The *British Journal of Pharmacology* is published by Stockton Press, a division of Macmillan Press Ltd. It is the official publication of the British Pharmacological Society.

Scope The British Journal of Pharmacology is published twice a month. It welcomes contribution in all field of experimental pharmacology including neuroscience, biochemical, cellular and molecular pharmacology. The Board of Editors represents a wide range of expertise and ensures that well-presented work is published as promptly as possible, consistent with maintaining the overall quality of the journal

This journal is covered by Current Contents, Excerpta Medica, BIOSIS, CABS, CINAHL and Index Medicus.

Editorial Manuscripts (plus two copies) and all editorial correspondence should be sent to: The Editorial Office, British Journal of Pharmacology, St George's Hospital Medical School, Cranmer Terrace, London SW17 ORE, UK. Tel: +44 (0)181 767 6765; Fax: +44 (0)181 767 5645.

Advertisements Enquiries concerning advertisements should be addressed to: Michael Rowley, Hasler House, High Street, Great Dunmow, Essex CM6 1AP, UK. Tel: +44 (0)1371 874613; Fax: +44 (0)1371 872273.

Publisher All business correspondence, supplement enquiries and reprint requests should be addressed to British Journal of Pharmacology, Stockton Press, Houndmills, Basingstoke, Hampshire RG21 6XS, UK. Tel: +44 (0)1256 29242; Fax: +44 (0)1256 810526. Publisher: Marija Vukovojac. Production Controller: Nicci Crawley.

Subscriptions – EU/Rest of World Subscription price per annum (3 volumes, 24 issues) £620, rest of world £820 (Airmail), £685 (Surface mail) or equivalent in any other currency. Orders must be accompanied by remittance. Cheques should be made payable to Macmillan Magazines and sent to: The Subscription Department, Macmillan Press Ltd, Houndmills, Basingstoke, Hampshire RG21 6XS, UK. Where appropriate, subscribers may make payments into UK Post Office Giro Account No. 519 2455. Full details must accompany the payment. Subscribers from EU territories should add sales tax at the local rate.

Subscriptions – USA USA subscribers call toll free 1-800-221-2123 or send check/money order/credit card details to: Stockton Press, 345 Park Avenue South, 10th Floor, New York, NY 10010-1707. Tel: 212 689 9200. Fax: 212 689 9711. USA annual subscription rates: \$1230 Airmail; \$1030 Surface (Institutional/Corporate); \$225 (Individual making personal payment).

British Journal of Pharmacology (ISSN 0007-1188) is published twice a month by Macmillan Press Ltd, c/o Mercury Airfreight International Ltd, 2323 Randolph Avenue, Avenel, NJ 07001, USA. Subscription price for institutions is \$1030 per annum (surface). 2nd class postage is paid at Rahway NJ. Postmaster: send address corrections to Macmillan Press Ltd, c/o Mercury Airfreight International Ltd, 2323 Randolph Avenue, Avenel NJ 07001.

Reprints of any article in this journal are available from Stockton Press, Houndmills, Basingstoke, Hampshire RG21 6XS, UK. Tel: +44 (0)1256 29242; Fax: +44 (0)1256 810526.

Copyright © 1995 Stockton Press ISSN 0007-1188

All rights of reproduction are reserved in respect of all papers, articles, illustrations, etc., published in this journal in all countries of the world.

All material published in this journal is protected by copyright, which covers exclusive rights to reproduce and distribute the material. No material published in this journal may be reproduced or stored on microfilm or in electronic, optical or magnetic form without the written authorisation of the Publisher.

Authorisation to photocopy items for internal or personal use of specific clients, is granted by Stockton Press, for libraries and other users registered with the Copyright Clearance Center (CCC) Transaction Reporting Service, provided that the base fee of \$12.00 per copy is paid directly to CCC, 21 Congress St., Salem, MA 01970, USA. 0007-1188/95 \$12.00+\$0.00.

Apart from any fair dealing for the purposes of research or private study, or criticism or review, as permitted under the Copyright, Designs and Patent Act 1988, this publication may be reproduced, stored or transmitted, in any form or by any means, only with the prior permission in writing of the publishers, or in the case of reprographic reproduction, in accordance with the terms of licences issued by the Copyright Licensing Agency.



E.M.M.S.

12 Woolmer Way Bordon, Hants GU35 9QF

Tel: 014204 79791 Fax: 488208
- ISDN Video 01420 487796
emms@infodisp.demon.co.uk

■ Data Collection, Analysis and Handling for the Life Scientist

E.M.M.S. offer complete systems for measuring, monitoring, and recording of physiological parameters. We have experience in cardio-vascular and pulmonary, both in-vitro and in-vivo models. We can supply complete systems, from transducers to post processing software. Our services include consultation, installation, training and inservice support. Maintenance and service agreements that include certified calibration are available. Systems may be purchased or leased.

Pulmonary

Unrestrained Dyspnea Monitoring Non-Invasive Airway Mechanics Pulmonary Mechanics Flow Derived Parameters

■ Cardiovascular

Multiple Channel Hemodynamics

In-Vitro Applications

Tissue Bath Preparations Konzett-Rossler Technique

British Journal of Pharmacology

Proceedings Supplement

Proceedings of the British Pharmacological Society Meeting

University of Strathclyde

6th-8th September 1995

INDEX TO PROCEEDINGS SUPPLEMENT University of Strathclyde, 6–8 September, 1995

Author Index

Aaronson PI see Halliday FC, 401P Ahir A see Halliday FC, 401P Ahmad S, Fowerl LJ, Leach MJ & Whitton PS Lamotrigine fails to alter veratridine or K⁺-evoked dopamine and 5-HT release in the rat ventral hippocampus and striatum in vivo, 390P Ainsworth K see Trail B, 449P Akhondzadeh S & Stone TW Muscimolinduced long-term depression and its reversal in hippocampal slices, 392P Alison M see Shah D, 275P Anderson A see Gemmell DK, 443P Anderson K see Andrews R, 343P Anderson MA, Hill DR, Nicholson CD & Shahid M Comparison of the effects of ORG 20241 and rolipram on cyclic nucleotide phosphodiesterase 4A expression in a human monocyte (U937) cell line, 362P Andrews R, Anderson K, Yin L, MacDonald C & Grant MH Glutathione-S-transferase activities and the toxicity of 1-chloro-2,4-dinitrobenzene and ethacrynic acid in immortalised rat hepatocytes, 343P Andriantsitohaina R, Chasserot S, Schott C, Muller C & Stoclet JC Differential CD₁₄ staining and induction of hyporeactivity by LPS in rat arteries, 457P Änggård EE see Laight DW, 404P Armstrong JM see McBean DE, 441P Armstrong R see Milne S, 321P Armstrong RA & Rafi A Investigation of the role of nitric oxide and cyclic GMP in superoxide anion generation by human neutrophils, 322P Armstrong RA see Talpain E, 320P Asghar AUR see Kelly DC, 447P Atkinson J see Boutinet S, 276P Atkinson J see Giummelly P, 405P Atkinson J see Lartaud-Idjouadiene I, 277P

Atkinson J see Niederhoffer N, 419P

Auld R see Woode E, 342P

Babaei H, Evans T, Irving G & McCurrie JR Calcium-independence of the relaxant effect of oestrogens on isolated rat aorta, 402P Baines IA, Bowen WP, Dayanandan R. Hudson AL, Nutt DJ, Medhurst AD & Hunter AJ BU 224 and 2-BFI have high affinity for two different imidazoline sites (I-sites) in the rabbit, 374P Baines IA see Bowen WP, 398P Baines IA see Medhurst AD, 373P Bakker AM, Davidson J & Rotondo D Arachidonyl ethanolimide (Anandamide) modulation of cytokinestimulated thymic lymphocyte proliferation, 353P Balfour DJK, Ridley DL & Moran RJ The influence of 5-HT on dopamine secretion from slices prepared from rat nucleus accumbens, 384P Balfour DJK see Birrell CE, 337P Ball HA see Graves CL, 416P Balmforth AJ see McDonald RL, 299P Balmforth AJ see Vaughan PFT, 430P Banerji T see Pearce RKB, 304P Bastian S see Bigaud M, 427P Batev AJ see Coker SJ, 284P Baxter GS see Duxon MS, 331P Baxter GS see Kennett GA, 330P Baxter GS see Trail B, 449P Beckett SR see Duxon MS, 331P Belelli D, Hope AG, Callachan H, Hill-Venning C, Peters JA & Lambert JJ A mutation in the putative M2 domain of a Drosophila GABA receptor subunit differentially affects antagonist potency, 442P Belham CM, Scott PH, Wadsworth RM & Plevin R A role for p70^{96K} in thrombin-stimulated DNA synthesis in pulmonary artery fibroblasts, 431P Belham CM see Scott PH, 364P Bennett GW see Thongsaard W, 383P

Bigaud M, Bastian S, Jauch MF,

Marchal P & D'Orchymont H Endo-

thelin-converting enzyme inhibition in vitro and in vivo by N-phosphonomethyl-Leu-Trp, 427P Birrell CE & Balfour DJK Studies on the mechanisms underlying sensitisation of the mesoaccumbens dopamine response to nicotine in the rat, 337P Bishop SM see Shelton CJ, 309P Blackburn TP see Duxon MS, 331P Blackburn TP see Kennett GA, 330P Blackburn TP see Trail B, 449P Blackett S, Chaytor AT & Boachie-Ansah G Selective antagonism by chlorpromazine and related phenothiazines of the vasorelaxant actions of levcromakalim, 378P Blagbrough IS see Fatehi M, 367P Blake SM see Gozzard N, 293P Boachie-Ansah G see Blackett S, 378P Boersma J Problem-based learning: putting the students in control, 464P Bönisch H see Bryan-Lluka LJ, 291P Boutinet S, Giummelly P, Capdeville-Atkinson C & Atkinson J Role of calcium in the alterations of damping capacity in a rat model of elastocalcinosis, 276P Bowen WP, Medhurst AD, Baines IA & Hunter AJ Agmatine, a putative endogenous ligand for imidazoline sites (I-sites) has very low affinity for I-sites in rabbit, dog and rat tissues, Bowen WP see Baines IA, 374P Bowen WP see Medhurst AD, 373P Bowery NG see Getova D, 393P Bowery NG see Libri V, 332P Bowery NG see Oume M, 391P Bowery NG see Towers SA, 315P Bowmer CJ see Rajaian H, 347P Bowmer CJ see Wang Y, 346P Braun E see Graves CL, 416P Brennand DM see Khan J, 328P Brett RR see Kapur A, 352P Brett RR see Pratt JA, 397P Bright F see Kennett GA, 330P

- Briscoe MG see Grant TL, 422P
 Broadley KJ see Shelton CJ, 309P
 Brown C & Shaw MA Involvement of a
 5-HT₁ receptor in the response to 5HT in the first branch pulmonary
 artery of the rat, 290P
- Brown CJ & Crankshaw DJ Effects of AH2384B on prostanoid-induced relaxation of human myometrium in vitro. 359P
- Bruckdorfer KR see Gates SC, 432P Bruckdorfer KR see Khan J, 328P Bryan-Lluka LJ, Oldham KT, Guice KS & Bonisch H Rat lung microvascular endothelial cells in culture express a
- 5-HT transporter but not a noradrenaline transporter, 291P Bryant CE, Paul A, Croxtall JD & Flower RJ Lipocortin 1 suppression
- Flower RJ Lipocortin 1 suppression of the lipopolysaccharide induction of inducible nitric oxide synthase: comparison with the response to interferon γ, 327P
- Bryant CE, Smith D, Paul A & Flower RJ Effect of dexamethasone and brefeldin A on activity and subcellular localization of inducible nitric oxide synthase, 455P
- Bufton HR, Lodge D & Kilpatrick IC
 An initial identification of the
 voltage-sensitive calcium channels
 that contribute to the dorsal rootevoked, polysynaptic spinal reflex of
 the neonatal rat, 437P
- Bunton D, Fisher A, Hargreaves C,
 MacDonald Alastair, MacDonald
 Ann, McGregor E & Shaw AM
 Effects of propranolol and L-NAME
 on α-adrenoceptor-mediated
 relaxation in bovine pulmonary
 artery in vitro, 411P
- Bunton D, Fisher A, MacDonald A & Shaw AM Responses to agonists in bovine pulmonary conventional and supernumerary arteries: effect of endogenous nitric oxide, 319P Bunton DC see Nally JE, 426P Burdett K The challenges of implementing the new Manchester
- Medical Programme, 465P Butcher SP see Finlayson K, 307P Butcher SP see Ito H, 306P Butcher SP see Maemoto T, 308P Byford A see Gemmell DK, 443P
- Callachan H see Belelli D, 442P Callaghan LJ see Gray AM, 395P Callingham BA see Fusi F, 414P Campbell AC see Gemmell DK, 443P Capdeville-Atkinson C see Boutinet S, 276P
- Capdeville-Atkinson C see Lartaud-Idjouadiene I, 277P Carotti A see McNaught KStP, 305P

- Carrier MJ see Laight DW, 404P Chambers JP see Faber ESL, 311P Chasserot S see Andriantsitohaina R, 457P
- Chaytor AT see Blackett S, 378P
 Chilvers ER see Scott PH, 364P
 Chokkukannan K, Wainwright CL &
 Zeitlin IJ A comparison of infarct
 size and ET-1 release in hearts
 isolated from normocholesterolaemic
 and genetically hyperlipidaemic
 rabbits, 434P
- Chokkukannan K, Wainwright CL & Zeitlin IJ The effects of L-arginine supplementation on myocardial infarct size and ET-1 release in hearts isolated from genetically hyperlipidaemic rabbits, 433P
- Cholerton S see Skett P, 459P Choudhury Q see Newman SP, 281P Chu J see Dryden WF, 366P
- Clanachan AS, Lopaschuk GD, Gandhi M & Finegan BA Transient antecedent ischaemia reverses the beneficial mechanical and metabolic effects of adenosine in isolated working rat hearts, 429P
- Clark EA & Hill SJ Pertussis toxin sensitivity of histamine H₃ agoniststimulated [³⁵S]GTPy binding in rat cerebral cortical membranes, 400P
- Clarke DE see Lachnit WG, 300P Clarke DE see Lachnit WG, 408P Clayton RA, Nally JE, MacLean MR,
- Clayton RA, Nally JE, MacLean MR,
 Thomson NC & McGrath JC
 Reversal of methacholine-induced
 contraction in isolated bronchial
 rings from chronically hypoxic and
 control rats, 418P
- Clayton RA, Nally JE, Thomson NC & McGrath JC Atrial natriuretic peptide reverses but does not protect against challenge with endothelin-1 in isolated human bronchi, 425P
- Coker SJ & Batey AJ Effective refractory period and contractility of isolated cardiac muscle in the presence of 5-HT₂ and thromboxane antagonists alone and in combination, 284P
- Coleman RA see Brown CJ, 359P Coleman RA see Senchyna M, 280P Coleman RA see Sheldrick RLG, 399P Collie I see Philpott A, 379P
- Collie IT, Holt JD, Stam N, Hill DR & Shahid M Binding profile of ORG 5222 at cloned human dopamine D₂, D₃ and D₄ receptors, 380P
- Conforti L see Fusi F, 414P
 Connick JH see Gray AM, 382P
 Connick JH see Martorana MG, 386P
 Connick JH see Roberts J, 381P
 Connolly JG see Covernton PJO, 450P
 Connor MA, Keir MJ & Henderson G
 - Desensitization of δ-opioid mobiliza-

- tion of intracellular calcium in SH-SY5Y cells, 314P
- Constanti A see Libri V, 332P
 Corbett AD, Harvey KT, Hamilton L &
 Murray GI The effects of selective
 tachykinin receptor agonists on
 human colonic circular muscle in
 health and inflammatory bowel
 disease, 371P
- Cortijo J see Morcillo EJ, 417P Covernton PJO & Connolly JG Ethanol can both inhibit and potentiate the neuronal nicotinic acetylcholine receptor subtype α3β4, 450P
- Cox B see Growcott JW, 415P Crankshaw D The use of problem-based learning in a pharmacology course for science students, 463P
- Crankshaw DJ see Brown CJ, 359P Crankshaw DJ see Senchyna M, 280P Croxtall JD see Bryant CE, 327P Croxtall JD see Newman SP, 281P Cuomo V see Guistino A, 385P Cvetkovski R see Goldie RG, 296P
- da Silva HM see Towers SA, 315P
 Daniels S see Shelton CJ, 309P
 D'Aprile AC see Goldie RG, 296P
 Daum P see Pinnock RD, 282P
 Davidson J, Smith F & Rotondo D
 Prostaglandin E2 and fatty acid suppression of cytokine-stimulated
 thymic lymphocyte proliferation: the
 role of cyclic AMP, 354P
- Davidson J, Templeton G & Rotondo D Modulation of interleukin-1β production in human blood by prostaglandin E2 and arachidonic acid, 357P
- Davidson J see Bakker AM, 353P
 Davidson J see Ménager N, 363P
 Dayanandan R see Baines IA, 374P
 De Kimpe SJ see Kengatharan M, 326P
 Dempster J & Prior C The use of
 computer simulations to accompany
 the laboratory teaching of pharmacological principles, 460P
- Dessy C, Salomone S, Feron O, Morel N & Godfraind T Inhibition by lacidipine of the responsiveness of basilar artery enhanced by high salt diet in stroke-prone spontaneously hypertensive rats, 294P
- Deveney AM & Waddington JL
 Behavioural comparison of novel,
 full efficacy dopamine 'D₁-like'
 agonists: dihydrexidine and A 68930
 334P
- Dickson M see Martorana MG, 386P Dijcks F see Roberts J, 381P Dillon JF see Hadoke PWF, 412P Dillon JF see Phin P, 413P Docherty C, McGrath JC & MacLean MR Effect of developmental age on

noradrenaline- and acetylcholineevoked responses in rabbit isolated pulmonary resistance arteries, 410P Dominiczak AF see McPherson KL, 317P

D'Orchymont H see Bigaud M, 427P Dryden WF & Chu J Selective delivery of drugs to the nerve terminal cytoplasm using liposomes, 366P

Duvivier C see Niederhoffer N, 419P
Duwiejua M, Obiri OD, Zeitlin IJ &
Waterman PG Anti-inflammatory
activity in extracts from the seeds of
Picralima nitida (fam. Apocynaceae), 360P

Duxon MS, Beckett SR, Baxter GS, Blackburn TP & Fone KCF Intraamygdala injection of the 5-HT_{2B} receptor agonist BW 723C86 produces anxiolysis on the elevated plus-maze in the rat, 331P

Ellershaw DC & Gurney AM Effects of hydralazine on α-escin skinned rabbit aorta, 403P

Engel CE Problem-based learning for capability, 462P

Eshragi HR, Zeitlin IJ, Ternent H, Logue D & Fitzpatrick J Kinins in bovine mastitis, 369P

Evans AM, Osipenko ON & Gurney AM I_{KRP}: Characterization and pharmacological separation of a novel potassium current in rabbit pulmonary artery myocytes, 292P

Evans AM see Halliday FC, 401P Evans RH Demonstration of low threshold activation of analgesicsensitive synaptic reflexes in the rat spinal cord in vitro, 312P

Evans RH Involvement of NMDA receptors in the monosynaptic segmental reflex of the rat spinal cord *in vitro*, 313P

Evans RH see Faber ESL, 311P Evans T see Babaei H, 402P

Faber ESL, Evans RH & Chambers JP Modulation of the polysynaptic reflex of the rat hemisected spinal cord by xylazine and detomidine in vitro, 311P

Fatani AJY, Furman BL & Zeitlin IJ The involvement of kinins in the cardio-vascular effects of *Leiurus* quinquestriatus scorpion venom, 423P

Fatehi M, Rowan EG, Harvey AL, Moya E & Blagbrough IS The effects of polyamine FTX-3.3 and polyamine amide sFTX-3.3 on acetylcholine release, 367P

Fatehi M, Rowan EG & Harvey AL

Temperature-dependent effects of adenosine on presynaptic calcium currents and acetylcholine release from mouse motor nerve terminals, 365P

Feron O see Dessy C, 294P
Finegan BA see Clanachan AS, 429P
Finlayson K, Sharkey J, Olverman HJ &
Butcher SP Measurement of
adenosine receptor antagonists in rat
brain following intraperitoneal
administration using a modified
radioreceptor assay, 307P
Finlayson K see Ito H, 306P
Finlayson K see Maemoto T, 308P

Fisher A see Bunton D, 319P
Fisher A see Bunton D, 411P
Fitzpatrick J see Eshraghi HR, 369P
Flower RJ see Bryant CE, 327P
Flower RJ see Bryant CE, 455P
Flower RJ see Harris HJ, 316P
Flower RJ see Newman SP, 281P
Fone KCF see Duxon MS, 331P
Ford APDW see Lachnit WG, 300P
Ford APDW see Lachnit WG, 408P
Forster C Endothelial modulation of angiotensin response in canine blood vessels, 295P

Fowler LJ see Ahmad S, 390P
Fowler LJ see Qume M, 391P
Friot R see Giummelly P, 405P
Froestl W see Getova D, 393P
Furman BL see Fatani AJY, 423P
Fusi F, Conforti L, Scarlett JA &
Callingham BA The effect of allylamine on the tension responses of cervine digital arteries in vitro to noradrenaline, 414P

Gaffen Z see Handy RLC, 446P
Galán G see Morcillo EJ, 417P
Gale JD see Sheldrick RLG, 399P
Gandhi M see Clanachan AS, 429P
Ganpinyo P see Wongwitdecha N, 448P
Garland CJ see Yard NJ, 297P
Garritsen A see Roberts J, 381P
Gates SC, Gleeson AM, Bruckdorfer KR
& Jacobs M Release of superoxide
anions in coronary resistance vessels
of hypercholesterolaemic rabbits,
432P

Gemmell DK, Byford A, Anderson A, Marshall RJ, Hill DR, Campbell AC, Hamilton N, Hill-Venning C, Lambert JJ & Peters JA The anaesthetic and GABA modulatory actions of Org 21465, a novel water soluble steroidal intravenous anaesthetic agent, 443P

Gent JP see Maudsley S, 444P Getova D, Froestl W & Bowery NG Influence of GABA_B receptor antagonists on pentylenetetrazolinduced kindling in mice, 393P Gibson IC & Logan SD Nicotinic responses recorded from sympathetic preganglionic neurones in the neonatal rat spinal cord slice *in vitro*, 438P

Giummelly P, Friot R & Atkinson J
Desmosine and isodesmosine
contents of the aortic wall in a rat
model of elastocalcinosis, 405P

Giummelly P see Boutinet S, 276P
Giustino A, Cuomo V & Marsden CA
Maternal cocaine administration in
the rat: altered dopamine function in
the offspring, 385P

Gleeson AM see Gates SC, 432P Godfraind T see Dessy C, 294P Goldie RG, D'Aprile AC, Cvetovski R, Rigby PJ & Henry PJ Influences of differences in endothelin (ET), and

differences in endothelin (ET)_A and ET_B receptor subtype proportions on ET-1-induced contraction in porcine isolated bronchus and trachea, 296P

Gooday R see Westfall T, 361P Gow IF & Sykes AJ Magnesium prolongs the duration of thrombininduced shape changes in bovine platelets, 407P

Gozzard N, Herd CM, Blake SM, Holbrook M, Hughes B & Page CP CDP840 inhibits antigen-induced airway responses in the neonatally immunised rabbit, 293P

Graham A, McLees A, Malarkey K & Plevin R Termination of mitogenactivated protein kinase activity on stimulation with uridine triphosphate in Eahy926 endothelial cells, 278P

Graham DI see Ogilvy HV, 388P Grant MH see Andrews R, 343P Grant MH see Rodgers EH, 370P

Grant TL, Mayers RM, Briscoe MG, Howe R, Rao BS & Holloway BR ZD9989 is a potent, selective α₃adrenoceptor agonist *in vivo*, 422P

Grant TL, Mayers RM, Quayle SP, Howe R, Rao BS, Growcott JW & Holloway BR ZD9989 is a potent, selective α₃-adrenoceptor agonist *in* vitro, 421P

Graves CL, Szwarc RS, Braun E & Ball HA Airway and cardiovascular effects of Substance P in the anaesthetised mini-pig, 416P

Gray AM, Callaghan LJ, Spencer PSJ & Sewell RDE Dothiepin prevents the acquisition of place aversion to naloxone precipitated opiate withdrawal, 395P

Gray AM & Connick JH Scopolamine does not influence the ability of clozapine to increase dopamine efflux in the striatum of Wistar rats, 382P

Gray GA see Mickley EJ, 424P Grayson KL & Gupta P Preliminary characterisation of an endothelial 5-HT receptor which mediates relaxation in a preparation of dog isolated vena cava, 409P

Green MA, Markham A & Halliwell RF An electrophysiological study of the selectivity of antagonist action of ciprofloxacin and biphenylacetic acid on the rat isolated vagus nerve, 336P

Greenlees C, Wainwright CL & Wadsworth RM L-arginine administration does not improve endothelial function following balloon angioplasty in the Froxfield Heritable Hyperlipidaemic rabbit, 274P

Growcott JW, Cox B, Torr V, Hatton R & Hollingsworth M Differences in contractile and relaxant responses of aortae from streptozotocin-induced diabetic and obese Zucker rats in vitro, 415P

Growcott JW see Grant TL, 421P Guice KS see Bryan-Lluka LJ, 291P Gupta P see Grayson KL, 409P Gurney AM see Ellershaw DC, 403P Gurney AM see Evans AM, 292P Gurney AM see Halliday FC, 401P Gurney AM see Ma Y-L, 453P Gurney AM see Osipenko ON, 406P Gy Papp J see Parratt JR, 286P Gy Papp J see Vegh A, 288P

Hadoke PWF, Scotland JJ, Speers GS, Dillon JF, Walker SW, Williams BC. John TG & Hayes PC Similarity of response to vasoconstrictors in porcine hepatic and human hepatic and mesenteric arteries in vitro, 412P Hadoke PWF see Phin P, 413P Halliday FC, Aaronson PI, Evans AM, Ahir A & Gurney AM Effects of K channel blocking drugs on tension and membrane currents in rabbit aortic smooth muscle, 401P Halliwell RF see Green MA, 336P Hamilton CA see McPherson KL, 317P Hamilton L see Corbett AD, 371P Hamilton N see Gemmell DK, 443P Handy LC, Wallace P, Gaffen Z & Moore PK Effect of 1-(2-trifluoromethylphenyl)imidazole (TRIM) on neuronal, inducible and endothelial isoforms of nitric oxide synthase, 446P

Hargreaves C see Bunton D, 411P Harris H & Flower RJ Immunological assessment of glycosylation sites in human corticosteroid binding globulin (CBG), 316P Harvey AL see Fatchi M, 365P Harvey AL see Fatehi M, 367P Harvey KT see Corbett AD, 371P Hasham S see Rose S, 341P Hatton R see Growcott JW, 415P

Hayes PC see Hadoke PWF, 412P Hayes PC see Phin P, 413P Haystead TAJ see Nixon GF, 279P Henderson G see Connor MA, 314P Henderson G see Henshall DC, 387P Henderson G see Luty J, 355P Henry PJ see Goldie RG, 296P Henshall DC, Watts AE & Henderson G Inhibition of transmitter release by inhibitory G protein-coupled receptor agonists in the hippocampal CA1 region is reduced by TEA, 387P Hepworth M see Luty J, 355P Herd CM see Gozzard N, 293P Hicks R see Babaei H, 402P Higgins MJ see Roberts LA, 348P

Hill DR see Anderson MA, 362P Hill DR see Collie IT, 380P

Hill DR see Gemmell DK, 443P

Hill DR see Philpott A, 379P Hill DR see Westfall T, 361P

Hill SJ see Clark EA, 400P Hill-Venning C see Belelli D, 442P

Hill-Venning C see Gemmell DK, 443P Hindmarsh JG see Rose S, 341P Holbrook M see Gozzard N, 293P Hollingsworth M see Growcott JW, 415P

Holloway BR see Grant TL, 421P Holloway BR see Grant TL, 422P Holt JD see Collie IT, 380P Hope AG see Belelli D, 442P Hope PJ, Macmillan S, Patmore L & Sheridan RD Actions of chlormethiazole on voltage-gated sodium currents in mouse neuroblastoma NIE-115 cells, 440P

Horsburgh K, McCulloch J & Nicoll JAR Apolipoprotein E immunoreactivity is altered following transient cerebral ischaemia, 349P

Horsburgh K & McCulloch J Selective alterations in amyloid precursor protein following transient cerebral ischaemia, 350P

Howe R see Grant TL, 421P Howe R see Grant TL, 422P Hudson AL see Baines IA, 374P Hudson AL see Lione LA, 338P Hudson AL see Medhurst AD, 373P Hudson AL see Sithers AJ, 439P Hughes B see Gozzard N, 293P Humphreys RA, Kane KA & Parratt JR The effect of lodoxamide, a cardiac mast cell stabiliser, on myocardial

ischaemic preconditioning in the rat, 287P Hunter AJ see Baines IA, 374P

Hunter AJ see Bowen WP, 398P Hunter AJ see Medhurst AD, 373P

Irving G see Babaei H, 402P Ito H, Maemoto T, Finlayson K, Olverman HJ & Butcher SP Effects

of adenosine receptor antagonists on CCPA-stimulated guanosine-5'-O-(3-S]-thio)triphosphate binding to rat cerebral cortical membranes, 306P

Jacobs M see Gates SC, 432P Jacobs M see Khan J, 328P Jamieson EA, Sirinathsinghji DJS & Morris BJ Regulation of microtubule-associated proteins in cultured basal forebrain neurons, 452P Jauch MF see Bigaud M, 427P Jenner P see McNaught KStP, 305P Jenner P see Pearce RKB, 304P Jenner P see Rose S, 341P John TG see Hadoke PWF, 412P Jordan RE, McKnight AT & Woodruff GN Investigation of the coupling of the human NK₃ receptor expressed in the CHO cell to the cellular acidification response by the use of the Cytosensor Microphysiometer, 445P

Kane KA see Humphreys RA, 287P Kane KA see Karamsetty VSNMR, 301P

Kane KA see Qi AD, 435P Kapur A & Brett RR Lack of effect of yohimbine on expression of c-fos mRNA in rats, 352P

Karamsetty VSNMR, Wadsworth RM & Kane KA Role of potassium channels in the response to hypoxia in rat intrapulmonary artery rings, 301P

Kaski JC see Shah D, 275P Kaszala K see Vegh A, 288P Keenan AK see Love GP, 428P Keir MJ see Connor MA, 314P Kelly DC, Asghar AUR, Marr CG, McQueen DS & Perkins MN

Excitation of knee joint mechanociceptors by a bradykinin B₁ receptor agonist in interleukin-1β-treated rat knee joints: studies in vitro, 447P

Kelly E see Luty J, 355P Kelly EP see Mundell SJ, 368P Kelly PAT see Malcolm GP, 325P Kendall DA see Pinthong D, 310P Kengatharan M, De Kimpe SJ,

Thiemermann C & Vane JR Induction of nitric oxide synthase is associated with circulatory and respiratory failure elicited by staphylococcal peptidoglycan and lipoteichoic acid in the anaesthetised rat, 326P

Kennedy C see Westfall TD, 375P Kennedy S, Work L, Wainwright CL & Wadsworth RM Role of NO and free radicals as mediators of leukocyteinduced contractions of rabbit aortic rings, 456P

Kennett GA, Bright F, Trail B,

Blackburn TP & Baxter GS Effects of the 5-HT_{2B} receptor agonist, BW 723C86, in rat social interaction, elevated x-maze and Geller-Seifter models of anxiety, 330P

Kennett GA see Trail B, 449P
Khan J, Brennand DM, Bruckdorfer KR
& Jacobs M Nitro-tyrosine-like
immunoreactivity in human plasma
of cigarette smokers and nonsmokers, 328P

Khan S & Skett P The effect of low endotoxin medium on the maintenance of steroid metabolism in cultured rat hepatocytes, 344P
Kilpatrick IC see Bufton HR, 437P
Kitteringham N see Skett P, 459P
Kromer BM & Tippins JR The effect of 8-epiprostaglandin F_{2α}, an F₂ isoprostane, on porcine and ovine coronary arteries in vitro, 285P
Kwan YW see Qi AD, 435P

Lachnit WG, Clarke DE & Ford APDW
 Pharmacological studies with A-61603 and RS 17053 expose a putative α_{1A} adrenoceptor, 300P
 Lachnit WG, Ford APDW & Clarke DE

Lachnit WG, Ford APDW & Clarke DE SDZ NVI 085, an α_{1A} adrenoceptor agonist with 5-HT₂ receptor antagonist properties, 408P

Laight DW, Carrier MJ & Änggård EE Oxidant stress and tolerance to glyceryl trinitrate in the isolated rat aorta, 404P

Laitinen K see MacDonald E, 335P
Lambert JJ see Belelli D, 442P
Lambert JJ see Gemmell DK, 443P
Lartaud-Idjouadiene I, CapdevilleAtkinson C & Atkinson J Narrowing
of the cerebrovascular security
margin in a rat model of elastocalcinosis, 277P

Lartaud-Idjouadiene I see Niederhoffer N, 419P

Laurie DJ see Pratt JA, 397P Leach MJ see Ahmad S, 390P Li CG see Rand MJ, 318P

Libri V, Constanti A & Bowery NG GABA_B receptor down-regulation facilitates muscarinic or metabotropic agonist-dependent burst firing in rat olfactory cortical neurones, in vitro, 332P

Lione LA, Nutt DJ & Hudson AL
Characterisation and autoradiographical localization of imidazoline2 (I₂) sites labelled by [³H]2-(-2benzofuranyl)-2-imidazoline in rat
brain, 338P

Little HJ see Molleman A, 394P Lock RE see Wallace HM, 283P Lodge D see Bufton HR, 437P Logan SD see Gibson IC, 438P Logan SD see Nixon GF, 279P
Logue D see Eshraghi HR, 369P
Lopaschuk GD see Clanachan AS, 429P
Love GP, Miller K & Keenan AK
Reduced endothelin-1 secretion by
pulmonary vascular endothelial cells
exposed to hypoxanthine-xanthine
oxidase, 428P

Luty J, Hepworth M, Kelly E & Henderson G IP-prostanoid receptor-mediated inhibition of calcium channel currents in N^G 108-15 neuroblastoma cells is mediated through G_S activation, 355P

Ma Y-L & Gurney AM Effects of paeonol on the action potential and ionic currents of guinea-pig ventricular myocytes, 453P

McBean DE, Winters V, Wilson AD,
Oswald CB & Armstrong JM Loss of
the neuroprotective efficacy of the
ion channel modulator lifarizine (RS87476) following hypotension in a
focal model of cerebral ischaemia,
441P

McCafferty DM, Sharkey KA & Wallace JL The effects of capsaicin and 6-hydroxydopamine on TNBS-induced colitis in rats, 372P

McCulloch J see Horsburgh K, 349P

McCurloch J see Horsburgh K, 350P

McCurrie JR see Babaei H, 402P

McCurrie JR see Yeung CK, 377P

MacDonald A see Bunton D, 319P

MacDonald A see Bunton D, 411P

MacDonald C see Andrews R, 343P

MacDonald E & Laitinen K Brain levels of MHPG-SO₄ are not reliable indicators of central noradrenaline turnover in rats treated with the α_2 -antagonist atipamezole, 335P

McDonald RL, Vaughan PFT,
Balmforth AJ & Peers C Regulation
by angiotensin II of [Ca²⁺]_i in human
neuroblastoma (SH-SY5Y) cells
transfected with the rat AT_{1A}
receptor, 299P

McDonald RL see Vaughan PFT, 430P McGrath JC see Clayton RA, 418P McGrath JC see Clayton RA, 425P McGrath JC see Docherty CC, 410P McGrath JC see Nagadeh MM, 454P McGregor E see Bunton D, 411P McIntyre M see McPherson KL, 317P McKnight AT see Jordan RE, 445P MacLean MR see Clayton RA, 418P MacLean MR see Docherty CC, 410P McLees A see Graham A, 278P McLellan G see Skett P, 459P Macmillan S see Hope PJ, 440P McNaught KStP, Jenner P, Testa B, Carotti A & Marsden CD Chronic supranigral infusion of isoquinoline derivatives in rats does not cause nigrostriatal toxicity, 305P

McPherson KL, Hamilton CA,
Dominiczak AF, McIntyre M & Reid
JL Effects of oxidised LDL on basal
and stimulated nitric oxide release in
rat aorta, 317P

McQueen DS see Kelly DC, 447P
McQueen DS see Smith PJW, 298P
Maemoto T, Finlayson K, Olverman HJ
& Butcher SP Pharmacological
characterisation of adenosine A₁ receptors on human brain membranes
using a [³H]DPCPX binding assay,
308P

Maemoto T see Ito H, 306P
Malarkey K see Graham A, 278P
Malcangio M see Towers SA, 315P
Malcolm GP, Kelly PAT, Ritchie IM &
Whittle IR The effects of N^G-nitro-Larginine methyl ester and 3-morpholinosydnonimine upon local cerebral blood flow in an implantation glioma model in the rat, 325P

Ménager N, Davidson J & Rotondo D

The effect of lipopolysaccharide on
the intracellular distribution of [³H]inositol in human monocytic cells,
363P

Marchal P see Bigaud M, 427P
Markham A An overview on ProblemBased Learning, 466P
Markham A see Green MA, 336P
Markham A see Menton K, 345P
Marques C see Soares-da-Silva P, 303P
Marr CG see Kelly DC, 447P
Marsden CA see Guistino A, 385P
Marsden CA see Mongeau R, 351P
Marsden CA see Thongsaard W, 383P
Marsden CA see Wongwitdecha N, 396P

Marsden CA see Wongwitdecha N, 448P

Marsden CD see McNaught KStP, 305P
Marshall RJ see Gemmell DK, 443P
Martin D see Nally JE, 426P
Martin W & Paisley K Blockade of
nitrergic relaxation in bovine retractor penis muscle by hydroquinone but not hydroxocobalamin is
enhanced by diethyl-dithiocarbonate,
323P

Martin W see Mian KB, 324P
Martorana MG, Dickson M & Connick
JH Comparison of 'typical' and
'atypical' antipsychotics in their
ability to inhibit chlorpromazineinduced catalepsy in male Wistar
rats, 386P

Maudsley S & Gent JP Tachykinin activation of a non-selective cation conductance in ND7/23 cells, 444P Mayers RM see Grant TL, 421P Mayers RM see Grant TL, 422P Medhurst AD, Baines IA, Bowen WP, Hudson AL, Nutt DJ & Hunter AJ BU 224, 2-BFI, cirazoline and idazoxan show species differences for putative imidazoline sites (I-sites) in kidney cortex, 373P

Medhurst AD see Baines IA, 374P
Medhurst AD see Bowen WP, 398P
Menton K & Markham A The protective
action of cyclosporin A on energy
metabolism associated with rat
hepatic mitochondria, 345P

Mian KB & Martin W Role of catalase and hydrogen peroxide in the formation of nitric oxide from sodium azide and hydroxylamine, 324P

Mickley EJ, Swan PJH, Webb DJ & Gray GA Comparison of two methods of myography for detection of constrictor endothelin ET_B receptors in rat small mesenteric arteries, 424P

Miller K see Love GP, 428P
Milne S, Armstrong RA & Woodward D
Investigation of the ability of
selective EP-agonists to inhibit
superoxide anion generation in
human monocytes, 321P

Mirtsou-Fidani V see Ramage AG, 289P Molleman A & Little HJ Effects of withdrawal from chronic ethanol treatment on spontaneous firing in rat ventral tegmental area slices, 394P

Mongeau R & Marsden CA Effect of CCK-4 administration on panic-like reactions produced by stimulation of the dorsal periacqueductal grey area in the rat, 351P

Moore PK see Handy RLC, 446P Moran RJ see Balfour DJK, 384P Morcillo EJ, Cortijo J, Villagrasa V, Villar V & Galán G Effects of vanadate in human isolated bronchus, 417P

Morel N see Dessy C, 294P Morris BJ see Jamieson EA, 452P Morris BJ see Roberts LA, 348P Moya E see Fatehi M, 367P Muller C see Andriantsitohaina R, 457P

Mundell SJ & Kelly EP Regulation of adenylyl cyclase activity by chronic ethanol, 368P

Murray GI see Corbett AD, 371P

Naderali EK & Poyser NL Effect of a selective prostaglandin H synthase-2-inhibitor on prostaglandin production by the guinea-pig uterus, 356P

Nagadeb MM, Templeton A & McGrath JC Analysis of the effects on vaso-constrictor agonism of endothelium removal, L-NAME and elevation of tone in the rat isolated common carotid artery, 454P

Nally JE, Bunton DC, Martin D & Thomson NC Potentiation of endothelin-1-evoked contractions by angiotensin II or hypoxia: the role of cyclooxygenase or 5-lypoxygenase metabolites in bovine bronchi, 426P Nally JE see Clayton RA, 418P Nally JE see Clayton RA, 425P Newman SP, Croxtall JD, Choudhury Q & Flower RJ IL-1β induces arachidonic acid release and cyclooxygenase 2 expression in a concerted fashion, by a common signalling pathway involving PLC and PKC, 281P

Nicholson CD see Anderson MA, 362P
Nicholson CD see Westfall T, 361P
Nicoll JAR see Horsburgh K, 349P
Nicoll KM see Wallace HM, 283P
Niederhoffer N, Lartaud-Idjouadiene,
Duvivier C, Peslin R & Atkinson J A
simple method for the evaluation of
central aortic stiffness in awake rats,
419P

Nixon GF, Haystead TAJ, Somlyo AP & Somlyo AV Phosphorylation of caldesmon by mitogen-activated protein kinase with no effect on calcium sensitivity in smooth muscle, 279P

Nolan AM see Welsh EM, 358P Nolan AM see Welsh EM, 451P Nutt DJ see Baines IA, 374P Nutt DJ see Lione LA, 338P Nutt DJ see Medhurst AD, 373P Nutt DJ see Sithers AJ, 439P

Obiri OD see Duwiejua M, 360P Obrenovitch TP & Zilkha E Effects of L-701,324, a novel antagonist at the glycine site of the N-methyl-Daspartate receptor, on cortical spreading depression, 340P Obrenovitch TP see Urenjak J, 339P Ogilvy HV, Graham DI & Stone TW Kainate may induce hippocampal purine release via non-NMDA receptors and free radicals, 388P Oldham KT see Bryan-Lluka LJ, 291P Olverman HJ see Finlayson K, 307P Olverman HJ see Ito H, 306P Olverman HJ see Maemoto T, 308P O'Shaughnessy CT see Roberts LA, 348P

Osipenko ON & Gurney AM
Identification of the ionic currents in
human intrapulmonary artery myocytes, 406P

Osipenko ON see Evans AM, 292P
Oswald CB see McBean DE, 441P
Otley CE see Pinnock RD, 282P
Otter DJ & Chess-Williams R The effect
of diabetes on cardiac α₁-adrenoceptor subtypes in the rat, 436P

Page CP see Gozzard N, 293P Paisley K see Martin W, 323P Parratt JR, Vegh A, Semeraro C & Gy Papp J Beneficial effects of Z1046, a selective dopamine receptor agonist, during myocardial ischaemia, 286P Parratt JR see Ahmad M, 436P Parratt JR see Humphreys RA, 287P Parratt JR see Vegh A, 288P Patmore L see Hope PJ, 440P Paul A see Bryant CE, 327P Paul A see Bryant CE, 455P Peacock AJ see Scott PH, 364P Pearce RKB, Banerji T, Scheel-Krüger J & Jenner P The dopamine reuptake blocker NS 2214 increases locomotor activity but does not produce dyskinesias in MPTP-treated common marmosets, 304P Peers C see McDonald RL, 299P

Peers C see Vaughan PFT, 430P
Perkins MN see Kelly DC, 447P
Peslin R see Niederhoffer N, 419P
Peters JA see Belelli D, 442P
Peters JA see Gemmell DK, 443P
Philpott A, Collie I, Hill DR & Shahid
M ORG 5222 antagonises the
inhibitory effect of quinpirole on
adenylyl cyclase activity mediated by
the human D_{2L} receptor, 379P

Philpott A see Westfall T, 361P
Phin P, Hadoke PWF, Dillon JF, Walker
SW, Williams BC & Hayes PC
Conservation of response to vasoconstrictor compounds in rat mesenteric artery stored in physiological
salt solution (PSS) at 4°C, 413P

Pinnock RD, Daum P, Woodruff GN & Otley CE Characterization of the galanin-mediated increase in intracellular calcium ([Ca²⁺]_i) in the rat pancreatic acinar tumour cell line AR42J, 282P

Pinthong D, Wilson VG & Kendall DA Comparison of the interaction of agmatine and crude methanolic extracts from bovine lung at α₂-adrenoceptors on guinea-pig cortex slices, 310P

Pipelzadeh MH & Wood D Endogenous GABA_B receptor modulation of GABA_A receptor function in mouse ileum, 376P

Plevin R see Belham CM, 431P

Plevin R see Graham A, 278P
Plevin R see Scott PH, 364P
Poorheidari G, Stanhope KJ & Pratt JA
3,4-Diaminopyridine and apamin fail
to improve scopolamine-induced
deficits in working memory in rats,
333P

Poyser NL see Naderali EK, 356P
Pratt JA, Brett RR & Laurie DJ
Expression of α₁, α₄ and G₂ GABA_A
receptor subunit mRNAs in rat brain

after chronic low dose diazepam treatment, 397P
Pratt JA see Poorheidari G, 333P
Prior C see Dempster J, 460P
Pyne NJ see Pyne S, 329P
Pyne S & Pyne NJ Sphingolipidactivated signal transduction pathways in airway smooth muscle, 329P

Pyne S see Tolan D, 458P

Qi AD & Kwan YW Current activation and inhibition of L-type Ca²⁺ channel currents by extracellular ATP in guinea-pig single sinoatrial node cells, 435P

Quayle SP see Grant TL, 421P Qume M, Bowery NG & Fowler LJ The effect of 2-, 8- and 21-day treatment with GABA-T inhibitors on GABA_A, GABA_B and flunitrazepam binding to rat crude synaptic membranes, 391P

Rafi A see Armstrong RA, 322P
Rajaian H, Symonds HW & Bowmer CJ
A comparison of drug binding sites
on human and chicken albumins,
347P

Ramage AG & Mirtsou-Fidani V Examination of the cardiovascular effects of WAY-100802, a selective 5-HT_{1A} antagonist in anaesthetized cats,

Rand MJ & Li CG Effects of cytochrome P₄₅₀ inhibitors on nitric oxide synthase-dependent responses in rat aorta and anococcygeus muscle, 318P

Rao BS see Grant TL, 421P Rao BS see Grant TL, 422P Reid JL see McPherson KL, 317P Report of a Workshop on Problem-Based Learning as applied to Pharmacology courses, 461P Ridley DL see Balfour DJK, 384P Rigby PJ see Goldie RG, 296P Ritchie IM see Malcolm GP, 325P Roach AG see Smith RM, 302P Roach AG see Yard NJ, 297P Roberts J, Connick JH, Garritsen A & Dijcks F Effect of clozapine, acetylcholine and atropine on cAMP accumulation in M4 receptors (human) transfected CHO cells, 381P

Roberts LA, Higgins MJ,
O'Shaughnessy CT & Morris BJ
Changes in hippocampal gene expression associated with the induction of long-term potentiation, 348P
Roberts RJ see Shelton CJ, 309P
Rodgers EH & Grant MH Manipulation

Rodgers EH & Grant MH Manipulation of drug metabolising enzyme activities in MCF 7 human breast cancer cells, 370P
Roesink C see Collie IT, 380P
Rose S, Hindmarsh JG, Silva MT,
Hasham S & Jenner P Inhibition of
nitric oxide synthase reduces MPP⁺evoked hydroxyl radical formation in
the rat striatum in vivo, 341P
Rotondo D see Bakker AM, 353P
Rotondo D see Davidson J, 354P
Rotondo D see Davidson J, 357P
Rotondo D see Ménager N, 363P
Rowan EG see Fatehi M, 365P
Rowan EG see Fatehi M, 367P

Salomone S see Dessy C, 294P Scarlett JA see Fusi F, 414P Scheel-Krüger J see Pearce RKB, 304P Schott C see Andriantsitohaina R, 457P

Scotland JJ see Hadoke PWF, 412P
Scott PH, Belham CM, Chilvers ER,
Peacock AJ & Plevin R A role for
phosphatidylinositol 3-kinasedependent p70 ribosomal S6 kinase
activation in PDGF-stimulated DNA
synthesis in bovine tracheal smooth
muscle cells, 364P

Scott PH see Belham CM, 431P
Semeraro C see Parratt JR, 286P
Senchyna M & Crankshaw DJ Use of
reverse transcription-polymerase reaction to identify prostanoid receptor
mRNA in human myometrium, 280P
Serrão MP see Soares-da-Silva P, 303P
Sewell RDE see Gray AM, 395P
Shaban M, Smith RA & Stone TW
Purine effects on the proliferation of
TM4 cells in culture, 389P

Shah D, Tippins JR, Kaski JC & Alison M Influence of atherosclerosis and anatomical position on leukotriene C₄ reactivity in human epicardial coronary arteries in vitro, 275P Shahid M see Anderson MA, 362P Shahid M see Collie IT, 380P Shahid M see Philpott A, 379P Shahid M see Westfall T, 361P

Shahid M see Philpott A, 379P Shahid M see Westfall T, 361P Sharkey J see Finlayson K, 307P Sharkey KA see McCafferty D-M, 372P

Shaw AM see Brown C, 290P Shaw AM see Bunton D, 319P Shaw AM see Bunton D, 411P Sheldrick RA, Smith JR & Gale JD The effect of ondansetron and CP-99,994 on emesis induced by rolipram in conscious ferrets, 399P

Shelton CJ, Roberts RJ, Bishop SM & Daniels S The effect of barbiturates on rat glycine receptors and receptor subunits expressed in *Xenopus* oocytes, 309P

Sheridan RD see Hope PJ, 440P Silva MT see Rose S, 341P Sirinathsinghji DJS see Jamieson EA, 452P

Sithers AJ, Nutt DJ & Hudson AL Binding of the novel α₂-adrenoceptor agonist [³H]mivazerol: comparison with [³H]clonidine, 439P

Skett P, Cholerton S, Kitteringham N & McLellan G Computer-assisted courseware in drug metabolism, 459P

Skett P see Khan S, 344P
Skett P see Woode E, 342P
Smith D see Bryant CE, 455P
Smith F see Davidson J, 354P
Smith JR see Sheldrick RLG, 399P
Smith PW, McQueen DS & Webb DJ
Cold-induced potentiation of the contractile response to an α₁-adrenoceptor agonist in rat resistance arteries: the role of endothelin, 298P

Smith RA see Shaban M, 389P
 Smith RM, Roach AG, Williams KI & Woodward B Effects of cytoskeletal modifying agents on systemic hypoxic vasoconstriction and oedema formation in the rat isolated perfused lung, 302P

Sneddon P see Westfall TD, 375P
Soares-da-Silva P, Vieira-Coelho MA,
Serrão MP & Marques C CatecholO-methyltransferase activity and its
sensitivity to inhibition by tolcapone
in two renal cell lines and in rat and
pig kidney tissues, 303P

Somlyo AP see Nixon GF, 279P Somlyo AV see Nixon GF, 279P Speers GS see Hadoke PWF, 412P Spencer PSJ see Gray AM, 395P Stam N see Collie IT, 380P Stanhope KJ see Poorheidari G, 333P Stoclet JC see Andriantsitohaina R, 457P

Stone TW see Akhondzadeh S, 392P Stone TW see Ogilvy HV, 388P Stone TW see Shaban M, 389P Swan PJH see Mickley EJ, 424P Sykes AJ see Gow IF, 407P Symonds HW see Rajaian H, 347P Symonds HW see Wang Y, 346P Szwarc RS see Graves CL, 416P

Takeshima S see Ahmad M, 436P
Talpain E & Armstrong RA Investigation of the PGE (EP-) receptor subtype linked to inhibition of superoxide anion generation in human eosinophils, 320P

Templeton A see Nagadeh MM, 454P Templeton G see Davidson J, 357P Ternent H see Eshraghi HR, 369P Testa B see McNaught KStP, 305P Thiemermann C see Kengatharan M, 326P

Thomson NC see Clayton RA, 418P

Thomson NC see Clayton RA, 425P Thomson NC see Nally JE, 426P Thongsaard W, Bennett GW & Marsden CA Barakol inhibits striatal dopamine release in vitro, 383P Tippins JR see Kromer BM, 285P Tippins JR see Shah D, 275P Tolan D & Pyne S Characterisation of phosphatidic acid phosphohydrolase-2 in airway smooth muscle, 458P Torr V see Growcott JW, 415P Towers SA, Malcangion M, da Silva HM & Bowery NG Hyperalgesia in monoarthritic rats: enhancement by GABA_B receptor antagonism, 315P Trail B, Ainsworth K, Blackburn TP, Baxter GS & Kennett GA Are mCPP-induced behaviours 5-HT_{2C} or 5-HT_{2B} receptor-mediated?, 449P Trail B see Kennett GA, 330P

Urenjak J, Zilkha E & Obrenovitch TP Selective inhibition of glutamate uptake does not potentiate depolarizations evoked by application of glutamate to the rat striatum in vivo, 339P

Vaage J see Ahmad M, 436P Valen G see Ahmad M, 436P Vane JR see Kengatharan M, 326P Vaughan PFT, McDonald RL, Balmforth AJ & Peers C Effects of a phorbol ester on angiotensin IIevoked [3H]noradrenaline release and [Ca²⁺]_i in human neuroblastoma (SH-SY5Y) cells transfected with rat AT_{1A} receptors, 430P Vaughan PFT see McDonald RL, 299P Vegh A, Kaszala K, Gy Papp J & Parratt JR Delayed myocardial protection by pacing-induced pre-conditioning: a possible role for bradykinin, 288P Vegh A see Parratt JR, 286P Vieira-Coelho MA see Soares-da-Silva P, 303P Villagrasa V see Morcillo EJ, 417P Villar V see Morcillo EJ, 417P

Waddington JL see Deveney AM, 334P

Wadsworth RM see Belham CM, 431P

Wadsworth RM see Greenlees C, 274P Wadsworth RM see Karamsetty VSNMR, 301P Wadsworth RM see Kennedy S, 456P Wainwright CL see Chokkukannan K, 433P Wainwright CL see Chokkukannan K, 434P Wainwright CL see Greenlees C, 274P Wainwright CL see Kennedy S, 456P Walker SW see Hadoke PWF, 412P Walker SW see Phin P, 413P Wallace HM, Lock RE & Nicoll KM Studies on the uptake of N'-acetylspermidine by human cancer cells, 283P Wallace JL see McCafferty D-M, 372P Wallace P see Handy RLC, 446P Wang Y, Symonds HW & Bowmer CJ in vitro binding of [14C]sulphamethazine to murine hepatic microsomes, Waterman PG see Duwiejua M, 360P Watts AE see Henshall DC, 387P Webb DJ see Mickley EJ, 424P Webb DJ see Smith PJW, 298P Welsh EM & Nolan AM Characterisation of prostaglandin E₂ receptors in rat kidney, 358P Welsh EM & Nolan AM Diminished hyperalgesic response to intraplantar carrageenan in rats after two successive intraplantar injections, one week apart, 451P

Westfall T, Gooday R, Philpott A, Hill DR, Nicholson CD & Shahid M The inhibitory effects of Org 20241 on cloned human monocyte cyclic nucleotide phospho-diesterase 4A, 361P

Westfall TD, Kennedy C & Sneddon P The effect of the novel ecto-ATPase inhibitor ARL 67156 on neurotransmission in the guinea-pig isolated vas deferens and urinary bladder, 375P

Whittle IR see Malcolm GP, 325P Whitton PS see Ahmad S, 390P Williams BC see Gow IF, 407P Williams BC see Hadoke PWF, 412P Williams BC see Phin P, 413P Williams KI see Smith RM, 302P

Wilson AD see McBean DE, 441P Wilson DA & Woodward B 4-aminopyridine-induced responses in the pre-constricted rat superior mesenteric vascular bed are dependent on the constrictor agent used, 420P Wilson VG see Bryan-Lluka LJ, 291P Wilson VG see Pinthong D, 310P Winters V see McBean DE, 441P Wongwitdecha N, Ganpinyo P & Marsden CA Influence of rearing conditions on 5-HT_{2C} receptor responsiveness during stress in the rat, 448P

Wongwitdecha N & Marsden CA Isolation rearing reduces the amnesiac effect of scopolamine in the Morris water maze, 396P Wood D see Pipelzadeh MH, 376P Wood D see Yeung CK, 377P Woode E, Auld R & Skett P Effect of culture medium on adrenergic responses in rat hepatocytes, 342P

Woodruff GN see Jordan RE, 445P Woodruff GN see Pinnock RD, 282P Woodward B see Smith RM, 302P Woodward B see Wilson DA, 420P Woodward D see Milne S, 321P Work L see Kennedy S, 456P

Yard NJ, Roach AG & Garland CJ Responses of permeabilized smooth muscle cells in the rabbit mesenteric artery to endothelin, 297P Yeung CK, McCurrie JR & Wood D Antagonistic effects of glibenclamide and glipizide at α-adrenoceptors in

mouse ileum, 377P

Yin L see Andrews R, 343P

Zeitlin IJ see Ahmad M, 436P Zeitlin IJ see Chokkukannan K, 433P Zeitlin IJ see Chokkukannan K, 434P Zeitlin IJ see Duwiejua M, 360P Zeitlin IJ see Eshraghi HR, 369P Zeitlin IJ see Fatani AJY, 423P Zilkha E see Obrenovitch TP, 340P Zilkha E see Urenjak J, 339P

Keyword Index

A₁ purine receptors 389P A₂ purine receptors 389P A549 cells 281P ACh relaxation 410P Adenosine 306P, 307P, 308P, 365P, 388P, 389P, 429P Adenylyl cyclase 368P Adenylyl cyclase, inhibition of 379P Adrenoceptors 342P α-Adrenoceptors 298P α-Adrenoceptor agonism 454P α₁-Adrenoceptors 300P, 408P α₂-Adrenoceptors 310P α₂-Adrenoceptor agonists 439P α₂-Adrenoceptor ligands 439P β-Adrenoceptors 377P, 411P, 421P, β₃-Adrenoceptors 421P, 422P Agmatine 310P, 398P AH23848B 359P Airway smooth muscle 296P, 329P, 417P Airway smooth muscle, guinea-pig 458P Airways 293P, 416P Albumins, chicken 347P Albumins, human 347P Alcohol 450P Allylamine 414P Amino acids 342P Amyloid precursor proteins 350P Anaesthetics 309P Angioplasty 274P Angiotensin 295P, 299P, 430P Angiotensin receptors 295P **ANP 425P** α₂-Antagonists 335P Anti-inflammatories 360P Antibodies 316P Anticonvulsants 440P Antioxidants 404P Antipsychotics, atypical 386P Antipsychotics, typical 386P Anxiety 330P, 331P, 351P, 352P Aorta, rabbit 401P, 403P Aorta, rat 317P, 402P, 415P Apolipoprotein E 349P Arachidonyl ethanolamide 353P L-Arginine 274P

Arrhythmias 284P, 288P

Arterial elasticity 419P

Arteries 276P

Arteries 405P

Arteries, carotid 454P
Arteries, conductance 457P
Arteries, coronary 285P
Arteries, coronary, human 275P
Arteries, digital, deer 414P
Arteries, hepatic 412P
Arteries, mesenteric, rat 413P
Arteries, pulmonary 290P, 292P, 411P
Arteries, pulmonary, rat 301P
Arteries, pulmonary supernumerary 319P
Arteries, resistance 457P
Arthritis 360P
Atherosclerosis 275P
ATP 375P

Basilar artery reactivity 294P Behavioural regulation 334P 2-BFI 374P [³H]-2-BFI 338P Biphenylacetic acid 336P Bladder 375P Blood cells, human 357P Blood pressure 289P, 423P Blood vessels 300P, 408P Bradykinin 369P, 436P, 447P Brain, human 308P Brain, rat 439P Brain penetration 307P Brefeldin A 455P **Bronchodilators 418P Bronchus 425P** Bronchus, isolated, human 417P BU 224 374P **Burst firing 332P**

BW 723C86 330P, 449P

C6 glioma 325P
c-fos 352P
Calcium 276P, 277P, 282P, 299P, 345P,
402P
Calcium channels 437P
Calcium currents 355P, 367P
Calcium sensitisation 297P
cAMP 290P, 381P
Cancer cells, breast, human 370P
Cardiac mast cells 287P
Cardioprotection 429P
Cardiopulmonary bypass 436P
Carrageenan 451P

Catalase 324P Catalepsy, inhibition of 386P Cation channels, non-selective 444P Cell signalling 364P Central sympathetic tone 289P Cerebral blood flow 325P Cerebral circulation 277P Cerebral ischaemia 339P Chronic diazepam 397P Chronic hypoxia 418P Ciprofloxacin 336P Cirrhosis 412P Cloned human PDE IV 361P Clonidine-displacing substances 310P Clozapine 381P, 382P, 386P Cocaine 385P Colitis 372P Colon, human 371P Computer simulations 460P Computer-assisted courseware 459P Contraction 279P, 296P Cooling 298P Coronary blood flow 432P Cortex, cerebral 398P Cortex, kidney 398P Corticosteroid binding globulin 316P Covalent binding 346P cPLA₂ 281P Cyclo-oxygenase 426P Cyclosporin A 345P Cytochrome P450 344P Cytokines 353P Cytokine production 357P Cytokine proliferation 354P Cytoskeleton 302P Cytotoxicity 343P

D_{2L} receptors, human 379P
Delayed cardioprotection 288P
Desensitisation 314P
Detomidine 311P
Dexamethasone 327P, 455P
Dihydrexidine 334P
DNA synthesis 431P
L-DOPA 304P
Dopamine 384P, 385P, 394P
Dopamine agonists 286P, 383P
Dopamine receptors 380P
Dopamine 'D₁-like' receptors 334P
Dopamine release 383P
Dopaminergic neurotransmission 382P

Drosophila GABA receptor subunits
442P
Drug binding sites 347P
Drug delivery 366P
Drug metabolism 370P
459P
Dyskinesia 304P

EDNO 318P Elastin 405P Elastocalcinosis, rat model of, 276P, 277P, 405P Electrical field stimulation 376P Elevated endothelin-1 427P Elevated plus maze 331P Emesis 399P Endothelial cells 278P, 428P **Endothelial function 274P** Endothelin 297P, 298P Endothelin receptors 296P, 424P Endothelin-1 425P, 426P, 428P Endothelin-1, elevated 427P Endothelin-converting enzyme inhibition 427P Endothelium 295P, 454P **Endotoxins 344P Endotoxin shock 457P** Eosinophils 320P EP-receptors 320P, 321P, 359P EP₃ 358P Epilepsy 391P, 393P Ethanol 368P Ethanol withdrawal 394P Ethanopharmacology 394P Evenomation, scorpion 423P **Excitotoxicity 339P** Extracellular ATP 435P

Fatty acids 354P, 357P Fluorescence spectrometry 347P Focal cerebral ischaemia 441P Free radicals 456P Functional assays 306P

G-proteins 355P, 458P
GABA 391P, 443P
GABA receptors 376P, 443P
GABA_A receptors 336P, 397P
GABA_B 315P
GABA_B receptors 332P
GABA_B receptor antagonists 393P
Galanin 282P
Gene expression 348P
Glucose metabolism 429P
Glutamate uptake 339P
Glutathione-S-transferase 343P
Glycine receptors 309P
Glycosylation 316P
[35]GTPy binding 400P

Haemodynamics 419P

Heart 436P Hepatic microsomes 346P Hepatocytes 342P, 344P Hippocampus 388P, 392P Histamine H2 receptors 400P 5-HT 291P, 304P, 319P, 330P, 408P 5-HT antagonists 284P 5-HT receptors 409P 5-HT₁ receptors 290P 5-HT_{1A} receptors 289P 5-HT_{2B} receptors 331P, 449P 5-HT_{2C} receptors 449P 5-HT_{2C} receptor formation 448P Hydralazine 403P Hydroxyradical 341P Hyperalgesia 451P Hypercholesterolaemia 432P Hyperlipidaemia 433P, 434P Hypoxanthine-xanthine oxidase 428P Hypoxia 301P

[3H]-Idazoxan 338P Ileum, mouse 376P, 377P Imidazoline sites 373P, 374P, 398P Imidazoline-2 sites 338P Immortalised rat hepatocytes 343P Immunisation, neonatal, rabbit 293P Immunohistochemistry 349P, 350P In situ hybridisation 397P In vitro pharmacology 421P, 422P Infarct size 433P, 434P Inflammatory bowel disease 371P **Inositol lipids 363P** Inositol phosphate 282P Interleukin ß 447P Intracellular calcium 314P Ion channel modulators 441P Ionic currents 406P IP-prostanoid receptors 355P Ischaemia 349P, 350P Isolation rearing 396P, 448P Isoprostane 285P

K_{ATP} channels 378P Kidney 358P Kidney cortex, rabbit 373P Kidney cortex, rat 373P Kinins 423P

Isoquinoline 305P

L-type calcium channel currents 435P Laboratory teaching 460P Lacidipine 294P Lamotrigine 390P Learning behaviour 393P Leukocytes 456P Leukotriene C₄ 275P Levcromakalim 378P Lipocortin 1 327P Lipopolysaccharides 363P Liposomes 366P Lodoxamide 287P

Long-term depression 392P Long-term potentiation 348P Low-density lipoproteins 317P Lung, rat 302P 5-Lypoxygenase 426P

Magnesium 407P MAP kinase 278P Mastitis 369P Maternal drugs 385P mCPP 449P Medical students 465P Mesenteries, rat 420P Mesoaccumbens 337P Metabotropic responses 332P Methacholine 418P O-Methylation 303P MHPG-SO₄ 335P Microdialysis 382P, 388P Microphysiometry 445P Milk 369P Mitochondria 345P Mitoxantrone 370P Monoamines 390P Monoarthritis 315P Monocytes 321P Monocytes, human 361P, 362P, 363P Monosynaptic segmental reflex 313P Morphine 312P Morphine withdrawal 395P **MPA2 452P** MPP⁺ 305P, 341P Muscarinic receptors 381P Muscarinic responses 332P Muscimol 392P Myocardial ischaemia 286P Myofilament 297P Myography 413P Myometrium, human 280P, 359P

NA vasoconstriction 410P Natural products 383P ND7/23 444P Nerve growth factor 452P Nerve terminals 366P Neuroblastoma 299P, 430P Neuromuscular transmission 365P, 367P Neuronal cells 368P Neuropharmacology 351P Neuroprotection 340P, 440P Neutrophils 322P NFkB 281P Nicotine 337P Nicotinic acetylcholine receptors 450P Nicotinic receptors 438P Nitrergic nerves 323P Nitrergic transmission 318P Nitric oxide 317P, 319P, 322P, 323P, 325P, 326P, 411P, 452P, 456P, 457P Nitric oxide synthase 318P, 327P, 341P, 455P Nitric oxide synthesis 446P Nitrite 324P

Nitro-tyrosine 328P
Nitrovasodilators 324P
NK₃ receptors, human 445P
NMDA glycine sites 340P
NMDA receptors 313P
Nociception 315P, 446P, 447P
Noradrenaline 291P, 430P
Noradrenaline turnover 335P
Normocholesterolaemia 433P, 434P
NS-398 356P
Nucleus accumbens 384P

Oestrogens 402P Oocyte expression technique 309P Opioids 314P Org 5222 379P, 380P Org 20241 361P, 362P

P-CH₂-Leu-Trp 427P Paeonol 453P Parkinson's disease 305P Patch clamping 438P PDGF 364P PDE type IV inhibitors 293P, 399P PDE type IV isoenzyme expression 362P Platelet-derived growth factor 364P Peptides 351P Peptidoglycan 326P Perfusion myographs 424P Peroxynitrite 328P Pertussis toxins 400P Pharmacological principles 460P Pharmacology students 463P, 464P Phenothiazines 378P Phosphatidic acid 458P Picralima nitida 360P

Platelets 407P
Polyamines 283P, 367P
Potassium channels 292P

Place preference 395P

Potassium channels 292P, 301P, 401P, 420P

Potassium channel blockers 333P, 377P, 401P

Potassium currents 387P
Potassium-sensitive ATP channels

Preconditioning 287P, 288P Presynaptic action 387P Primary afferents 372P

Primates 304P

Problem-based learning 462P, 463P, 464P, 465P, 466P
Prostaglandin E₂ 354P
Prostaglandin H synthase-2 356P
Prostanoid receptors 280P
Protein kinase 279P
PtdIns 364P
Pulmonary artery fibroblasts 431P
Pulmonary endothelial cells 291P
Pulmonary hypoxia 302P
Pulmonary myocytes, human 406P
Pulmonary resistance arteries 410P
Purinergic components 375P

Radioreceptor assays 307P
Receptors 306P, 308P, 358P, 450P
Receptor coupling 445P
Relaxation 409P
Renal cells 303P
Reverse transcription polymerase chain reaction 280P
Ribosomal protein kinase 431P
Rolipram 399P
Rose Bengal 441P

Salt loading 294P Scopolamine 333P, 396P Semicarbazide-sensitive amine oxidase 414P Sensitisation 337P Septic shock 326P Shape change 407P Signal transduction pathways 329P Sinoatrial node cells, guinea-pig 435P Site-directed mutagenesis 442P **Smoking 328P** Smooth muscle 279P, 292P, 406P Smooth muscle, permeabilised 297P Sodium channels 390P 440P Sodium currents 453P

Sodium channels 390P
440P
Sodium currents 453P
Spinal cord 311P, 312P, 313P, 437P
Spinal cord, rat 438P
Spinal reflex 437P
Spreading depression 340P
Steroidal intravenous anaesthetics 443P
STZ diabetes 415P
Substance P 416P

Sulphamethazine 346P Superoxide anions 320P, 321P, 322P, 323P, 432P Swimming tests 448P Sympathetic nerves 372P

Tachykinins 416P 444P Tachykinin receptors 371P Tachykinin NK₃ receptors, human Tachyphylaxis 451P Temperature 365P Thromboxane 285P Thromboxane antagonists 284P Thymic lymphocytes 353P Tizanidine 312P TM4 cells 389P Tolcapone 303P Tolerance 404P Transmitter release 387P Transport 283P Tricyclic antidepressants 395P 1-(2-Trifluoromethyl)imidazole 446P Tumour cells 283P

Uterus 356P UTP 278P

Vanadate 417P
Vascular endothelium 409P
Vascular reactivity 415P
Vasoconstriction 420P
Vasoconstrictors 412P, 413P
Vasodilators 403P
Vasorelaxation 404P
Ventricular myocytes, guinea-pig 453P
Vigabatrin 391P

Water maze 396P Wire myographs 424P Working memory 333P

Xylazine 311P

Yohimbine 352P

Z1046 286P zif/268 348P