ORAL COMMUNICATIONS

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

1P **Hannon JP, Petrucci C, Fehlmann D, Schaeffer J, Viollet C, Epelbaum J & Hoyer D** Somatostatin sst_2 receptor knockout mice: patterns of sst_{1-5} receptor mRNA and binding in brain *in situ* hybridisation histochemistry and receptor autoradiography

2P **Nelson RM, Green AR & Hainsworth AH** Electrophysiological actions of GABA and clomethiazole on human recombinant $GABA_A$ receptors

3P **Jones RSG & Cunningham MO** Effects of sodium valproate on GABA and glutamate release in the rat entorhinal cortex

4P **Cunningham MO & Jones RSG** Does phenytoin modify glutamate and GABA release via an interaction with presynaptic $GABA_B$ receptors?

5P **Stacey AE & Jones RSG** Activation of the neurokinin-3 (NK3) receptor enhances release of glutamate but not GABA in the rat entorhinal cortex

6P **Woodhall G, Strawbridge M, Law A & Jones RSG** Group III metabotropic glutamate receptors modulate epileptiform activity in the rat entorhinal cortex

7P **Butler M, O'Connor JJ & Moynagh PN** An evaluation of the effects of TNFα on long-term potentiation in the rat dentate gyrus *in vitro*

8P **Freir DB & Herron CE** The effects of the L-type Ca^{2+} channel agonist BAY K8644 and APV on LTP in the hippocampal CA1 region *in vivo*

9P **Klyubin I, Anwyl R & Rowan MJ** Acute stress blocks both NMDA receptor-dependent and independent LTP in rat hippocampus area CA1 *in vivo*

10P **Murray HJ & O'Connor JJ** An inhibitory role for cyclooxygenase-2 in long term depression in the rat dentate gyrus *in vitro*

11P **Mitchell S, Thomas G, Savill J, Brady HR & Godson C** Lipoxins, lipoxin stable analogues and aspirin-triggered lipoxins stimulate phagocytosis of apoptotic PMN *in vitro* and *in vivo*

12P **Carmody JJ, Giles BE, Ting ML & Walker JS** Sex hormones and NSAID analgesic response in rats

13P **Dolan S & Nolan AM** Differential up-regulation of prostaglandin E receptor subtype mRNA in spinal cord in acute and chronic models of inflammation

14P **De Alba J, Clayton NM, Collins SD & Knowles RG** Role of the inducible isoform of nitric oxide synthase (iNOS) in a model of established inflammatory pain in the rat

15P **Rawlingson A & Brain SD** Effect of a selective iNOS inhibitor on protein nitration, neutrophil accumulation and plasma extravasation in a rat model of thermal injury

16P **Ralevic V** Endothelial nitric oxide modulates capsaicin-sensitive sensory neurotransmission in the rat isolated mesenteric arterial bed

17P **Grant AD, Akhtar R & Brain SD** Effect of neurokinin B on plasma extravasation after intradermal and intravenous administration in tachykinin NK_1 wildtype and knockout mice

18P **Clayton NM, O'Shaughnessy CT, Marshall F & Bountra C** CB1 and CB2 cannabinoid receptors are implicated in inflammatory hypersensitivity to pain

19P **Costa SKP, Brain SD & Docherty RJ** An electrophysiological investigation into mechanisms via which the venom from the *Phoneutria nigriventer* (PNV) spider activates the rat vagus nerve

20P **Hasseldine ARG, Harper EA & Black JW** Beta adrenoceptor function in transgenic mice with cardiac-specific overexpression of the β_2 adrenoceptor

21P **Ralevic V, Jankowski J & Schlüter H** Effects of adenosine polyphospho guanosines (Ap_nGs) and guanosine polyphospho guanosines (Gp_nGs) in the rat isolated mesenteric arterial bed

22P **Gitlin JM, Stanford SJ, Evans TW, Anning PB & Mitchell JA** Evidence for the sustained phase of ATP-induced vasodilation being mediated by endothelial-derived hyperpolarizing factor

23P **Gitlin JM, Stanford SJ, Evans TW, Anning PB & Mitchell JA** The second phase of ATP-evoked relaxation in the rat isolated mesenteric artery bed may be independent of P2Y receptors

24P **White PJ & Boarder MR** Nucleotide regulation of proliferation in human vascular smooth muscle cells

25P **Ho WSV, Bottrill FE, White R & Hiley CR** Anandamide-induced relaxation in rat coronary artery is not mediated by the vanilloid receptor VR1

26P **Mistry H, Ali R, Bottrill FE, Hiley CR & White R** Effects of anoxia on mechanisms of relaxation to isoprenaline in rat small mesenteric artery

27P **Wanstall JC, Gambino A, Jeffery TK, Cahill MM, Bellomo D, Hayward N & Kay GF** Vascular endothelial growth factor-B deficient mice exhibit normal endothelium-dependent vasorelaxation but subnormal response to chronic hypoxia

28P **Wilson SJ, Mar GJ, Madhavan P, Fulton GJ, Keenan AK & Feeley TM** Expression of heme oxygenase-1 in an experimental model of angioplasty and vein grafting: modulation by cholesterol and vitamin E

29P **Katugampola SD & Davenport AP** From gene to function: the recently adopted orphan receptor for the novel vasodilator peptide ghrelin is upregulated in human atherosclerotic coronary artery

30P **Allen A, Kelso E, Bell D & McDermott B** Increased potency of neuropeptide Y to attenuate contraction via Y_2 receptors during the development of cardiomyocyte hypertrophy

31P **Lee GR, Bell D & McDermott BJ** Evidence for enhanced endothelin (ET_B) receptor affinity during the progression of hypertension-induced ventricular cardiomyocyte hypertrophy

32P **Berry CB & McBean GJ** Structure activity relationships in the modulation of glutamate transport in synaptosomes and HEK_{GLT1} cells by fatty acids

33P **Devedasan C, Starr BS & Doyle KM** Effect of arcaine and Ro 25-6981 on locomotor activity in naïve and reserpinised mice

34P **Cleary L, Lavelle A & Docherty J** Comparison of amphetamine derivatives in their actions at α_2-adrenoceptors

35P **Murphy JEJ, Cannon DM, Guiry P, McCormack P, Baird AW, McBean GJ & Keenan AK** A comparison of the *in vitro* effects of (±)-4-methylthioamphetamine and (±)-MDMA on 5-HT re-uptake in the brain and on vascular responses to 5-HT

36P **Beveridge TJR, Pei Q, Zetterström TSC & Elliott JM** Effect of a prior neurotoxic dose of MDMA on the expression of ARC mRNA in response to acute MDMA administration

37P **O'Loinsigh E, Kelly JP & O'Boyle KM** Evidence for a critical role of body temperature in the modulation of MDMA neurotoxicity by drugs of abuse

38P **O'Connor TJ, Connelly D & Kelly JP** Methylenedioxymethamphetamine (MDMA; 'Ecstasy') suppresses the primary IgG response to an antigenic challenge in rats

39P **Baird AW, Moriarty D, Guiry P, McBean GJ & Keenan AK** (±)-3,4 methylenedioxymethamphetamine (MDMA) stimulates electrogenic ion transport in rat colonic mucosa *in vitro*

40P **Atkinson PJ, Duxon MS, Price GW, Hastie PG & Thomas DR** Paroxetine down-regulates 5-HT_7 receptors in rat hypothalamus but not hippocampus following chronic administration

41P **Brough SJ, Jerman JC, Porter R, Martin J, Pilleux JP & Smart D** Pharmacological characterisation of orexin receptor subtype selective ligands

42P **Nunn C, Feuerbach D, Lin X, Peter R & Hoyer D** Functional expression and pharmacological characterisation of the goldfish somatostatin sst_5 receptor

43P **Selkirk JV, Rhodes A, Price GW, McIlhenney RAJ, Nahorski SR & Challiss RAJ** Pharmacological characterization of the truncated, soluble N-terminus of the Type 1α mGluR: comparison to the native full-length receptor

44P **Pennington RA & Prince RJ** Binding site selectivity of epibatidine at the muscle nicotinic acetylcholine receptor

45P **Lummis SCR & Deane CM** The role and predicted propensity of conserved proline residues in the mouse 5-HT_{3A} receptor

46P **Jones CA, Simon J, Humphrey PPA & Chessell IP** Co-expression and functional characterisation of rat $P2X_4$ and $P2X_6$ subunits in mammalian cells

47P **Madziva MT, Galtrey CM, Vyas B, Chapman ER & Edwardson JM** Synaptotagmin I rescues muscarinic acetylcholine receptor internalisation inhibited by either dominant-negative arrestin or dominant-negative dynamin

48P **Willets JM, Challiss RAJ & Nahorski SR** M_3 muscarinic receptor/Gq uncoupling is enhanced by overexpression of GRK6 but not GRK3

49P **Neish C, Martin IL, Henderson RM & Edwardson JM** Direct visualization of ligand-protein interactions using atomic force microscopy

50P **Baker JG, Hall IP & Hill SJ** Pharmacology and direct visualization of the fluorescent β_2-adrenoceptor ligand BODIPY-CGP 12177 in CHO cells transfected with the human β_2-adrenoceptor

51P **Mayer G & Taberner PV** Stimulation of insulin secretion *in vivo* by the imidazoline analogue KU14R

52P **Elliott JC, Harrold JA, Brodin P, Enquist K, Bäckman A, Byström M, Lindgren K & Williams G** Changes in rat melanin concentrating hormone (MCH) and MCH receptor (SLC-1) mRNA induced by dietary obesity

53P **Higgins AJ, Ekwuribe N, Dyakonov T, Langevin M, Miller M, Paige L, Surguladze D, Wille K & Smalley M** Enhanced bioefficacy of a novel orally active calcitonin analogue

54P **Borman RA, Day N, Harmer DW, Ellis ES, Sheldrick RLG, Carey J, Tilford N, Coleman RA & Baxter GS** Functional evidence for a 5-HT_{2B} receptor controlling motility in human isolated colon

55P **Maderna P, Brady HR & Godson C** Lipoxins induce reorganisation of the actin cytoskeleton in monocyte-derived macrophages: the role of RhoA

56P **Chew BK, McKirdy SW, Naylor IL & Sharpe DT** The pharmacological implications of the association and activity of mast cells and myofibroblasts in peri-implant fibrosis

57P **Leonard M, Brayden DJ & Baird AW** An *in vitro* intestinal cell culture model of M-cells displays a TH1 type cytokine profile

58P **Nee L, McMorrow T & Ryan MP** Signalling pathways involved in the regulation of MMP-9 (gelatinase B) and TIMP-1 by renal proximal tubular cells in response to TNFα and IL-1β

59P **Kiely B & Ryan MP** Signalling mechanisms involved in lateration of epithelial barrier function by cyclosporine in renal MDCK cells

60P **Nathwani SM, McMorrow T, Tuite N, Dempsey M & Ryan MP** Pathways involved in cisplatin-induced apoptosis in renal tubular epithelial LLC-PK_1 cells

61P **Danahay H & Poll CT** Niflumic acid (NFA) inhibits UTP-stimulated increases in short circuit current (ISC) in human bronchial epithelial cells (HBECs)

62P **Kemp PA, Sugar RA & Jackson AD** Mucus secretion from differentiated human bronchial epithelial cells: regulation through the purinoceptor $P2Y_2$

63P **Morecroft I, Keegan A & MacLean MR** Attenuation of pulmonary hypertension in 5-HT_{1B} receptor knockout mice

64P **Keegan A, Morecroft I & MacLean M** The effect of 5-$HT_{1B/1D}$ receptor antagonist treatment on indices of chronic hypoxia-induced pulmonary hypertension in rats

65P **Toward TJ & Broadley KJ** Effects of rolipram and dexamethasone on airway function, cell influx and lung histology of guinea-pigs chronically exposed to LPS

66P **Chong LK, Chess-Williams R & Peachell PT** Pharmacological characterisation of the β-adrenoceptor expressed by human lung mast cells

67P **Peachell PT, Weston MC & Dummer J** Characterisation of phosphodiesterases in human lung mast cells and basophils

68P **Trifilieff A, Wyss D, Walker C, Mazzoni L & Hersperger R** Effect of a novel PDE4 inhibitor, NVP-ABE171, a 1,7-naphthyridine derivative in models of lung inflammation in mice and rats

69P **Lewis CA, Hoshiko K, Pfannkuche H-J, Ball H, Subramaniam N, Gerspacher M & Fozard JR** Airways pharmacology of DNK333A, a dual NK_1/NK_2 neurokinin receptor antagonist

70P **Buchheit K-H, Manley PW, Quast U & Fozard JR** KCO912: a potent and selective opener of ATP-dependent potassium (K_{ATP}) channels with selectivity for the airways

POSTER COMMUNICATIONS

71P **Bahra P, Poll CT, Westwick J & Li SW** Characterisation of P2 purinoceptors mediating increases in intracellular free calcium levels in HL60 cells using FLIPR (Fluorescence Imaging Plate Reader)

72P **Prentice DJ, Kelly MDW, Ledent C & Hourani SMO** Effect of A_{2A} adenosine receptor knockout on relaxant effects of adenosine and analogues in mouse isolated aorta

73P **Hourani SMO, Mackins CJ, Kelly MDW, Ledent C & Prentice DJ** Effect of A_{2A} adenosine receptor knockout on inhibition by NECA and CGS21680 of KCl-induced contractions in murine vas deferens

74P **Alexander SPH, Badial J, Badial T & Ralevic V** A comparative study of P2 receptor effects on smooth muscle tone in the porcine isolated common digital artery and palmar lateral vein

75P **Kuc RE, Maguire JJ & Davenport AP** Urotensin-II is a potent constrictor of human atherosclerotic coronary arteries with immunoreactive peptide localised to the atherosclerotic plaque

76P **Brady F, Bakhle YS & Bell C** Does endogenous substance P modulate baroreflex gain in the rat?

77P **Borg JJ, Hancox JC, Spencer IC & Kozlowski RZ** An anionic background conductance (I_{AB}) in guinea-pig isolated ventricular myocytes and its modulation by tefluthrin

78P **Lane S, Julia-Sapé M & Allshire A** Hypophosphorylation of cytoskeletal and myofibrillar proteins correlates with hypercontractility of reperfused cardiomyocytes

79P **Bell D, Allen AR, Kelso EJ & McDermott BJ** Induction of hypertrophic responsiveness to neuropeptide Y is mediated by the cardiomyocyte Y5 receptor in the spontaneously hypertensive rat

80P **Headley EL, Hiley CR & Ford WR** Angiotensin II reduces infarct size in rat isolated perfused hearts partly via stimulation of AT_1 receptors

81P **Katugampola SD & Davenport AP** Angiotensin type I receptor antagonist losartan at therapeutic concentrations, binds to thromboxane receptors in human cardiovascular and renal tissue

82P **Katugampola SD & Davenport AP** Comparison of thromboxane (TP) and angiotensin (AT_1 and AT_2) receptors in human saphenous vein: density and phenotypic changes associated with vein graft disease

83P **Freeman JE, Godson C & Kinsella BT** An investigation into thromboxane A_2 and lipoxin A_4 signalling in primary human mesangial cells

84P **Doorty KB, Golubeva T, Gorelov A, Rochev Y, Dawson K, Gallagher WM & Keenan AK** Investigation of co-polymer films as drug delivery systems for prevention of vascular smooth muscle cell proliferation

85P **Dee J, Lambkin I, Pinilla C, Higgins L, Yu XQ & O'Mahony D** Investigation of the accessibility of a membrane translocating sequence (MTS) grafted onto polystyrene particles to epithelial cells and bioavailability of a radiolabelled MTS drug concentrate *in vivo*

86P **Jones J, Dunne M, Tsai J, Paul R, Cudmore S & Harkin P** Analytical method development for the determination of compacted DNA and protamine sulphate in lipoplexes

87P **Gitlin JM, Stanford SJ, Evans TW, Anning PB & Mitchell JA** ATP induces a biphasic dilator response in mesenteric vessels from Sprague Dawley as well as Wistar rats

88P **Farmer MR, Gardiner SM & Ralevic V** Vascular responses to methoxamine in isolated perfused mesenteric arterial beds from endotoxaemic rats

89P **Tep-areenan P, Kendall DA & Randall MD** Mechanisms of testosterone-induced vasorelaxation in the rat isolated mesenteric arterial bed

90P **Stanford SJ, Pepper JR & Mitchell JA** Cytokine-induced apoptosis of human cultured venous smooth muscle cells

91P **Roberts RE** The EGF receptor tyrosine kinase inhibitor AG1478 prevents α2 adrenoceptor-mediated vasoconstriction and ERK activation in porcine palmar lateral vein

92P **Usher C, McHugh R & Keenan AK** Effects of cyclooxygenase inhibition on endothelium-dependent relaxation in rat aorta

93P **Lawler OA & Kinsella BT** The statins and prostacyclin receptor signalling

94P **Mueller A & Strange P** Characterisation of chemokine-triggered internalisation and phosphorylation of the chemokine receptor CCR5

95P **Liu YZ, Rich K, Coldwell MC, Wilkinson GF, McHale M, Sullivan E & Thong B** Characterisation of [^{35}S]GTPγS binding to CHO cell membranes expressing human CCR4 receptors

96P **Rawlins P, McHale M, Sullivan E & Coldwell MC** Characterisation of agonist-induced inhibition of cyclic AMP accumulation in cells expressing human CCR4 receptor

97P **Kelley LP & Kinsella B** Desensitisation of the α isoform of the human thromboxane A_2 receptor by prostaglandin D_2 receptor (DP)

98P **Miggin SM & Kinsella BT** MAPK activation through the human thromboxane A_2 receptor α and β isoforms

99P **Finlay D, Furlong F, Healy V & Martin F** MAP kinase pathway signalling is essential for extracellular matrix determined mammary epithelial cell survival

100P **Murray F, Pyne NJ & MacLean M** Evaluation of phosphodiesterase-3 in normoxic and hypoxic human pulmonary artery smooth muscle cells

101P **Brown T, Clayton N, Brazdil R, Wiseman J, Naylor A & Bountra C** The effects of a selective COX-2 inhibitor, GR253035X, in rat models of inflammatory hyperalgesia assessed using behavioural readouts and by quantitation of spinal immunochemistry

102P **Honey AC, Bland-Ward PA, Alderton WK, Feniuk W & Humphrey PPA** The nNOS inhibitor, GW289013, inhibits neurogenic vasodilation in the anaesthetised rat

103P **Mackerel AJ, Fadden AJ, Hislip SJ, FitzGerald MX & O'Connor MC** Neutrophil activation by FMLP and IL-8: differences in involvement of RHOA

104P **Mackerel J** Pre-exposure to FMLP causes normal neutrophils to mimic neutrophils from patients with acute pulmonary infection

105P **McMahon R, Murphy M, Gardiner C, Godson C, Martin F & Brady HR** Gremlin inhibits DNA synthesis and proliferation in human mesangial cells by a BMP-independent mechanism

106P **Tigani B, Hannon JP, Mazzoni L & Fozard J** Effects of budesonide and IMM125 on antigen-induced airway inflammation and hyperresponsiveness to adenosine (ADO) in actively sensitised Brown Norway (BN) rats

107P **Fozard JR, Tigani B & Hannon JP** Hyperresponsiveness of lung parenchymal strips to adenosine receptor agonists induced by antigen challenge in actively sensitised Brown Norway (BN) rats

108P **Smart LJ, Chong LK, Rostami-Hodjegan A & Peachell PT** Influence of the Thr164Ile polymorphism in the β_2-adrenoceptor on the effects of β-agonists on human lung mast cells

109P **Sharma SC** Effect of pycnogenol on mast cell histamine release

110P **Brahmadevara N, Brawley L, Shaw AM & MacDonald A** Pharmacological differences between atypical β-adrenoceptors in rat aorta and β_3-adrenoceptors in rat colon

111P **Boorman PA, Welsh NJ, Watt G & Black JW** SR59230A is non-selective between β-adrenoceptor subtypes in mouse colon circular smooth muscle

112P **Baker JG, Hall IP & Hill SJ** Pharmacology of CGP 12177 in CHO cells transfected with the human β_2-adrenoceptor

113P **Seigel T & Dean PM** Homology modelling of the 11β-hydroxysteroid dehydrogenase isozymes

114P **Byrne D, Leonard M, Mah S, Lo D, Baird A, O'Mahony D & Brayden D** Differential expression of genes in a Peyer's Patch M cell co-culture model by TOGA™

115P **Byrne D, Higgins L, Conway M, Mah S, Lo D, Brayden D & O'Mahony D** Analysis of differential expression of genes in *in vivo* Peyer's Patch M cell models by TOGA™

116P **Higgins LM, Donnelly GG, Lambkin I, O'Malley D, Dee J, Byrne D, Smith M, Brayden D & O'Mahony D** Screening phage display libraries *in vivo* for the identification of intestinal targeting ligands

117P **Donnelly GG, Daly L, Higgins L, O'Mahony D & Mills KHG** Modulation of innate and acquired immune responses with CPG motifs from bacterial DNA

118P **Patel JD & Ebenezer IS** Evidence that leptin acts as a short term satiety factor

119P **Ebenezer IS** Nicotine dependence and the contingent negative variation in rats

120P **Shih M-F & Taberner PV** Effects of forskolin on adipose tissue cAMP accumulation during chronic ethanol treatment

121P **Croft AP, O'Callaghan MJ & Little HJ** Effects of chronic ethanol consumption and abstinence on D1-like receptor binding

122P **Matthews KL, Heslop KE, Chapman PF & Francis PT** Biochemical characterisation of mice transgenic for a mutation in amyloid precursor protein (APP) known to cause familial Alzheimer's disease

123P **Amantea D, Tessari M, Chiamulera C & Bowery NG** (-)Baclofen reduces [^{3}H]-dopamine release from rat ventral tegmental area slices via $GABA_B$ receptor activation

124P **Princivalle AP, Duncan JS, Thom M & Bowery NG** $GABA_B$ receptor distribution in hippocampi resected from patients with temporal lobe epilepsy: antagonist binding

125P **Harrison PK, Sheridan RD, Green AC & Tattersall JEH** Spectrum of anticonvulsant activity against soman-induced bursting in the guinea-pig *in vitro* hippocampus

126P **Jagger L, Parker L, Hope DT & Mason R** Effect of magnesium ions on bicuculline-induced epileptiform activity in hippocampal organotypic slices and monolayer hippocampal neuronal networks

127P **Watson WP** Comparison of levetiracetam and phenytoin in 6Hz versus 60 Hz electroshock seizure models

128P **Smith AJ, Atack JR & Sur C** The $[K^+,Cl^-]$-co-transport inhibitor R(+)-DIOA selectively inhibits GABA-stimulated $^{36}Cl^-$ ion influx at diazepam-insensitive human recombinant $GABA_A$ receptor subtypes

129P **Singewald N, Salchner P & Sharp T** Anxiogenic drugs induce FOS expression in a specific set of forebrain regions in the rat

130P **Haughey J, Bacon CL, Gallagher HC & Regan CM** Modulation of cyclin protein expression during the C6 glioma G1 phase by the anticonvulsant, valproate

131P **Duxon M, Stretton J, Porter R, Pilleux J-P, Martin JD & Upton N** Evidence that orexin-A-evoked grooming, but not water intake, in the rat is mediated by the orexin-1 (OX_1) receptor

132P **Gartlon J, Duxon M, Porter R, Pilleux J-P, Hagan JJ, Hunter AJ, Upton N & Jones DNC** Role of OX_1 and OX_2 receptors in mediating the motor activity response to the orexins

133P **Dempsie Y, Smith S, Cheetham S, Mason R & Guerin C** Co-localisation of neuropeptide Y5 receptors on neurons containing orexin A, orexin B or melanin concentrating hormone in the rat lateral hypothalamus

134P **Boothman LJ, Allers K, Rasmussen K & Sharp T** Electrophysiological evidence for 5-HT_2 receptor-mediated control of 5-HT cell firing in the dorsal raphe nucleus of the anaesthetised rat

135P **Tordera R, Pei Q & Sharp T** The 5-HT_2 agonist DOI increases the expression of the immediate early genes *arc, homer, c-fos* and *zif-268* in rat brain regions *ex vivo*

136P **Langmead CJ, Watson J, Herdon HJ, Scott CM & Price GW** Effects of 5-HT, fenfluramine, ketanserin and the 5-HT autoreceptor antagonist, SB-272183, on basal [^{3}H]5-HT release from guinea-pig cortical slices in the presence and absence of paroxetine

137P **Díaz A, Castro ME, del Olmo E & Pazos A** Effect of chronic fluoxetine in combination with WAY 100635 on 5-HT_{1A} receptors: an autoradiographic and electrophysiological study in rat brain

138P **Sergides IY, van der Graaf PH, Tang KW & Naylor AM** Species differences in the apparent potency of serotonin re-uptake inhibitors (SRIs) at the human, dog and rat serotonin transporters

139P **Scott C, Shaw TE, Soffin EM, Davies CH, Harries MH, Price GW, Middlemiss DN & Watson J** Investigation of high and low agonist affinity states of 5-HT_{1A} receptors in rat hippocampus

140P **Alder JT, Johanssen AM & Strange PG** The affinity and efficacy of a series of dipropylaminotetralins at the h5-HT_{1A} receptor

141P **Sartori S, Burnet PWJ, Pei Q, Singewald N, Harrison PJ & Sharp T** Chronic antidepressant drug treatment does not alter neurokinin-1 receptor expression in the rat brain regions

142P **Mechan AO, Esteban B, Colado MI, Elliott JM & Green AR** Studies on the mechanisms involved in the degeneration of dopamine nerve endings in mouse brain following administration of MDMA ('Ecstasy')

143P **Price KL & Lummis SCR** The role of tyrosine residues in the extracellular domain of the mouse 5-HT_3 receptor

144P **Naseem AA, Brown JT, Comet M-A, Marsland H & Prince RJ** Site-directed mutagenesis of $\alpha3\beta4$ neuronal nicotinic acetylcholine receptor agonist binding sites

145P **Jones SC, Troop HM, Jane DE & Roberts PJ** Pharmacological characterization of novel AMPA receptor ligands in rat brain

146P **Pei Q, Bullard E, Sprakes ME, Zetterström T & Sharp T** Effect of chronic electroconvulsive shock and antidepressant drugs on mRNA expression of AMPA receptor subunits in the rat brain

147P **Devadasan C, Starr BS & Doyle KM** The effect of the co-administration of eliprodil with memantine in naïve and reserpinised rats

148P **Nelson RM, Green AR, Lambert DG & Hainsworth AH** Effects of extracellular calcium removal, NPPB and DL-TBOA on glutamate efflux from rat cortical prisms in response to simulated ischaemia *in vitro*

149P **O'Dwyer L, Rowan MJ & Anwyl R** A presynaptic GluR5 kainate receptor modulates excitatory synaptic transmission in the medial perforant path-granule cell synapse in the rat dentate gyrus

150P **Li S, Anwyl R & Rowan MJ** Methoctramine induces a fast onset, long-lasting potentiation in the hippocampal CA1 region of the anaesthetised rat

151P **Murphy KJ, Lynch MA & Regan CM** Neuroplastic events required for LTP and avoidance learning are impaired by opiate addiction

152P **Shakesby AC, Anwyl R & Rowan MJ** GABA-ergic and glutamatergic mechanisms in stress modulation of synaptic plasticity in the hippocampus of anaesthetised rats

153P **Brazdil R, Kozlowski CM, Clayton NM, Stratton SC & Bountra C** Inhibition of colorectal distension-induced c-fos expression in the spinal cord following MK801 and GV196771 in the anaesthetised rat

154P **Martindale J, Bland-Ward PA & Chessell IP** Secondary hyperalgesia following intraplantar capsaicin injection in the anaesthetised rat

155P **Gray RA, Lappin SC & Chessell IP** Modulation of voltage-gated calcium and potassium currents by selective adenosine A1 receptor agonists in rat isolated dorsal root ganglion cells

156P **Medhurst S, Bowes M, Kidd BL, Glatt M, Muller M, Hattenburger M, Vaxelaire J, O'Reilly T, Green J, Fox AJ, Urban L & Walker K** Antinociceptive effects of the bisphosphonate, zoledronic acid, in a novel rat model of bone cancer pain

157P **Brown T, Clayton N, Stratton S, Bountra C & Sheehan M** The anti-hyperalgesic effects of the high and low intrinsic efficacy adenosine receptor agonists GR79236X and GR190178X in a mouse model of inflammatory hyperalgesia

158P **McNair K, Kesingland A, Urban L & Fox A** The role of central and peripheral bradykinin B1 receptors in models of neuropathic and inflammatory pain in the rat

159P **Panesar MS, Bevan S & Urban L** Pharmacological evaluation of the mouse model of compound 48/80 induced itch

160P **Finn DP, Beckett SRG, Webster P, Sconce J, Sahota A, Jhaveri MD, Marsden CA & Chapman V** Cannabinoid CB_1 receptors in the periaqueductal grey may modulate formalin-evoked pain behaviour in rats

161P **Mato S, Rodriguez-Puertas R, González-Maeso J, Meana J, Sallés J & Pazos** Cannabinoid receptors in postmortem human brain: a radiometric and transductional study in major depression

162P **Ralevic V, Kendall DA, Jerman JC, Middlemiss DN & Smart D** Cannabinoid activation of recombinant and endogenous vanilloid receptors

163P **Litchfield M, Ralevic V & Kendall DA** No influence of cannabinoids on electrically-stimulated release of [^{3}H]-noradrenaline from rat atria

164P **Ihenetu K, Molleman A, Parsons ME & Whelan CJ** Modulation of interleukin-8 (IL-8) secretion in the human colon epithelial cell line HT-29 by cannabinoids

165P **Pula G, Mundell S, Matharu AL, Roberts PJ & Kelly E** Agonist-induced internalisation of mGluR1 splice variants A and C (mGluR1A and mGluR1C)

166P **Croucher MJ, Jane DE & Thomas LS** Actions of the mGluR subtype 5 ligands, DHPG and MPEP, on neuronal glutamate release *in vitro* and *in vivo*

167P **Nickolls SA & Strange PG** Activation of $G\alpha i_2$ by D2 (ser^{311} cys), a naturally-occurring polymorphism of the human D_{2L} receptor

168P **Gazi L, Nickolls SA & Strange PG** Human dopamine $D_{2L(long)}$ receptor coupling to $G_{\alpha i2}$ and $G_{\alpha o}$ G proteins in Sf9 insect cells

169P **Latif ML, Chevali M, Rehman S & Hill SJ** Simultaneous detection of agonist-stimulated activation of cyclic AMP response element (CRE)- and serum response element (SRE)-mediated gene transcription in HEK-293 cells

170P **Jackson AM, Hill SJ & Alexander SPH** The role of capacitative calcium entry in muscarinic receptor-mediated enhancement of A_{2B} adenosine receptor-induced cyclic AMP generation in HEK 293 cells

171P **Quirk K, Lawrence T, Harvey V, Misra A, Jones J, Sheardown M & Knight A** Comparison of [^{3}H]ZM-241385 binding to adenosine A_{2A} receptors from rat striatum and cortex

172P **Cordeaux Y, Ijzerman AP & Hill SJ** Structure-function relationships of NECA analogues at A1 adenosine receptors

173P **Abdul-Hamid MA, Cousins ID, Harriss DR & Hill SJ** [^{3}H]-inositol phosphate responses to histamine mediated by a histamine-H_1 receptor coupled to G_{11} but not G_q protein in primary human prostatic stromal cells

174P **Self TJ, Oakley SM, Flavin FM, Scott A, Ting KN & Hill SJ** Characterisation of a GFP tagged human H_1 receptor expressed in CHO-K1 cells

175P **Watt GF, Shankley NP, Hull RAD & Black JW** Transient histamine H_1 receptor-mediated agonist responses may yield erroneous pK_A estimates: application of equilibrium and kinetics models of agonist action

DEMONSTRATIONS

176P **Ryan GE, Abbot SE, Pfaller W & Ryan MP** Comparison of TNF-α and IL-1β-mediated IL-6 production in a novel human renal co-culture perfusion system

177P **Murdock M & Scholfield CN** Robust and simple software/hardware to record muscle contractions in the practical class

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

CELLULAR AND INTRACELLULAR TARGETING OF DRUGS

Tuesday 3rd July 2001

178P **Low PS, Leaman CP, Reddy JA, Green MA, Mathies C, Turk MJ, Walters DJ, Lu J, Lee RJ & Kennedy M** Folate-mediated delivery of therapeutic and imaging agents to cancer tissue *in vivo*

179P **Wadia J & Dowdy SF** Anti-cancer protein therapy: transduction of tumor suppressor proteins *in vivo*

180P **Rothbard JB** Utility of oligomers of arginine to enhance topical delivery and oral bioavailability of a variety of drugs

181P **Chavrier P** Function of Rho GTP-binding proteins in actin dynamics during phagocytosis

182P **Mostov K** Epithelial polarity and morphogenesis

183P **Lo D, Mah S, Hilbush Bm Byrne D, O'Mahony D & Brayden D** Applying TOGA™ technology to find biologically relevant genes in Peyer's Patch epithelium development

DRUG DELIVERY IN THE NEW MILLENNIUM

Tuesday 3rd July 2001

184P **Pinilla C, Lambkin I, Hamashin C, Osthues L, Higgins L, Russell S, Dee J, Schink A, Houghten R & O'Mahony D** Use of mixture-based combinatorial libraries to identify ligands that target receptors in the gastrointestinal tract

185P **Higgins LM, Donnelly GG, Lambkin I, O'Malley D, Dee J, Byrne D, Smith M, Brayden D & O'Mahony D** Screening phage display libraries in vivo for the identification of intestinal targeting ligands

186P **Cudmore S, Harvie P & Paul R** Evaluation of targeted lipid-protamine-DNA (LPD) complexes for gene delivery applications

187P **Paul RW** Experiences with gene delivery using non-viral and viral systems

188P **Lazarides E** *In vivo* phage display of peptide libraries: for the identification of novel chemical leads and therapeutic drug monitoring

189P **Glenn GM** Transcutaneous immunization: targeting Langerhans cells with adjuvants

190P **Eppstein DA** Noninvasive delivery of biopharmaceuticals through the skin by controlled infusion through MiroPors™ created in the stratum corneum

191P **Payne LG** Vaccine delivery across the skin surface using needle-free Powderject technology

192P **Allicotti G, Pinilla C, Hamashin C, Russell S, Osthues L, Moya-Castro R, Schink A, Lambkin I & O'Mahony D** Development of a flow-cytometry procedure for characterization of novel lectin mimetics *in vitro*

193P **Pinilla C, Martin R, Zhao Y & Simon R** The integration of positional scanning libraries with bioinformatics and proteomics

NOVEL THERAPEUTIC TARGETS IN INFLAMMATORY DISEASE

Wednesday 4th July 2001

194P **Sewell L, Tami J, Geary R, Mant T, Dorr A & Glover J** Phase I study of s.c. and i.v. ISIS 104838 (anti-TNFα), a second generation antisense oligonucleotide

MECHANISMS OF DRUG ADDICTION

Thursday 5th July 2001

195P **Koob GF** Drug addiction, reward dysregulation and allostasis

196P **Maldonado R** Involvement of different opioid receptors and peptides in cannabinoid dependence

197P **Everitt B** Associative mechanisms in addiction: prospects for treatment

198P **Crews FT** Genetics and age-related contributions to long-term changes in CNS structure and function following binge drinking

199P **Hagan JJ, Vorei SR, Ashby Jr. CR, Paul M, Liu X, Hayes R, Middlemiss DN & Gardner EL** The role of dopamine D_3 receptors in drug abuse