

## ORAL COMMUNICATIONS

*In oral communications with more than one author, the first author  
is the one who intended to present the work*

- 152P **Chivers JE, Donnelly LE, Barnes PJ & Newton R** Characterisation of a dissociated glucocorticoid in the  $\alpha 549$  cell line
- 153P **Ellis KM, Mazzoni L & Fozard JR** Mechanism of the bronchoconstrictor response to bradykinin augmented following allergen challenge in actively sensitised Brown Norway rats
- 154P **Danahay H, Atherton H & Poll CT** Interleukin (IL)-13 enhances a calcium activated anion conductance in human bronchial epithelial cells (HBECs) that is sensitive to DIDS and DNDS but not to tamoxifen.
- 155P **Clarke DL, Belvisi MG, Patel HJ, Yacoub MH & Giembycz MA** Prostaglandin E2 inhibits GM-CSF release from interleukin-1 $\beta$ -stimulated human airway smooth muscle cells by interacting with prostanoid receptors of the EP<sub>2</sub>-subtype
- 156P **Young RE, Thompson RD & Nourshargh S** Divergent mechanisms of action of the inflammatory cytokines interleukin-1 $\beta$  (IL-1 $\beta$ ) and tumour necrosis factor- $\alpha$  (TNF- $\alpha$ ) in mouse cremasteric venules
- 157P **Jenkins GR, Leckie MJ, Bush A, Hansel TT & Jose PJ** Neutrophil stimulating activity in induced sputum from patients with chronic obstructive pulmonary disease (COPD) : contribution of GRO and IL-8
- 158P **Getting SJ, Flower RJ & Perretti M** Activation of melanocortin type 3 receptor as a novel mechanism for ACTH efficacy in gouty arthritis
- 159P **Francischi JN, Chaves CT, Lima AS & Bakhle YS** A new anti-nociceptive pathway mediated by cyclooxygenase-2 in rat paw inflammation induced by carrageenan
- 160P **La M, Cao T, Chernajovsky Y & Perretti M** Effect of galectin-1 on neutrophil chemotaxis *in vitro* and migration *in vivo*
- 161P **Traves SL, Smith SJ, Barnes PJ & Donnelly LE** Increased migration of monocytes from COPD patients towards GRO $\alpha$  is not mediated by an increase in CXCR<sub>2</sub> receptor expression
- 162P **Smith SJ, Brookes-Fazakerley S, Barnes PJ & Giembycz MA** Determination of phosphodiesterase 7A protein expression in human immune and pro-inflammatory cells
- 163P **Ito E, King S & Sampson AP** The leukotriene synthetic pathway in human peripheral blood T-lymphocytes
- 164P **Vugler A, Brown D, Alexander R, Ratcliffe A, Howat D & Robinson M** Effect of a novel low molecular weight inhibitor of the integrin Alpha<sub>v</sub> Beta<sub>3</sub> (CT6725) on bone resorption *in vitro*.
- 165P **Woods M, Wood EG, Mitchell JA, Bishop-Bailey D & Warner TD** Antisense to STAT1/IRF-1 and NF- $\kappa$ B inhibits cytokine stimulated ET-1 release from human vascular smooth muscle cells
- 166P **Gardener MJ, Edwards G, Burnham MP & Weston AH** Further investigations on EDHF in the rat mesenteric artery: the effect of hepes on acetylcholine-induced hyperpolarization
- 167P **McNeish AJ, Wilson WS & Martin W** Ascorbic acid attenuates EDHF-mediated vasodilatation in the bovine isolated perfused eye
- 168P **Erhorn S, Lang D, Doshi S & Lewis MJ** Methyltetrahydrofolate and tetrahydrobiopterin inhibit methionine-induced endothelial dysfunction in rabbit aortic rings: an antioxidant-independent effect?
- 169P **Lang D, Clarke ZL, Erhorn S, Doshi S & Lewis MJ** Methionine-induced oxidative stress in isolated aortic ring preparations is inhibited by methyltetrahydrofolate and tetrahydrobiopterin
- 170P **Sand C, Peters SLM, Pfaffendorf M & van Zwieten PA** The sensitivity of cardiac autonomic receptors and vascular endothelial function to oxidative stress: a comparison between hypochlorite and hydrogen peroxide
- 171P **de Groot A, Peters SLM, Pfaffendorf M & van Zwieten PA** Angiotensin II and phenylephrine induced vasoconstriction: a possible contribution of reactive oxygen species and the MAP kinase pathway
- 172P **Leiper J, Murray-Rust J, McDonald N & Vallance P** A novel mechanism for the regulation of endogenous inhibitors of nitric oxide synthase: S-nitrosylation of dimethylarginine dimethylaminohydrolase.
- 173P **Alencar JL, Geffard M, Stoclet J-C & Muller B** Evidence for the formation of vasoactive nitric oxide stores by S-nitrosation of cysteine residues in isolated blood vessels exposed to S-nitrosoglutathione
- 174P **de Saram K, McNeill KL, Ritter JM & Chowienczyk PJ** Vitamin C may modulate NO-dependent relaxation through direct interaction with NO and nitrosothiols

- 175P **Jones C, Birdsey G, Arrigoni F, Leiper J & Vallance P** Increased metabolism of endogenous NOS inhibitors promotes tube formation in an *in vitro* model.
- 176P **Thomas MA, Bishop-Bailey D & Warner TD** Heme oxygenase induction is associated with protection from SIN-1 cytotoxicity in WKY 3M-22 rat aortic smooth muscle cells
- 177P **Clements-Jewery H & Curtis MJ** Phase 2 ischaemia-induced ventricular fibrillation in the isolated blood-perfused rat heart
- 178P **Gomes P & Soares-da-Silva P** D<sub>1</sub>-like receptors stimulate PLC activity in OK cells independent of G<sub>q/11</sub> activation
- 179P **Harrison C, Clark MJ, Neubig RR & Traynor JR** Expression of RGS insensitive G $\alpha_o$  enhances  $\mu$ -opioid agonist signalling through adenylyl cyclase but not intracellular calcium
- 180P **Samways DSK, Werry T, Willars GB & Henderson G** Effect of thimerosal on  $\mu$ -opioid receptor evoked [Ca<sup>2+</sup>]<sub>i</sub> in SH-SY5Y neuroblastoma cells
- 181P **Werry TD, Christie MI, Dainty IA, Wilkinson GF & Willars GB** Synergy between P2Y<sub>2</sub> nucleotide receptor and CXCR2 chemokine receptor at the level of calcium signalling is dependent on the PLC/Ins(1,4,5)P<sub>3</sub> pathway.
- 182P **Baker JG, Hall IP & Hill SJ** Agonist specific temporal characteristics of  $\beta_2$ -adrenoceptor-stimulated gene transcription response in CHO-K1 cells transfected with the human  $\beta_2$ -adrenoceptor
- 183P **Lewis CJ, Gong H, Koch WJ, Brown MJ & Harding SE** The putative  $\beta_4$ -adrenergic receptor is a novel state of the  $\beta_1$ -adrenergic receptor
- 184P **Spragg EJ, Charlton SJ & Scaramellini Carter CM** Testing the extended ternary complex model using the dopamine D<sub>2S</sub> receptor as a test system
- 185P **Mitchell EA, Harper EA & Black JW** Thermodynamic analysis of ligands at human CCK2S receptors expressed in NIH3T3 cells
- 186P **Harper EA, Gardner B, Shankley NP & Black JW** Histamine H<sub>3</sub>-receptor agonists and antagonists can be thermodynamically-discriminated
- 187P **Newman-Tancredi A, Cussac D, Touzard M, Chaput C, Marini L & Millan MJ** G-Protein activation by h5-HT<sub>1B</sub> receptors expressed in CHO cells: Scintillation Proximity Assays reveal constitutive G<sub>ai3</sub> activation.
- 188P **Newman-Tancredi A, Cussac D, Marini L & Millan MJ** Stimulation of G-protein G<sub>ai3</sub> subunits by h5-HT<sub>1A</sub> receptors expressed in CHO cells: agonists display bell-shaped concentration-response curves.
- 189P **Solito E, Mulla A & Buckingham JC** Dexamethasone induces serine phosphorylation of annexin 1: involvement of PKC and PI3-kinase
- 190P **Mulla A, Buckingham JC & Solito E** LPS acts via IL-6 and IL-1 to modulate the expression and phosphorylation of annexin 1 in cell lines derived from the putative microglia of the neuroendocrine system.
- 191P **Guild SB** A direct inhibitory action of prostaglandins upon ACTH secretion at the late stages of the secretory pathway of AtT-20 cells.
- 192P **Kumari R & Boarder M** Regulation of c-jun N-terminal kinase and p38 in human vascular smooth muscle cells by G-protein coupled P2Y receptors and PDGF receptors
- 193P **Altmann C, Meyer zu Heringdorf D, Büyükbas D & Michel MC** Sphingosylphosphorylcholine inhibits activation of human platelets
- 194P **Czyborra P, Altmann C, Meyer zu Heringdorf D, Büyükbas D & Michel MC** Studies into the mechanism of inhibition of platelet activation by sphingosylphosphorylcholine
- 195P **Chatterjee PK, Patel NSA, Kvale EO, McDonald MC, Cockerill GW, Mota-Filipe H, Miller NE & Thiemermann C** High density lipoprotein reduces renal dysfunction and injury mediated by ischaemia/reperfusion of the rat kidney *in vivo*
- 196P **Patel NSA, Chatterjee PK, Kvale EO, Dugo L, Cuzzocrea S, Britti D & Thiemermann C** The novel iNOS inhibitor GW274150 reduces renal dysfunction mediated by ischaemia/reperfusion of the rat and mouse kidney *in vivo*
- 197P **Conde C, Stassen F, Bidouard J-P, Sulpice T, De Murcia G, O'Connor SE, Herbert J-M & Janiak P** Relative contributions of poly(ADP)ribose polymerase (PARP) isoforms in the pathogenesis of myocardial ischemia-reperfusion injury.
- 198P **Gavins FNE, Gao J, Murphy PM, Flower RJ & Perretti M** Analysis of the protection afforded by an annexin 1 peptide against ischaemia reperfusion in the mouse mesentery
- 199P **Nandi M, Arrigoni F, Leiper J, Vallance P & Haworth G** Tetrahydrobiopterin enhances pulmonary arterial relaxation after birth.
- 200P **Bennett T, March JE, Kemp PA & Gardiner SM** Regional haemodynamic responses to infusion of human urotensin II (hUII) in conscious Sprague-Dawley rats
- 201P **Gardiner SM, Aspley S & Bennett T** Regional haemodynamic responses to phentolamine in conscious Sprague-Dawley rats
- 202P **March JE, Kemp PA & Bennett T**  $\beta_2$ -adrenoceptor involvement in the hindquarters vasodilator effects of WIN 55212-2, HU 210 and anandamide in conscious Sprague-Dawley rats

- 203P **Brahmadevara N, Shaw AM & MacDonald A** Lack of functional  $\beta_3$ - or putative  $\beta_4$ -adrenoceptors in rat isolated aorta
- 204P **Kaumann AJ, Lynham JA, Joseph SS, Colledge WH, Grace AA & Molenaar P** (-)-Pindolol acts through two states of the  $\beta_1$ -adrenoceptor in human atrium and CHO cells.
- 205P **Leineweber K, Wangemann T, Simm A, Silber R-E & Brodde O-E** Effects of ACE-inhibitors and  $\beta$ -blockers on noradrenaline transporter-density and -activity (uptake<sub>1</sub>) in the human heart
- 206P **Balt JC, Mathy MJ, Nap A, Pfaffendorf M & van Zwieten PA** Prejunctional and postjunctional inhibitory actions of the selective  $AT_1$ -antagonists eprosartan and candesartan in the rabbit isolated mesenteric artery
- 207P **Nap A, Balt JC, Pfaffendorf M & van Zwieten PA** Attenuation of angiotensin II augmented noradrenaline release by several selective  $AT_1$ -receptor antagonists in the rabbit isolated thoracic aorta
- 208P **Teixeira CE, Ifa DR, Corso G, Antunes E & De Nucci G** Toxin IV-5 accounts for the relaxing activity of *Tityus serrulatus* venom in the rabbit corpus cavernosum
- 209P **Streefkerk JO, Mathy MJ, Pfaffendorf M & van Zwieten PA** Vasopressin-induced pre-synaptic facilitation of sympathetic neurotransmission in the pithed rat.
- 210P **Gitlin JM, Zanesco A, Stanford SJ, Evans TW, Anning PB & Mitchell JA** The second phase of ATP mediated relaxation is mediated by P2Y<sub>11</sub> receptors
- 211P **Bonifácio MJ, Vieira-Coelho MA, Archer M, Rodrigues L, Carrondo MA & Soares-da-Silva P** Characterization of the inhibition mechanism of catechol *o*-methyltransferase with two novel inhibitors, BIA 3-202 and BIA 3-335
- 212P **Wessler I, Deutsch C, Panter H, Bittinger F, Kirkpatrick CJ & Kilbinger H** Subcellular expression of choline acetyltransferase in and release of acetylcholine from the human isolated placenta
- 213P **Bastlund JF, Watson WP & Sanchez C** Levetiracetam and phenytoin show greater efficacy at reducing nicotine-kindled seizures than PTZ-kindled seizures in mice
- 214P **Harkin A, O'Donnell JM & Kelly JP** Physiological and behavioural monitoring in rats in response to pharmacological agents and laboratory stressors with battery free telemetry
- 215P **Akhondzadeh S, Kashani L & Mobaseri M** Potentiation of muscimol-induced long-term depression by benzodiazepines but not zolpidem
- 216P **Croft AP & Little HJ** Regional brain corticosterone concentrations: lack of correlation with blood levels.
- 217P **Jenkins DW, Sellers LA, Feniuk W & Humphrey PPA** Characterization of bradykinin-induced prostaglandin  $E_2$  release from adult rat trigeminal neurones
- 218P **Kelly S & Chapman V** The effect of a selective cannabinoid  $CB_1$  receptor agonist on mechanical evoked responses of spinal neurons in anaesthetised rats
- 219P **Lever IJ & Malcangio M** Cannabinoid inhibition of capsaicin-evoked substance P release from the mouse spinal cord is reversed by naloxone
- 220P **Egerton A, Pratt JA & Brett R** Regionally selective alterations in AMPA and NMDA receptor subunit mRNA expression in rat brain following repeated administration of  $\Delta^9$ -tetrahydrocannabinol
- 221P **Finn DP, Jhaveri MD, Beckett SRG, Kendall DA, Marsden CA & Chapman V** The effect of intra-periaqueductal grey administration of the cannabinoid agonist HU210 in a rat model of aversion

## POSTER COMMUNICATIONS

- 222P **Carswell HVO, Groves SJ, Jardine E, Hamilton CA & Dominiczak A** Can exogenous oestrogen scavenge superoxide anions in stroke-prone rats?
- 223P **Murray HE, McArthur SR, Dexter DT & Gillies GE** Sex difference in the effects of 6-hydroxydopamine lesions in the nigrostriatal dopaminergic pathway of adult rats and sexually dimorphic actions of 17 $\beta$ -oestradiol
- 224P **Lamfon H, Gillies G, Theogaraj E, John C, Smith SF & Buckingham JC** Effects of neonatal dexamethasone treatment on thymic NOS-2 expression in the adult rat
- 225P **Theogaraj E, John CD, Smith SF & Buckingham JC** The programming actions of glucocorticoids on ANXA-1 expression in the hypothalamic-pituitary adrenal axis of adult rats treated perinatally with dexamethasone
- 226P **Tierney T & Buckingham JC** Evidence for pro-secretory and anti-secretory actions of glucocorticoids and annexin 1 in GH<sub>3</sub> cells and rat anterior pituitary primary cultures.
- 227P **John CD, Theogaraj E, Dewar A, Smith SF, Buckingham JC** Effects of perinatal dexamethasone treatment on immune cell distribution in the adult rat.

- 228P **Cruickshank SF, Drummond RM, Furman BL** Inhibition of islet phosphodiesterase PDE3 increases the calcium response to glucose
- 229P **Corasaniti MT, Piccirilli S, Del Duca C, Nisticò R, Costa A & Bagetta G** Neuronal apoptosis induced by HIV-1 GP120 in the neocortex of rat is prevented by systemic administration of 17 $\beta$ -estradiol
- 230P **Seamons R, Hinzpeter A, MacKenzie C, MacKenzie S, Houslay M & van Heeke G** Expression profile of phosphodiesterases 4, 3 and 7 in resting and activated epithelial cells.
- 231P **Hyland NP & Cox HM** Effects of veratridine upon electrogenic ion transport across NPY knockout and wildtype mouse descending colon mucosa
- 232P **Singh N, Brain SD & Cox HM** A study of muscarinic and neurokinin components underlying pancreatic polypeptide motor responses in mouse proximal colon
- 233P **Maginn M, Rea K & Matz J** Characterisation of neurokinin A-induced contraction in rat and guinea-pig isolated ileum
- 234P **Coltman C, Prince RI, Purcell WM & Osborne RH** Substance P-induced tonic contraction of the rat isolated ileum involves activation of L-type calcium channels and inositol trisphosphate receptors
- 235P **Arkle S, Jaura S, Kalogirou A & Nawaz S** Serotonergic effects of myo-inositol hexakisphosphate in guinea-pig isolated ileum
- 236P **Javid FA & Naylor RJ** Investigation of the effect of WAY-100635 (5-HT<sub>1A</sub> receptor antagonist) on 5-HT-induced contraction in different regions of the *Suncus murinus* intestine
- 237P **Khan H, Tuladhar BR & Naylor RJ** Further investigation of 5-HT induced relaxation in the mouse isolated colon
- 238P **Khan H, Tuladhar BR & Naylor RJ** Evidence for the role of nitric oxide as an inhibitory neurotransmitter in the mouse proximal colon
- 239P **Lodge CS, Arkle S & Brown JF** Regulation of cholinergic mediated nitric oxide production in rat gastric epithelial cells.
- 240P **Patel JD, Mumford A & Ebenezer IS** Previous exposure to cholecystokinin potentiates the contractile effects of acetylcholine on the guinea pig isolated pyloric sphincter muscle
- 241P **Kories C, Wecking C, Fetscher C & Michel MC** Comparison of muscarinic receptor subtype number and function in male and female urinary bladder
- 242P **Sellers DJ, Templeman L, Chapple CR, Hay DWP, Chess-Williams R** A comparison of NKA responses in the human and pig detrusor
- 243P **Sadraei H, Hajhashemi V** Relaxant effect of ketotifen on rat isolated bladder contractions
- 244P **Li Y, Nau S, Altmann C, Czyborra P & Michel MC** Effects of sphingosine-1-phosphate in human prostate cancer cell lines
- 245P **Bai J, Heemann U & Michel MC** Comparison of renal effects of systemic and intrarenal administration of sphingosylphosphorylcholine
- 246P **Marshall LA, MacLeod MJ & McLay JS** Sodium - lithium countertransport activity in rat proximal tubule cell suspensions.
- 247P **Gomes P & Soares-da-Silva P** Na<sup>+</sup>-independent transporters, LAT-2 and b<sup>0</sup>+ exchange L-dopa with neutral and basic amino acids in opossum kidney cells
- 248P **Gomes P & Soares-da-Silva P** Increased Na<sup>+</sup>K<sup>+</sup> ATPase activity correlates positively with L-dopa uptake in renal OK cells
- 249P **Costa SKP, Hyslop S, Grant AD, Docherty RJ & Brain SD** Evidence that fraction IV (FIV), a purified fraction of *Phoneutria nigriventer* venom (PNV), is responsible for the neurogenic oedema observed in response to PNV in mice
- 250P **Lever IJ, Grant AD, Brain SD & Malcangio M** Capsaicin-evoked release of substance P from the spinal cord of NK<sub>1</sub> receptor wild-type and knockout mice.
- 251P **Gill CH, Strijbos PJ, Bates SA, Cairns WJ, Owen D & Davies CH** Capsazepine inhibits a recombinant human HCN1-mediated current.
- 252P **Harrison C, Smart D, Rowbotham DJ, Lambert DG** Modulation of recombinant rat vanilloid receptor-1 mediated calcium responses by PKC and forskolin
- 253P **Sargent RS, Collins SD, Stratton SC, Chessell IP** The effects of centrally penetrant and peripherally restricted iNOS inhibitors on capsaicin-induced secondary hyperalgesia
- 254P **Stowell JM, Ohashi Y, Hashimoto T, Nelson LE, Maze M, Fujinaga M** Nitrous oxide exerts age-dependent antinociceptive effects in Fischer rats
- 255P **Orii R, Ohashi Y, Hashimoto T, Guo T, Nelson LE, Maze M, Fujinaga M** Evidence for the involvement of spinal cord alpha-1 adrenoceptors in mediation of the antinociceptive effects of nitrous oxide in Fischer rats
- 256P **Millns PJ, Chapman V, Kendall DA** Anandamide evoked Ca<sup>2+</sup> responses in adult rat dorsal root ganglion neurones

- 257P **Johnson EE & Lambert DG** Characterization of the nociceptin receptor in dog brain membranes
- 258P **McDonald J, Barnes TA, Guerrini R, Calo G, Rowbotham DJ & Lambert DG** *In vitro* characterisation of [(pF)Phe4]nociceptin(1-13)NH<sub>2</sub> a novel agonist for the NOP receptor
- 259P **Nicholson R, Small J, Dixon A, Pinnock R, Spanswick D & Lee K** Distribution of 5-HT receptor mRNA in the superficial dorsal horn of the rat spinal cord and in dorsal root ganglia.
- 260P **Vogel V & Sanchez C** The effect of the selective sigma<sub>2</sub> ligand, siramesine, in a rodent model of acute nociception
- 261P **Cao T, Day AJ & Perretti M** Link\_Tumour Necrosis Factor stimulatory gene-6 (LINK\_TSG6) has neutrophil anti-migratory effects *in vivo*
- 262P **Heinemann A, Amann R, Egger T, Schuligoi R & Peskar BA** Effects of sodium salicylate on the expression of cyclooxygenase (COX) isoforms in human peripheral blood mononuclear cells
- 263P **Stumpf V, Wenzel F, Fuhrmann M & Racké K** Effects of phosphatidylinositol 3 (PI3)-kinase inhibitors on arginase activity and NO synthesis in rat NR8383 alveolar macrophages
- 264P **Beer DJ, Scaramellini Carter CM & Charlton SJ** Evidence that BX471 is an inverse agonist at the human CCR1 receptor
- 265P **Carruthers AM, Abraham D, Conroy L, McCourt M, Thompson J & Anderson IK** *In vitro* and *in vivo* characterisation of CAT-192 and 1D11: Neutralising antibodies to Transforming Growth Factor Beta
- 266P **Scola A, Chong LK & Peachell PT** Desensitisation of  $\beta_2$ -adrenoceptor-mediated responses by long-acting  $\beta_2$ -agonists in human lung mast cells
- 267P **Bayley D, Battram CH, Poll CP & Campbell EM** The effect of valsartan on lung remodelling in a mouse model of bleomycin-induced pulmonary fibrosis
- 268P **Clarke DL, Giembycz MA, Yacoub MH & Belvisi MG** Regulation of the release of colony-stimulating factors from human airway smooth muscle cells by isoprostanes
- 269P **Rosethorne EM & Charlton SJ** ATP priming of macrophage-derived chemokine responses in cells expressing the CCR4 receptor
- 270P **Tigani B, Beckmann N, Irouschek M & Fozard JR** Pulmonary effects of repeated allergen challenge in actively sensitised Brown Norway rats assessed non-invasively by magnetic resonance imaging (MRI).
- 271P **Hardstaff JL, Peck MY, Pype JL & Stiernet F** An automated method for evaluating cough numbers in guinea-pigs
- 272P **Toward TJ & Broadley KJ** Adenylyl and guanylyl cyclase and PDE activities toward cAMP and cGMP in isolated lungs during LPS-induced airway reactivity changes.
- 273P **Nevin BJ & Broadley KJ** Effect of inhaled corticosteroid administered to ovalbumin-challenged conscious guinea-pigs
- 274P **Martin TJ & Broadley KJ** Effects of *in vivo* and *in vitro* challenge with ovalbumen on bronchoconstriction of guinea-pig isolated lung to adenosine
- 275P **Birrell MA, McCluskie KS, Wong MH, Yacoub MH & Belvisi MG** Characterisation of an acute model of COPD in the rat
- 276P **Birrell M, McCluskie K, Yacoub MH & Belvisi MG** The role of nitric oxide synthase in an acute model of LPS-induced airway inflammation in the rat
- 277P **McCluskie K, Birrell M, Yacoub MH, Mitchell JA & Belvisi MG** The role of nitric oxide synthase in antigen-induced airway eosinophilia in the rat
- 278P **Shaw S & Foulkes R** The role of PDE isoforms in oxazalone-induced proliferation and adoptively transferred sensitivity in mice
- 279P **Atherton H, Poll CR & Danahay H** The induction of a hypersecretory phenotype by interleukin 13 (IL-13) in human bronchial epithelial cells (HBECs): a role for a calcium activated chloride conductance.
- 280P **de Graaf W, Smith AK, Barnes PJ & Rogers DF** Mucin gene expression in human respiratory epithelial cell lines: activation by phorbol esters and effect of a corticosteroid and cyclic AMP activating agents
- 281P **Wenzel F, Fuhrmann R & Racké K** Expression of EDG receptors in human bronchial epithelial cells, as putative targets of the growth stimulator lysophosphatidic acid
- 282P **Norel X, Walch L & Brink C** U46619-induced contractions: role of prostanoids and nitric oxide in human pulmonary vessels
- 283P **MacLean MR, Douglas SA & Stirrat A** Mechanism of human urotensin-II-induced vasodilation in human small pulmonary arteries
- 284P **Johnson IT, Gardener MJ, Richards G, Burnham M, Glen CD, Edwards G & Weston AH** Twin-pore domain potassium channels in rat pulmonary artery: potential candidates of hypoxic pulmonary vasoconstriction

- 285P **Duncan M, Kendall DA & Ralevic V** CP55,940, a cannabinoid receptor agonist, attenuates sensory neurotransmission via CB<sub>1</sub>-like receptors in the rat isolated mesenteric arterial bed.
- 286P **Ralevic V** Activation of P2X receptors by  $\alpha,\beta$ -methylene ATP evokes a biphasic response (contractions and prolonged relaxation) in the rat isolated mesenteric arterial bed
- 287P **Ralevic V & Randall MD** Effects of sodium deoxycholate and distilled water treatment on the biphasic response to  $\alpha,\beta$ -methylene ATP in the rat isolated mesenteric arterial bed
- 288P **Farmer MR, Ralevic V & Gardiner SM** Capsaicin-sensitive perivascular neurotransmission in isolated perfused mesenteric arterial beds from endotoxaemic rats
- 289P **Farmer MR, Gardiner SM & Ralevic V** Contractile responses to methoxamine of aortae and tail arteries from endotoxaemic rats
- 290P **Harrington LS, Hughes AD & Lymn JS** Effects of organ culture on the contractility of rat mesenteric arteries
- 291P **Berhane Y, Bailey SR & Elliott J** Contractile effects on equine digital arteries and veins of monoamines formed in the caecum.
- 292P **Steenpass V, Altmann C, Fetscher C, Czyborra P & Michel MC** Signal transduction underlying  $\alpha_1$ -adrenoceptor-mediated vasoconstriction in rat mesenteric microvessels
- 293P **Fexby S, Wimalasundera R & Hughes AD** Comparison of histamine- and acetylcholine-induced relaxation of rat isolated mesenteric small arteries
- 294P **Tep-areenan P, Kendall DA & Randall MD** Vasorelaxation to 17  $\beta$ -oestradiol in aortic rings from male and female rats
- 295P **Knowles ID, Centuri3n D, Villal3n CM & Ramage AG** Evidence that central AT<sub>2</sub> as well as AT<sub>1</sub> receptors play a role in the cardiovascular effects evoked by activation of central 5-HT<sub>2A</sub> receptors with quipazine in anaesthetized rats
- 296P **Wakefield ID, Gardiner SM, Valentin J-P & Bennett T** Effects of the nitric oxide synthase inhibitor, S-methyl-L-thiocitrulline (SMTC), on the regional haemodynamic responses to acetylcholine in conscious Sprague-Dawley rats
- 297P **Giuliano F, Vojnovic I & Warner TD** Prostacyclin production from rat intact blood vessels is via the activity of cyclooxygenase-1 as defined by naproxen, paracetamol, rofecoxib and SC560
- 298P **Koschorreck S, Wenzel F, Stichnote C & Rack3 K** Inhibition of phosphodiesterases up-regulates NO synthesis and arginase activity in rat alveolar macrophages
- 299P **Ibarra C, M3ller H, Nedvetsky PI, Lohmann S, Feil R, Hoffmann F & Schmidt HHHW** NO down-regulates expression of its receptor, soluble guanylyl cyclase, in a cGMP-dependent manner in vascular endothelial cells
- 300P **Wingler K, W3nsch S, Kreutz R, Paul M & Schmidt HHHW** Upregulation of NAD(P)H oxidases Nox1 and Nox4 by the renin-angiotensin-system suggests a role in oxidative stress and endothelial dysfunction
- 301P **Parker HT, Crouch NS, Chuck AJ, Flynn DA, Ballard S & Tones MA** Functional potency of endothelin receptor antagonists in human umbilical vein correlates with functional potency in rat aorta and SPA radioligand binding affinity
- 302P **Jarajapu YPR, McGrath JC, MacDonald A & Hillier C**  $\alpha_1$ -Adrenoceptor profile in human skeletal muscle resistance arteries in critical limb ischaemia
- 303P **Jarajapu YPR, Mackenzie JF, Daly C, MacDonald A, McGrath JC & Hillier C** Quantitative imaging of QAPB-associated fluorescence in smooth muscle cells from human skeletal muscle resistance arteries
- 304P **McBride M, Daly C & McGrath JC** Tail arteries from D79N mice show reduced responses to UK14304 compared with wild type
- 305P **Buchan KW, Campbell CJ, Houston P & Ludbrook VJ** Effects of GW7845, a potent, selective PPAR- $\gamma$  agonist, on barrier function of human umbilical vein endothelial cells (HUVEC), in an *in vitro* system
- 306P **Wilson AJ, Alis J, Singer M & Clapp LH** The effects of lipopolysaccharide on levcromakalim- and forskolin-induced relaxation in endothelium-denuded rat aorta
- 307P **Gardener MJ, Burnham MP, Gilling KE, Johnson IT, Edwards G & Weston AH** Identification of twin-pore potassium channels in rat mesenteric arteries
- 308P **McNeish AJ, Wilson WS & Martin W** Antioxidants attenuate EDHF-mediated vasodilatation in the bovine isolated perfused eye
- 309P **McDonald R, Pyne N, Pyne S, Wadsworth RMW & Wainwright CL** Inhibition of smooth muscle cell DNA synthesis by C2-ceramide and inhibitors of sphingosine kinase in primary porcine coronary artery smooth muscle cells.
- 310P **Kennedy S, Clarke B, Wadsworth RM & Wainwright CL** Effect of antiproliferative agents on smooth muscle growth, vascular contraction and endothelium-dependent relaxation in the porcine coronary artery
- 311P **Marshall C, Webb DJ & Maxwell SRJ** Urate prevents native LDL-induced inhibition of endothelium-dependent vasodilatation

- 312P **Clunn GF, Patel MK & Hughes AD** Inhibition of Rho-kinase impairs chemotaxis and mitogenesis and induces a change in morphology in human vascular smooth muscle cells
- 313P **Patel M, Mulloy B, Gallagher K, O'Brien K & Hughes A** The antimitogenic action of the sulphated polysaccharide fucoidan differs from heparin in human vascular smooth muscle cells
- 314P **Flynn D, Chuck T, Ballard S & Tones MA** A comparison of the binding affinity of endothelin (ET) receptor antagonists at recombinant and native ETA receptors
- 315P **McCabe C, Hicks MN, Kane KA & Wainwright CL** Differential effects of endothelin ET<sub>A</sub> and ET<sub>B</sub> receptors stimulation on cardiac electrophysiology of isolated working rabbit hearts.
- 316P **Looi YH, Wainwright CL & Kane KA** Adrenomedullin protects against ischaemia-induced arrhythmias and injury in anaesthetised rats.
- 317P **Juan MJ, Vargas ML, Serrano JS & Hernández J** Diazepam potentiates the positive inotropic effect of dopamine and dobutamine in rat ventricular myocardium
- 318P **Arocas V, Martinez M, Real M, Carceles MD & Hernández J** Cyclic nucleotide phosphodiesterase type 2 regulates the contractile effect mediated by  $\beta_2$  adrenoceptors but not  $\beta_1$  adrenoceptors in human right atria
- 319P **Botchway A, Maginn M, Mow T & Matz J** Effects of the antipsychotic risperidone on normal and hypertrophied guinea-pig cardiac tissue
- 320P **Izumi M, McDonald MC & Thiernemann C** Effects of GW274150, a novel and potent inhibitor of the activity of inducible nitric oxide synthase, on the multiple organ injury in haemorrhagic shock in the anaesthetised rat
- 321P **Burke SG, Furman BL, Del Soldato P, Vojnovic I, Warner T & Wainwright CL** The effect of NO-aspirin on arrhythmias and infarct size in isolated spontaneously hypertensive rat hearts
- 322P **Kis A, Yellon DM & Baxter GF** Inhibition of nuclear factor  $\kappa$ -B does not modify early myocardial reperfusion injury.
- 323P **Hausenloy DJ, Maddock HL, Baxter GF & Yellon DM** Inhibiting mitochondrial permeability transition pore opening: a new paradigm for myocardial preconditioning?
- 324P **Heredia MP, Fernandez M, Benito G & Delgado C** Neuropeptide Y increases 4-aminopyridine-sensitive transient outward potassium current in rat ventricular myocytes
- 325P **D'Souza SP, Yellon DM & Baxter GF** Type-B natri-uretic peptide limits infarct size in rat isolated heart
- 326P **Cindrova T, Skepper JN & Sellers LA** The signalling mechanisms activated concomitantly with the proliferative or apoptotic responses evoked by oxysterols in Human Umbilical Vein Endothelial cells (HUVECs)
- 327P **Guo C & Piacentini L** Inhibition of furin attenuates type I collagen-induced MMP-2 activation in cardiac fibroblasts
- 328P **Li R-C, Cindrova T, Fan T-P, Skepper J & Sellers L** Prostaglandin I<sub>2</sub> receptor-stimulation blocks endo-thelin-1-induced ERK phosphorylation and the sub-sequent proliferation of vascular smooth muscle cells
- 329P **Roberts RE** Role of phosphatidylinositol 3-kinase in  $\alpha_2$  adrenoceptor-mediated vasoconstriction and Erk activation in isolated porcine palmar lateral vein
- 330P **Kumari R & Boarder MR** Regulation of extracellular receptor kinase 1/2 in human vascular smooth muscle cells by G-protein coupled P2Y receptors and PDGF receptors
- 331P **Dixon CJ, Hall JF & Boarder MR** P2Y regulation of hepatocytes: distinct action of ADP and 2-methylthio ADP
- 332P **Brand N, Azam R, Pate A, Yacoub MH & Chester AH** A bioinformatics analysis of the structure and expression of the A-type endothelin receptor (EDNRA) gene
- 333P **Bahra P, Poll CT, Westwick J & Li SW** Pharmacological characterisation of receptor-mediated and store-dependent calcium influx in the human promyelocytic leukaemic cell line (HL60)
- 334P **Jenkinson L, Stables J, Rees S, Vivier R, Coote J, Brown S, Begum A, Wise A & Wilson S** Development of a luciferase reporter gene high throughput screen for 7-transmembrane receptor antagonist identification
- 335P **Dimech CJ, Allen NH, Porter RHP, Sheardown MJ & Strange PG** 5-HT<sub>2C(vsv)</sub> receptor-mediated activation of inositol phosphate accumulation and arachidonic acid release in CHO cells: no evidence of agonist-directed trafficking
- 336P **Joseph SS, Lynham JA, Grace AA, Colledge WH & Kaumann AJ** The effects of (-)-isoprenaline but not of (-)-CGP12177 are markedly reduced at Gly-389  $\beta_1$ -adrenoceptors compared to Arg-389  $\beta_1$ -adrenoceptors
- 337P **van Heeke G, Seamons R, Metais J-Y, Fozard JR, Goff S, Wheatley A, Hall IP** Single nucleotide polymorphisms in the human adenosine A<sub>2B</sub> receptor gene
- 338P **Swan C & Hall IP** Identification of regulatory short open reading frames (SORFs) in the human histamine H1 receptor gene

- 339P **Hawley J, Corteling R & Hall IP** Characterisation of the human histamine H1 receptor in BEAS2B cells
- 340P **Spragg EJ, Charlton SJ & Scaramellini Carter CM** Investigation into the correlation between efficacy and  $K_L:K_H$  affinity ratio for the dopamine  $D_{2S}$  receptor
- 341P **Nelson CP, Gupta P, Napier CM & Challiss RAJ** Affinity estimates for darifenacin, tolterodine and oxybutynin at  $M_2$  and  $M_3$  muscarinic receptors in membrane and intact Chinese hamster ovary cell preparations.
- 342P **Shah B, Dinn AE, John JE, Pinnock RD, Lee K & Patel MK** Lidocaine block of Nav1.3 is modulated by co-expression of  $\beta 1$  and  $\beta 3$  subunits
- 343P **Ju M, Rashleigh LR, Ormond SJ & Wray D** Activation kinetics of rat and human Kv2.1 potassium channel: an N terminal determinant
- 344P **Brain KL, Trout SJ & Cunnane TC** Characterising ATP release from each varicosity on a nerve terminal branch on an impulse-to-impulse basis in the mouse isolated vas deferens
- 345P **Buber R, Cleary L & Docherty JR** Effects of MDMA and cathinone on noradrenaline-evoked contractions of rat right ventricle
- 346P **Aston JC, Beveridge TJR & Elliott JM** MDMA induces localised increases in arc mRNA expression in rat brain in a dose-dependent fashion.
- 347P **Geranton SM, Heal D & Stanford SC** *In vivo*, dual-probe, microdialysis study of the effects of local infusion of *d*-amphetamine on noradrenaline efflux in rat hypothalamus and frontal cortex.
- 348P **Sanchez V, Zeini M, Camarero J, O'Shea E, Bosca L, Green AR & Colado MI** Methamphetamine induces a long term loss of neurofilament protein NF68 in mouse striatum
- 349P **Camarero J, Sanchez V, O'Shea E, Velasquez E, Green AR & Colado MI** A selenium-deficient diet potentiates the long term loss of striatal dopamine induced by MDMA in mice and induces depletion of cortical 5-HT
- 350P **Datla KP, Christidou MA, Widmer WW, Rooparai HK & Dexter DT** Citrus flavonoid tangeretin accumulates in the brain and pre-treatment protects against dopaminergic neuronal loss in a rat model of Parkinson's disease
- 351P **Cardenas A, De Cristobal J, Castillo J, Davalos A, Leza JC, Moro MA, Lorenzo P & Lizasoain I** Citicoline is neuroprotective by reducing glutamate levels after permanent focal cerebral ischaemia in rats
- 352P **Nucci C, Piccirilli S, Nisticò R, Cerulli L & Bagetta G** Intra-vitreous injection of tetanus neurotoxin (TeNT) prevents monocular deprivation-induced apoptosis in the lateral geniculate nucleus (LGN) of new-born rats
- 353P **Pedrosa R & Soares-da-Silva P** Dopamine autooxidation induces neuronal death through generation of  $H_2O_2$
- 354P **Pedrosa R & Soares-da-Silva P** Generation of L-dopa quinones and  $H_2O_2$  as major mechanisms in L-dopa-induced neuronal death: implications in Parkinson's disease
- 355P **Whalley B & Constanti A** Developmental change in inhibitory presynaptic muscarinic receptor subtype in rat olfactory cortex.
- 356P **Johnson LR, Evans NM, Bose S, Craig PJ, O'Neill MJ, Sher E, Gotti C & Volsen SG** An immunohistochemical study of the distribution of the nicotinic acetylcholine receptor (nAChR)  $\beta_4$  subunit in adult rat brain.
- 357P **Nelson LE, Lu J, Guo T, Noormohamed F, Maze M & Saper CS** Alpha-2 adrenoceptor agonist dex-medetomidine-induced hypnosis activates orexin-containing neurones in the perifornical area of Fischer rats
- 358P **Darcy P, Kelly JP, Leonard BE & Henry JA** Effect of a cyclodextrin-lofepramine complex on the motility of *Tetrahymena pyriformis*
- 359P **Lazzarini C, Vecchiato E, Corsi M & Crespi F** Influence of fluoxetine upon extracellular levels of serotonin in rat brain regions: an *in vivo* electrochemical and electrophysiological study
- 360P **Amin YK, Davies MF, Noormohamed FH & Maze M** Development of tolerance to the sedative and anti-nociceptive properties of  $\alpha_2$  adrenergic agonists is dependent on neuronal nitric oxide synthase (nNOS)
- 361P **Huckle RM, Naylor RJ, Tuladhar BR & Rowton SS** Effect of tramadol and its derivatives on analgesia and emesis
- 362P **Huckle RM, Naylor RJ & Tuladhar BR** Anti-emetic effect of (-) tramadol
- 363P **Bastlund JF, Watson WP & Sanchez C** Kindling induced in mice by repeated administration of sub-convulsant doses of nicotine
- 364P **Watson WP, Bastlund JF & Sanchez C** Comparison of the actions of levetiracetam and tiagabine on kindling induced by nicotine or PTZ
- 365P **Harrison PK, Sheridan RD, Green AC, Scott IR & Tattersall JEH** Profile of clinically employed antiepileptics against soman-induced epileptiform activity in the guinea-pig hippocampal slice



- 366P **Patel SM & Ebenezer IS** Effects of chronic administration of the GABA<sub>B</sub> agonist baclofen on food intake and body weight in rats
- 367P **Price M, Murray SD & Ebenezer IS** Synergy between cholecystokinin (CCK) and calcitonin gene-related peptide (CGRP) on suppression of food intake in rats
- 368P **Tite R & Ebenezer IS** Effects of 8-hydroxy-2-(di-n-propylamino)-tetralin (8-OH-DPAT) on water intake in rats
- 369P **Hurtado O, Madrigal JLM, Lizasoain I, Fernandez-Tome P, Leza JC, Lorenzo P & Moro MA** Effect of TACE/ADAM17 inhibition in rat mixed cortical cultures after glutamate exposure
- 370P **Nazir S, Michael GJ, Michael-Titus AT** Distribution of NMDA and AMPA glutamate receptor subunits in rat prefrontal cortex and the effect of chronic imipramine treatment on the GluR2 subunit
- 371P **Bennett S & Gronier B** Modulation of the release of endogenous dopamine from rat striatal slices by agonists of the strychnine-insensitive glycine receptor site of the NMDA receptor.
- 372P **Hawkins A, McCune L, Whelpton R & Michael-Titus AT** Effect of noradrenaline and 5-HT on excitatory amino acid release in rat prefrontal cortex
- 373P **Barik J, Houlihan LM, Bermudez I & Slater Y** Tropisetron (ICS 205-930) interacts with human nicotinic acetylcholine receptors
- 374P **Dhillon K, Lawrence A, Misra A, Croucher MJ, Knight AR & Quirk K** Characterisation of [<sup>3</sup>H]ZM 241385 binding to rat hippocampal membranes
- 375P **Haslam CP, Charlton SJ** Characterisation of  $\alpha_1$  adrenoceptor subtypes in rat cortex
- 376P **Choudhury HI, McAllister G, Seabrook GR, Guiblin A & Maubach K** Pharmacology of 5-HT receptors in the CA1 region of rat hippocampal brain slices *in vitro*
- 377P **Hawcock AB, Huguet C & Gale JD** A novel 5-HT<sub>4</sub> receptor assay using a preparation of pig striatum: a comparison of 5-HT<sub>4</sub> receptor pharmacology with guinea-pig
- 378P **Kennedy MD & Strange PG** Binding and efficacy of antipsychotic drugs at the human 5-HT<sub>1A</sub> receptor
- 379P **Tordera R, Gray K, Sprakes M, Pei Q & Sharp T** Effect of paroxetine in combination with the 5-HT<sub>1A</sub> antagonists, NAD-299 and LY 426965, on expression of the immediate early gene *Arc* in the rat brain
- 380P **Roberts DJ, Lin HL & Strange PG** Inhibition of [<sup>3</sup>H]NPA binding by GPP(NH)P and suramin at dopamine D<sub>2</sub> receptors.
- 381P **Alexander SPH, Aynge J & Pocock N** Differential centrifugation reveals redistribution of A<sub>2A</sub> adenosine receptor binding in porcine striatal slices after exposure to adenosine
- 382P **Dhillon K, Lawrence A, Misra A, Croucher MJ, Palmer AM, Esiri M, Knight AR & Quirk K** Comparison of [<sup>3</sup>H]DPCPX binding to rat and human cortical membranes
- 383P **Owen DE, Brough CA, Chen J & Smart D** FLIPR-based assay for screening inhibitors of the multidrug resistance gene MDR1 *in vitro*
- 384P **Bell AR, Walker L, Graham MJ, Whittaker E, Moorcraft CL, Crewe HK & Lennard MS** The expression of dog hepatic CYP2B11, CYP3A12, CYP2C21, CYP2C41 mRNA, protein and enzymatic analysis of CYP3A4, CYP2C19 and CYP2C9 substrates in dog liver microsomes

## DEMONSTRATIONS

- 385P **Hughes I, Huckbody K & Atkinson J** The EpharNet HYPERTENSION Teaching Resource
- 386P **Dewhurst DG, Jones H, Page CP & Cromar S** A computer simulation of experiments to demonstrate pharmacological control of guinea-pig airways

## ABSTRACTS FROM SYMPOSIA PRESENTED AT THE MEETING

*Abstracts from symposia have not been subjected to the refereeing process undergone by the other communications presented at the meeting*

### CHEMOKINE ANTAGONISTS: FUTURE SELECTIVE THERAPY FOR INFECTION, INFLAMMATION, ASTHMA, ALLERGY, CANCER AND TRANSPLANTATION

*Monday 17<sup>th</sup> December 2001*

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| 387P <b>Kunkel S</b> Chemokines and their diverse biological paradigms   | 391P <b>Smith GL</b> Chemokine inhibitors from viruses  |
| 388P <b>LaRosa G</b> Chemokine receptors and drug development: the challenges  | 392P <b>Muller A</b> Chemokines and cancer  |
| 389P <b>Sarau HM, Underwood DC, Widdowson KL, Griswold DE, White JR &amp; Podolin PL</b> Role of CXCR2 antagonists in inflammatory disease | 393P <b>Newton RC</b> CCR3 as a therapeutic target for asthma and allergic diseases                                   |
| 390P <b>Springer M</b> CCR5 antagonists with anti-HIV activity: is inhibition on the cell surface sufficient?                              | 394P <b>Nelson P</b> Dissection of inflammatory events using chemokine antagonists: lessons from transplant rejection |

### GENOMICS AND PROTEOMICS IN PHARMACOLOGY

*Tuesday 18<sup>th</sup> December*

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| 395P <b>Godovac-Zimmerman J</b> Application of proteomics to the study of phosphorylation cascades   | 397P <b>Bailey DS</b> Exploiting genomics and proteomics for rapid, early-stage drug discovery |
| 396P <b>Lindpaintner K</b> Genetics and genomics in the discovery/development of new diagnostics and pharmaceuticals: opportunities and challenges |  |

### STEROIDS ON THE BRAIN

*Tuesday 18<sup>th</sup> December 2001*

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| 398P <b>Azcoita I, DonCarlos LL &amp; Garcia-Segura LM</b> Oestrogen and brain vulnerability  | 400P <b>Gillies G, Murray H &amp; Dexter D</b> Organizational and activational effects of sex steroid hormones in the brain: implications for growth, neuroprotection and disease susceptibility |
| 399P <b>Simpkins JW, Yang SH, Liu R, Wen Y, Watson DG, Perez EJ, Fan T &amp; Day AL</b> Oestrogen receptor-independent mechanisms for neuroprotection in stroke | 401P <b>de Kloet R, Oitzl M &amp; Vreugdenhil E</b> Brain corticosteroid receptors and responsive genes: targets for therapy of stress-related disorders   |
|   | 402P <b>Seckl JR</b> Prenatal glucocorticoid programming of the brain  |

### NEW PERSPECTIVES ON THE PHARMACOLOGY AND TOXICOLOGY OF PARACETAMOL

*Thursday 20<sup>th</sup> December 2001*

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| 403P <b>Simmons DL</b> New studies of the pharmacology of paracetamol | 405P <b>Park BK</b> Biochemical and molecular studies of paracetamol toxicity |
| 404P <b>Jones AL</b> What is new in paracetamol poisoning?            |   |