunoda, K., Imamura, Y. and Yokohari, F. (Japan)

POS-TUE-181 12:00 - 13:00

Re-examining previously 'established' neural pathways using classical and novel methods

Turker, K.S., Binboga, E., Prasartwuth, O., Kahya, M.C., Atis, E.S., Ugincius, P., Yavuz, S.U., Sendemir-Urkmez, A., Rogasch, N.C. and Burne, J.A. (Turkey, Thailand, Lithuania and Australia)

POS-TUE-182 13:00 - 14:00

An association between inequity-averse moral preference and risk aversion in decision-making

Palmer, C.J., Paton, B., Ngo, T.T., Thomson, R.H., Hohwy, J. and Miller, S.M. (Australia)

POS-TUE-183 12:00 - 13:00

Function of EGF receptor signaling in the neonatal hippocampal lesion model of schizophrenia

Mizuno, M., Sotoyama, H., Namba, H. and Nawa, H. (Japan)

POS-TUE-184 13:00 - 14:00

Spatial learning-induced increase in Agmatine levels at hippocampal CA1 synapses

Leitch, B., Shevtsova, S., Reusch, K., Bergin, D.H. and Liu, P. (New Zealand)

POS-TUE-185 12:00 - 13:00

Can rats be trained to discriminate between pre- and post-synaptic serotonin 1A receptors? Investigating the effects of novel anxiolytic and antidepressant compounds using drug discrimination

Vacy, K., Ralph, D., Tunstall, B. and Broadbear, J. (Australia)

POS-TUE-186 13:00 - 14:00

Behavioural correlates of gestational low dose ethanol exposure in aged offspring

Cullen, C.L., Moritz, K.M., Lavidis, N.A. and Burne, T.H.J. (Australia)

POS-TUE-187 12:00 - 13:00

Alcohol reinstatement induced neuronal activation following protracted abstinence compared to reinstatement immediately following extinction

Jupp, B., Krstew, E., Dezsi, G. and Lawrence, A.J. (Australia)

POS-TUE-188 13:00 - 14:00

The impact of stress on a heterozygous neuregulin 1 mutant mouse model

Chesworth, R. and **Karl, T.** (Australia)

POS-TUE-189 12:00 - 13:00

Exercise or comfort food reduces stress response following prolonged maternal separation in rats

Maniam, J. and Morris, M.J. (Australia)

POS-TUE-190 13:00 - 14:00

Behavioural effects of maternal obesity: reduced anxiety in female offspring of obese mothers

Morris, M.J., Hossain, S., South, T. and Chen, H. (Australia)

POS-TUE-191 12:00 - 13:00

Anxiety and central responses to restraint stress in rats made lean by neonatal underfeeding

Spencer, S.J., Bulfin, L.J. and Tilbrook, A. (Australia)

POS-TUE-192 13:00 - 14:00

Lycium barbarum (wolfberry) polysaccharide facilitates ejaculatory behaviour in male rats

Lau, B.W.M., Yau, S.Y., Lee, C.D., Chang, R.C.C. and So, K.F. (Hong Kong and PR China)

POSTER SESSION B – TUESDAY 2 FEBRUARY 2010

POS-TUE-193 12:00 - 13:00

Assessing the roles of oxytocin and arginine vasopressin

Mak, P. and Broadbear, J. (Australia)

POS-TUE-194 13:00 - 14:00

Advanced paternal age is associated with spontaneous hyperlocomotion and alterations in response to amphetamine in C57Bl/6J mice

Foldi, C.J., McGrath, J.J., Eyles, D.W. and Burne, T.H.J. (Australia)

POS-TUE-195 12:00 - 13:00

The effects of orexin-1 receptor antagonism on alcohol self-administration and relapse behaviour in rats

Krivdic, B., Duncan, J.R., Francis, A.J.P., Krstew, E. and Lawrence, A.J.L. (Australia)

POS-TUE-196 13:00 - 14:00

α 4-S248F mice show increased IV self-administration of low dose nicotine

Cahir, E., Drago, J. and Lawrence, A. (Australia)

POS-TUE-197 12:00 - 13:00

mGlu5 receptors regulate opiate self administration and relapse behaviour in mice

Stagnitti, M.R., Brown, R.M., **Duncan, J.R.** and Lawrence, A.J. (Australia)

POS-TUE-198 13:00 - 14:00

The effect of oxytocin and vasopressin on methamphetamine and MDMA ('ecstasy')-induced reward in rats

Rourke, P.I., Hunt, G.E., McGregor, I.S. and **Cornish, J.L.** (Australia)

POS-TUE-199 12:00 - 13:00

Evaluating the contribution of serotonin receptor subtypes and 'binge' MDMA exposure on the discriminative stimulus effects of MDMA in rats

Smithies, V. and Broadbear, J. (Australia)

POS-TUE-200 13:00 - 14:00

Age-related increase in mitochondrial DNA deletion mutations in rat brain

Cahif, A., Soliman, M. and Smith, D.W. (Australia)

POS-TUE-201 12:00 - 13:00

Characterisation of the forebrain-neuron specific IRAP knockout mouse

Yeatman, H.R., Burns, P., Albiston, A.L. and Chai, S.Y. (Australia)

POS-TUE-202 13:00 - 14:00

Insulin-like peptide 3 (INSL3) in mouse brain: somatic neuronal expression and effects of central administration on complex behaviour

Karunaratne, N.S., Sang, Q., Sedaghat, K., Lin, F., Wade, J.D. and Gundlach, A.L. (Australia)

NEUROLOGICAL AND PSYCHIATRIC CONDITIONS II
Posters 203 to 236

POS-TUE-203 12:00 - 13:00

Characterization of a novel covalently cross-linked A β peptide dimer and its role in Alzheimer's disease

Ciccotosto, G.D., Kok, W.M., Naylor, R., Tew, D., Hutton, C.A., Lal, D., Bowser, D., Masters, C.L., Cappai, R. and Barnham, K.J. (Australia)

POS-TUE-204 13:00 - 14:00

Studies on the mechanism of heparin-induced stimulation of proBACE1

Klaver, D.W., Wilce, M., Beckman, M., Freeman, C., Juliano, J.-P., Parish, C., Gasperini, R., Foa, L., Aguilar, M.-I. and Small, D.H. (Australia and Sweden)

POS-TUE-205 12:00 - 13:00

Cellular models to investigate the effect of oxidative stress on BACE1

Tan, J., Li, Q.-X. and Evin, G. (Australia)

POS-TUE-206 13:00 - 14:00

Screening of sphingolipid biosynthesis inhibitors as amyloid-beta modulators

Li, H., Kim, W.S., Hill, A.F., Evin, G. and Garner, B. (Australia)

POSTER SESSION B – TUESDAY 2 FEBRUARY 2010

POS-TUE-207 12:00 - 13:00

Investigation of matrix metalloproteinase as a blood biomarker for Alzheimer's disease

Lim, N., Soon, C., Laughton, K., Villemagne, V., Rowe, C., Masters, C., Evin, G. and Li, Q.-X. (Australia)

POS-TUE-208 13:00 - 14:00

The unique C-terminal region of secreted amyloid precursor protein alpha is crucial for neuroprotection

Mukadam, A., Bourne, K. and Tate, W. (New Zealand)

POS-TUE-209 12:00 - 13:00

Effect of direct contact with A β on neurite outgrowth in an in vitro model of dystrophic neuritis

Percy, N.L., Gasperini, R., Foa, L. and Small, D.H. (Australia)

POS-TUE-210 13:00 - 14:00

Calcium oscillations in glial precursors induced by amyloid β

Vincent, A.J., Gasperini, R., Foa, L. and Small, D.H. (Australia)

POS-TUE-211 12:00 - 13:00

Post-synaptic scaffold protein loss correlates with Alzheimer's disease pathology

Proctor, D.T., Coulson, E.J. and Dodd, P.R. (Australia)

POS-TUE-212 13:00 - 14:00

Neuropathology of senile plaques and experimental haemorrhagic lesions: test of the microvascular hypothesis of plaque formation in human brain

Purushothuman, S., Marotte, L. and Stone, J. (Australia)

POS-TUE-213 12:00 - 13:00

Decreases in receptor-associated protein in Alzheimer's disease human brain tissue correlate with increased plaque load

Shepherd, C.E., Hill, M., Small, D. and Halliday, G.M. (Australia)

POS-TUE-214 13:00 - 14:00

Change in glutathione export parameters by activated astrocytes - a novel target for Alzheimer's disease?

Steele, M.L., Fuller, S. and Muench, G. (Australia)

POS-TUE-215 12:00 - 13:00

Tau deposition correlates with inflammation in Alzheimer's disease

Yeung, P.K., Halliday, G.M. and Shepherd, C.E. (Australia)

POS-TUE-216 13:00 - 14:00

Generation of tau-promoter reporter cells for high throughput screening

Liu, X., Goetz, J. and Ittner, L.M. (Australia)

POS-TUE-217 12:00 - 13:00

Quinolinic acid in AIDS dementia complex with implications for an Alzheimer like pathogenetic component

Wu, W., Stankovic, R., Cullen, K.M., Bell, J., Brew, B.J. and Guillemin, G.J. (Australia)

POS-TUE-218 13:00 - 14:00

Microtubule-associated protein tau phosphorylated at specific residues is recruited to ADF/cofilin-actin neuritic aggregates: pathogenic mechanisms in early Alzheimer's

Whiteman, I.T., Minamide, L.S., Bamburg, J.R. and Goldsbury, C. (Australia and USA)

POS-TUE-219 12:00 - 13:00

N-cadherin, β -catenin and gephyrin levels with pathological severity in Alzheimer disease

Tannenberg, R.K., Worrall, S. and Dodd, P.R. (Australia)

POS-TUE-220 13:00 - 14:00

Characterisation of brain derived apolipoprotein-E peptides using immunoprecipitation and mass spectrometry

Elliott, D.A., Raftery, M., Halliday, G.M. and Garner, B. (Australia)

POS-TUE-221 12:00 - 13:00

Compartmentalized excitotoxicity in primary motor neurons: a novel model of ALS pathology

Hosie, K.A., King, A.E., Vickers, J.C. and Dickson, T.C. (Australia)

POS-TUE-222 13:00 - 14:00

Hypothalamus in behavioural-variant frontotemporal dementia

Lam, B.Y.K., Gabery, S., Murphy, K., Petersen, A., Hodges, J.R., Halliday, G.M. and Piguet, O. (Australia and Sweden)

POSTER SESSION B – TUESDAY 2 FEBRUARY 2010

POS-TUE-223 12:00 - 13:00

Neuronal loss in the cingulate cortex in frontotemporal dementia

Pok, K., Brooks, D., Davies, R.R., Hodges, J.R., Xuereb, J.H., Halliday, G.H. and Kril, J.J. (Australia and UK)

POS-TUE-224 13:00 - 14:00

Increased iron related MR phase signals in the striatum in

Huntington's disease: a novel MR neurodegenerative biomarker

Faggian, N., Georgiou-Karistianis, N., Chen, Z., Bohanna, I., Pia Carron, S., Johnston, L., Stout, J., Churchyard, A. and **Egan, G.** (Australia)

POS-TUE-225 12:00 - 13:00

The effect of social defeat on tyrosine hydroxylase phosphorylation in rat brain and adrenals

Ong, L.K., Bobrovskaya, L., Walker, F.R., Day, T.A., Dickson, P.W. and Dunkley, P.R. (Australia)

POS-TUE-226 13:00 - 14:00

Investigation of the loss of astrocytes as the initiation of Parkinson's disease

Tiong, V. and Allbutt, H.N. (Australia)

POS-TUE-227 12:00 - 13:00

Lipidomic assessment of Parkinson's disease brain

Cheng, D., McCann, H., Halliday, G., Nealon, J., Mitchell, T. and Garner, B. (Australia)

POS-TUE-228 13:00 - 14:00

Development of an *in vitro* model of human dopaminergic neurons

Zinger, A., Double, K. and Guillemin, G.J. (Australia)

POS-TUE-229 12:00 - 13:00

Substantia nigra dopaminergic cell response to rotenone induced oxidative stress *in vivo*

Norazit, A., Meedeniya, A.C.B., Nguyen, M. and Mackay-Sim, A. (Australia and Malaysia)

POS-TUE-230 13:00 - 14:00

Parkinson's disease patients can adapt to perturbed visual feedback with sufficient training

Leow, L., Loftus, A.M. and Hammond, G.R. (Australia)

POSTER SESSION B – TUESDAY 2 FEBRUARY 2010

POS-TUE-231 12:00 - 13:00

Wnt proteins in remodelling and repair of the midbrain dopamine pathways

Blakely, B.D., Fernando, C.V., Horne, M.K., Thompson, L.H. and Parish, C.L. (Australia)

POS-TUE-232 13:00 - 14:00

Dopamine receptor expression changes in the nucleus accumbens of rats disabled by peripheral nerve injury

Austin, P.J. and Keay, K.A. (Australia)

POS-TUE-233 12:00 - 13:00

Parkinson's disease and instability within the Parkin locus

Stephenson, S.E.M., Feng, Z.P., Taylor, J.M. and Lockhart, P.J. (Australia)

POS-TUE-234 13:00 - 14:00

Critical role for the paraventricular thalamus in cocaine-primed 'relapse': modulation by cocaine - and amphetamine-regulated transcript

James, M., Jones, E., Chanley, J., Yeoh, J., Levi, E., Flynn, J., Smith, D. and Dayas, C. (Australia)

POS-TUE-235 12:00 - 13:00

Neural remodelling in mice with targeted ablation of D1 dopamine receptor-expressing striatal neurons: a model of basal ganglia neurodegeneration

Kim, H.A., Jiang, L., Parish, C.L., O'Tuathaigh, C., Waddington, J.L., Ehrlich, M.E., Lawrence, A.J. and Drago, J. (Australia, Ireland and USA)

POS-TUE-236 13:00 - 14:00

The human Q133K TDP-43 mutation, but not the wild-type TDP-43, inhibits NGF-mediated differentiation of PC-12 cells - mimicking the effects of silencing TDP-43 expression

Tarco, N., Rogers, M.-L., Rush, R.A. and **Muyderman, H.** (Australia)

LATE POSTERS (Not sorted by theme)
Posters 237 to 250

POS-TUE-237 12:00 - 13:00

The anxiolytic compound BNC210 exhibits an antidepressant effect without symptoms of physical dependence

O'Connor, S.M., Andriambeloson, E., Huyard, B., Wagner, S. and Kremmidiotis, G. (Australia and France)

POS-TUE-238 13:00 - 14:00

Characterization of tertiapin-Q activity on inwardly rectifying K⁺ channels

Pera, E., Yow, T.T., Absalom, N., Johnston, G.A.R., Hanrahan, J.R. and Chebib, M. (Australia)

POS-TUE-239 12:00 - 13:00

Canine sand maze: a non-aversive spatial memory retention task for use in a canine model of Alzheimer's

Salvin, H.E., Valenzuela, M.J., Sachdev, P.S. and McGreevy, P.D. (Australia)

POS-TUE-240 13:00 - 14:00

Development of EphA4 receptor antagonists for the treatment of CNS injury

Dixon, K.J., Roberts, K., Chan, J.L., Hughes, R.A. and Turnley, A.M. (Australia)

POS-TUE-241 12:00 - 13:00

Genotype-phenotype interaction in Chinese male heroin-dependent subjects

Ho, A.M.C., Cheung, B.K.L. and **Stadlin, A.** (Hong Kong, Australia and South Korea)

POS-TUE-242 13:00 - 14:00

Lifetime mental activity promotes structural and functional brain integrity

Suo, C., Fiatarone Singh, M., Sachdev, P., Wen, W., Singh, N., Brodaty, H., Baune, B.T., Gates, N. and Valenzuela, M. (Australia)

POS-TUE-243 12:00 - 13:00

Multisensory facilitation as a factor influencing IQ in children

Barutchu, A., Crewther, S.G., Fifer, J., Shivdasani, M., Innes-Brown, H., Danaher, J., Toohey, S. and Paolini, A.G. (Australia)

POS-TUE-244 13:00 - 14:00

Evidence of a role for interstitial cells of Cajal in regulating noradrenergic peristalsis in guinea-pig vas deferens

King, D.A., Chung, E.S.Y., Sanai, F., McParland, B.E. and Lloyd, H.G.E. (Australia)

POS-TUE-245 12:00 - 13:00

HFl-1 reduces damage, behavioural deficits and neuropathic pain in a rat model of spinal cord contusion

Weston, R.M. and Jarrott, B. (Australia)

POS-TUE-246 13:00 - 14:00

Zic3 regulates critical genes involved in the establishment of the neuroectoderm lineage and neuronal differentiation

Lim, L.S., Hong, H.F. and Stanton, L.W. (Singapore)

POS-TUE-247 12:00 - 13:00

Alteration in transient receptor potential (TRP) channels function in a model of chronic pain

Castro, J., Martin, C.M., Harrington, A.M., Hughes, P.A., Blackshaw, L.A. and Brierley, S.M. (Australia)

POS-TUE-248 13:00 - 14:00

Is there a dorsal colour area in human visual cortex?

Goddard, E., Mannion, D.J., McDonald, J.S., Solomon, S.G. and Clifford, C.W.G. (Australia)

POS-TUE-249 12:00 - 13:00

The role of cAMP-response-binding-element protein (CREB) in the nucleus accumbens in relapse to methamphetamine addiction

Kraushaar, N.J., Hunt, L.R. and Cornish, J.L. (Australia)

POS-TUE-250 13:00 - 14:00

Quantification of NMDA receptor NR1 splice variant expression in the cortex of human alcoholics

Ng., C.P., Ridge, J.P. and **Dodd, P.R.** (Australia)