



BRITISH JOURNAL OF PHARMACOLOGY

Contents

page	
1	CLARKE, D. E. Restoration of tyramine responses by bretylium, BW392C60, bethanidine and monoamine oxidase inhibitors in reserpine-treated rats
12	DAVIS, W. G. The effects of beta adrenoceptor blocking agents on the membrane potential and spike generation in the smooth muscle of guinea-pig taenia coli
20	WADE, D. N. and BEILIN, L. J. Vascular resistance in the perfused isolated rat tail
37	BOWMAN, W. C. and NOTT, M. W. Actions of some sympathomimetic bronchodilator and beta-adrenoceptor blocking drugs on contractions of the cat soleus muscle
50	BORCHARD, F. and VOGT, MARTHE. Noradrenaline content of the heart of the adrenal-demedullated rat
56	CRAWFORD, T. B. B. and YATES, CELIA M. A method for the estimation of the catecholamines and their metabolites in brain tissue
72	AHTEE, LIISA, SHARMAN, D. F. and VOGT, MARTHE. Acid metabolites of monoamines in avian brain; effects of probenecid and reserpine
86	BHAGAT, B. Effects of chronic administration of nicotine on storage and synthesis of noradrenaline in rat brain
93	BLESA, MARTA I. and ROSS, G. Cholinergic mechanisms on the heart and coronary circulation
106	WALKER, R. J., WILLIS, J. C. and WILLIS, W. D. The action of <i>para</i> -methoxyphenylethylamine (PMPEA) on monosynaptic reflex transmission in the cat
117	TEBÉCIS, A. K. Properties of cholinceptive neurones in the medial geniculate nucleus
138	TEBÉCIS, A. K. Studies on cholinergic transmission in the medial geniculate nucleus
148	CRANKSHAW, D. P. and RAPER, C. Mephensin, methocarbamol, chlordiazepoxide and diazepam: actions on spinal reflexes and ventral root potentials
157	COX, B. M. and OSMAN, O. H. Inhibition of the development of tolerance to morphine in rats by drugs which inhibit ribonucleic acid or protein synthesis
171	COX, B. and POTKONJAK, D. Effects of drugs on tremor and increase in brain acetylcholine produced by oxotremorine in the rat
181	FELDBERG, W. and LANG, W. J. Effects of monoamine oxidase inhibitors and amphetamine on hypothermia produced by halothane
192	HOLT, P. F., LINDSAY, H. and BECK, E. G. Some derivatives of polyvinylpyridine 1-oxides and their effect on the cytotoxicity of quartz in macrophage cultures
202	ROBERTS, J. B., THOMAS, B. H. and WILSON, ANDREW. Placental transfer of pyridostigmine in the rat
206	SMITH, G. M., LAWRENCE, A. J., COLIN-JONES, D. G. and SCHILD, H. O. The assay of gastrin using the perfused rat stomach
214	DI ROSA, M. and SORRENTINO, L. Some pharmacodynamic properties of carrageenin in the rat
221	ANASTASI, A., BERTACCINI, G., CEI, J. M., DE CARO, G., ERSPAMER, V., IMPICCIATORE, M. and ROSEGHINI, M. Presence of caerulein in extracts of the skin of <i>Leptodactylus pentadactylus labyrinthus</i> and of <i>Xenopus laevis</i>
229	AMBACHE, N. and ABOO ZAR, M. An inhibitory action of histamine on the guinea-pig ileum
241	COLQUHOUN, D. and TATTERSALL, M. L. Rapid histamine assays: a method and some theoretical considerations
253	ROTHSCHILD, A. M. Mechanisms of histamine release by compound 48/80

CONTENTS

VOLUME 38 No. 1 JANUARY 1970

page

- 1 CLARKE, D. E. Restoration of tyramine responses by bretylium, BW392C60, bethanidine and monoamine oxidase inhibitors in reserpine-treated rats.
- 12 DAVIS, W. G. The effects of beta adrenoceptor blocking agents on the membrane potential and spike generation in the smooth muscle of guinea-pig taenia coli
- 20 WADE, D. N. and BELIN, L. J. Vascular resistance in the perfused isolated rat tail
- 37 BOWMAN, W. C. and NOTT, M. W. Actions of some sympathomimetic bronchodilator and beta-adrenoceptor blocking drugs on contractions of the cat soleus muscle
- 50 BORCHARD, F. and VOGT, MARTHE. Noradrenaline content of the heart of the adrenal-demedullated rat
- 56 CRAWFORD, T. B. B. and YATES, CELIA M. A method for the estimation of the catecholamines and their metabolites in brain tissue
- 72 AHTEE, LIISA, SHARMAN, D. F. and VOGT, MARTHE. Acid metabolites of monoamines in avian brain; effects of probenecid and reserpine
- 86 BHAGAT, B. Effects of chronic administration of nicotine on storage and synthesis of noradrenaline in rat brain
- 93 BLES, MARTA I. and ROSS, G. Cholinergic mechanisms on the heart and coronary circulation
- 106 WALKER, R. J., WILLIS, J. C. and WILLIS, W. D. The action of *para*-methoxyphenylethylamine (PMPEA) on monosynaptic reflex transmission in the cat.
- 117 TEBËCIS, A. K. Properties of cholinceptive neurones in the medial geniculate nucleus
- 138 TEBËCIS, A. K. Studies on cholinergic transmission in the medial geniculate nucleus
- 148 CRANKSHAW, D. P. and RAPER, C. Mephensin, methocarbamol, chlordiazepoxide and diazepam: actions on spinal reflexes and ventral root potentials
- 157 COX, B. M. and OSMAN, O. H. Inhibition of the development of tolerance to morphine in rats by drugs which inhibit ribonucleic acid or protein synthesis
- 171 COX, B. and POTKONJAK, D. Effects of drugs on tremor and increase in brain acetylcholine produced by oxotremorine in the rat
- 181 FELDBERG, W. and LANG, W. J. Effects of monoamine oxidase inhibitors and amphetamine on hypothermia produced by halothane
- 192 HOLT, P. F., LINDSAY, H. and BECK, E. G. Some derivatives of polyvinylpyridine 1-oxides and their effect on the cytotoxicity of quartz in macrophage cultures
- 202 ROBERTS, J. B., THOMAS, B. H. and WILSON, ANDREW. Placental transfer of pyridostigmine in the rat
- 206 SMITH, G. M., LAWRENCE, A. J., COLIN-JONES, D. G. and SCHILD, H. O. The assay of gastrin using the perfused rat stomach
- 214 DI ROSA, M. and SORRENTINO, L. Some pharmacodynamic properties of carrageenin in the rat
- 221 ANASTASI, A., BERTACCINI, G., CEI, J. M., DE CARO, G., ERSPAMER, V., IMPICCIATORE, M. and ROSEGHINI, M. Presence of caerulein in extracts of the skin of *Leptodactylus pentadactylus labyrinthicus* and of *Xenopus laevis*
- 229 AMBACHE, N. and ABOO ZAR, M. An inhibitory action of histamine on the guinea-pig ileum
- 241 COLQUHOUN, D. and TATTERSALL, M. L. Rapid histamine assays: a method and some theoretical considerations
- 253 ROTHSCHILD, A. M. Mechanisms of histamine release by compound 48/80

page

- 263 SHAPERO, M. and SOUTHGATE, P. J. The pharmacology of ambenoxan (2-(3',6'-dioxahexyl)-aminomethyl-1:4-benzodioxane), a centrally acting muscle relaxant
- 271 HALL, G. H. Effects of nicotine and tobacco smoke on the electrical activity of the cerebral cortex and olfactory bulb
- 287 O'KEEFE, RUTH, SHARMAN, D. F. and VOGT, MARTHE. Effect of drugs used in psychoses on cerebral dopamine metabolism
- 305 SHILLITO, ELIZABETH E. The effect of *parachlorophenylalanine* on social interaction of male rats
- 316 KHAN, I., QURESHI, Z. and HAQ, M. Study of the effects of progesterone therapy on the stilboestrol-induced sensitivity of isolated uteri of hypophysectomized rats
- 321 FLACK, J. D. The actions of ethinyloestradiol on the pituitary-adrenal system of the rat
- 332 AUBRY, M. L., COWELL, PAULINE, DAVEY, M. J. and SHEVDE, S. Aspects of the pharmacology of a new anthelmintic: pyrantel
- 345 GODFRAIND, T. and LESNE, M. The uptake of cardiac glycosides by intestinal smooth muscle of the guinea-pig in relation to digitalis receptors
- 353 SADAVONGVIVAD, CHIRAVAT. Pharmacological significance of biogenic amines in the lungs: 5-hydroxytryptamine
- 366 AVIADO, DOMINGO M. and SADAVONGVIVAD, CHIRAVAT. Pharmacological significance of biogenic amines in the lungs: histamine
- 374 AVIADO, DOMINGO M. and SADAVONGVIVAD, CHIRAVAT. Pharmacological significance of biogenic amines in the lungs: noradrenaline and dopamine
- 386 EDGE, N. D. The effect of antiadrenaline compounds on acetylcholine responses of frog rectus abdominis muscle
- 394 BUCKLEY, G. A. and JORDAN, C. C. Temperature modulation of α - and β -adrenoceptors in the isolated frog heart
- 399 BOWMAN, W. C. and HALL, MOIRA T. Inhibition of rabbit intestine mediated by α - and β -adrenoceptors
- 416 FOGELMAN, F. and GRUNDY, H. F. A comparison of the cardiovascular actions of AQ 110 with those of isoprenaline and salbutamol

**Proceedings of the British Pharmacological Society, London,
5-6 January, 1970**

- 433P NATOFF, I. L. and REIFF, B. Differential antagonism of the acutely lethal effects of organophosphates in rats
- 434P BUCKLEY, G. A. and HEATON, J. Cholinesterase in endplates of rat and chick: relationship of activity to log-dose response curves and the effects of some inhibitors
- 435P BHOOLA, K. D. and HEAP, P. F. Electron microscopy and histochemistry of isolated kallikrein granules
- 436P ASH, A. S. F. and TOH, H. T. Oxidative phosphorylation in heart mitochondria isolated from chlorpromazine-treated animals
- 437P KELVIN, A. S. Evidence that 1-methylimidazole-5-acetic acid is not a metabolite of histamine
- 438P MARLOW, H. F. A model noradrenaline binding site
- 439P PACHA, W. and SALZMANN, R. Inhibition of the re-uptake of neuronally liberated noradrenaline and α -receptor blocking action of some ergot alkaloids
- 440P ALABASTER, VALERIE A. and BAKHLE, Y. S. Removal of 5-hydroxytryptamine by rat isolated lung
- 441P BOYLES, SUSAN, LEWIS, G. P. and WESTCOTT, BARBARA. Intracellular enzymes in local lymph after chemical injury
- 442P HENDERSON, J. D. and SMITH, H. Turnover of pulmonary alveolar wall cells in guinea-pig and mouse after anaphylactic shock
- 443P AITKEN, MAUREEN M. and SANFORD, J. The effect of drugs on bovine tracheobronchial and pulmonary vascular tissue
- 444P VANE, J. R. and WILLIAMS, K. I. A sensitive method for the assay of oxytocin in blood
- 446P DAVIES, J. and ROBSON, J. M. The effects of vasopressin, adrenaline and noradrenaline on the mouse foetus
- 446P BROWN, D. A., HALLIWELL, J. V., JONES, K. B. and QUILLIAM, J. P. An attempt to determine whether acetylcholine can release acetylcholine from a sympathetic ganglion
- 448P SHEVDE, S. and SPILKER, B. A. The action of β -receptor antagonists on intracellular cardiac potentials
- 448P EBLE, J. N. The effects of intravenous acetylcholine on the cardiovascular system of the anaesthetized dog
- 449P TAI, SUHAILA A. AL and GRAHAM, J. D. P. Cholinergic mechanism in the perfused vessels of the rabbit ear
- 450P CURRY, S. H. and NORRIS, H. Acute tolerance to a sedative in man

Continued overleaf

page

- 451P LARGE, W. A. and MILTON, A. S. The effect of acute and chronic morphine administration on brain acetylcholine levels in the rat
- 452P IVERSEN, L. L., MITCHELL, J. F., NEAL, M. J. and SRINIVASAN, VASANTA. The effect of stimulation of inhibitory pathways on the release of endogenous γ -amino-butyric acid from the cat cerebral cortex
- 453P BOAKES, R. J., BRADLEY, P. B., BRIGGS, I. and DRAY, A. Effects of lysergic acid derivatives on 5-hydroxytryptamine excitation of brain stem neurones
- 454P LEONARD, B. E. and PALFREYMAN, M. G. Some biochemical correlates of convulsive activity in rats
- 455P GARATTINI, S., MARCUCCI, F. and MUSSINI, E. Studies on the anticonvulsant action of diazepam
- 457P CORSON, J. A., HESELTINE, G. F. D. and SMITH, D. J. Psychological stress during pregnancy, effects on mothers and offspring
- 458P CROW, T. J. and GILLBE, C. Methamphetamine-protryptiline interaction in rotating rats
- 459P BÖSSER, T. H., JOYCE, DAPHNÉ and SUMMERFIELD, ARTHUR. Factors affecting the acquisition of new behaviour after administration of an amphetamine-barbiturate mixture
- 460P MORRISON, CATHLEEN F. A potential screening test for minor tranquillizing drug action
- 460P BEATTIE, I. A., BERRY, P. A. and LISTER, R. E. Methods for detecting anti-anxiety drugs using baboons (*Papio cynocephalus*)
- 462P LIND, NORMA A. and SHINEBOURNE, E. Studies on the development of the autonomic innervation of the human iris
- 463P COUPAR, I. M. and TURNER, P. Relative potencies of some false transmitters on isolated human smooth muscle
- 464P KOSTERLITZ, H. W., LEES, G. M. and WALLIS, D. I. Further evidence for an electrogenic sodium pump in a mammalian sympathetic ganglion
- 465P COWIE, A. LOUISE, KOSTERLITZ, H. W., LYDON, R. J. and WATERFIELD, ANGELA A. The effects of morphine-like substances and their antagonists on transmission at the neuro-effector junction of the myenteric plexus-longitudinal muscle preparation of the guinea-pig ileum
- 466P KELVIN, A. S. A further method of eliminating interfering compounds in the gas chromatographic determination of urinary methylimidazoleacetic acids
- 468P VERE, D. W. The mechanism of a drug effect in man studied by a multivariant technique
- 469P COLLINGS, A. J. and SCHNEIDER, R. The multiple emulsion formulation for the slow release of drugs
- 469P ANCILL, R. J., JACKSON, D. M. and REDFERN, P. H. A method of investigating ureteral activity in the rat
- 470P WILLIS, A. L. A method for studying release of prostaglandins from superfused strips of isolated spleen
- 472P HERXHEIMER, A. and TOTHILL, A. Drug-induced pilomotion: an easily demonstrated α -effect of sympathomimetic drugs

page

- 473 ROSENGREN, ELSA and SVENSSON, S. E. Gastrin derivatives investigated for secretory potency and for changes in gastric mucosal histamine formation
- 478 REILLY, MARGARET A. and SCHAYER, R. W. *In vivo* studies on histamine catabolism and its inhibition
- 490 MCCONNELL, D. J. and MASON, BRENDA. The isolation of human plasma prekalikrein
- 503 MARSHALL, I. G. Studies on the blocking action of 2-(4-phenyl piperidino) cyclohexanol (AH5183)
- 517 HARRIS, J. B. and LEACH, G. D. H. The effect of some foreign anions on suxamethonium blockade of the isolated rat diaphragm preparation
- 530 CRANSTON, W. I. and ROSENDORFF, C. Acute effects of a monoamine oxidase inhibitor, tranlycypromine, on thermoregulation in the conscious rabbit
- 537 BREESE, G. R., KOPIN, I. J. and WEISE, VIRGINIA K. Effects of amphetamine derivatives on brain dopamine and noradrenaline
- 546 EKUE, J. M. KOFI, LOWE, D. C. and SHANKS, R. G. Comparison of the effects of propranolol and MJ 1999 on cardiac β -adrenoceptors in man
- 554 PARRATT, J. R. and WADSWORTH, R. M. The effect of catecholamine infusions on myocardial blood flow, metabolic heat production and on general haemodynamics, before and after alprenolol (H56/28), in anaesthetized cats
- 572 PETTEN, G. R. VAN and WILLES, R. F. β -Adrenoceptive responses in the unanaesthetized ovine foetus
- 583 GREENWAY, C. V. and STARK, R. D. The vascular responses of the spleen to intravenous infusions of catecholamines, angiotensin and vasopressin in the anaesthetized cat
- 593 HEIKEL, T. A. J. and LATHE, G. H. The effect of oral contraceptive steroids on bile secretion and bilirubin *Tm* in rats
- 602 ACEVES, J., ERLI, D. and MARTÍNEZ-MARAÑÓN, R. The mechanism of the paralysing action of tetramisole on *Ascaris* somatic muscle
- 608 MCCURRACH, P. H., PARK, JUDITH K. and PERRY, W. L. M. The effects of some drugs which induce agranulocytosis on the metabolism of separated human polymorphonuclear leucocytes and lymphocytes
- 616 HAYES, A. H., JR., MCSHANE, W. P. and SIDELL, F. R. The effect of acetyl strophanthidin on the hearts of normal dogs
- 620 ABEL, R. M., REIS, R. L. and STAROSCIK, R. N. Coronary vasodilatation following diazepam (Valium)

page

- 633 GILMORE, N. J. and VANE, J. R. A sensitive and specific assay for vasopressin in the circulating blood
- 653 HOLMES, S. W. The spontaneous release of prostaglandins into the cerebral ventricles of the dog and the effect of external factors on this release
- 659 JOHNSON, E. S., ROBERTS, M. H. T. and STRAUGHAN, D. W. Amino-acid induced depression of cortical neurones
- 667 ALLEN, D. J., GARG, K. N. and MARLEY, E. Mode of action of α -methylnoradrenaline on temperature and oxygen consumption in young chickens
- 688 BANERJEE, U., BURKS, T. F., FELDBERG, W. and GOODRICH, CECILIE A. Temperature responses and other effects of 5-hydroxytryptophan and 5-hydroxytryptamine when acting from the liquor space in unanaesthetized rabbits
- 702 SALAKO, L. A. and SMITH, A. J. Effects of amiloride on active sodium transport by the isolated frog skin: evidence concerning site of action
- 719 HODGES, J. R. and MITCHLEY, SUSAN. The effect of betamethasone on circadian and stress-induced pituitary-adrenocortical function in the rat
- 725 FARROW, S. P., HALL, M. and RICKETTS, C. R. Changes in the molecular composition of circulating hydroxyethyl starch
- 731 TIMSON, J. The effect of caffeine on the mitosis of human lymphocytes in culture
- 735 ROSS, G. Regional circulatory effects of pancreatic glucagon
- 743 LEVY, J. V. Effect of organic nitrates on myocardial oxygen consumption *in vitro*
- 749 SINGH, B. N. and VAUGHAN WILLIAMS, E. M. Local anaesthetic and anti-arrhythmic actions of alprenolol relative to its effect on intracellular potentials and other properties of isolated cardiac muscle
- 758 RAND, M. J. and VARMA, B. The effects of cholinomimetic drugs on responses to sympathetic nerve stimulation and noradrenaline in the rabbit ear artery
- 771 GREWAL, R. S. and KAUL, C. L. Mechanism of the antagonism of the hypotensive action of guanethidine by propranolol
- 776 ABBs, E. T. and ROBERTSON, M. I. Selective depletion of noradrenaline: a proposed mechanism of the adrenergic neurone-blocking action of bretylium
- 792 FOLLENFANT, M. J. and ROBSON, R. D. The antagonism of adrenergic neurone blockade by amphetamine and dexamphetamine in the rat and guinea-pig
- 802 BENNETT, T., BURNSTOCK, G., COBB, J. L. S. and MALMFORS, T. An ultrastructural and histochemical study of the short-term effects of 6-hydroxydopamine on adrenergic nerves in the domestic fowl
- 810 JARROTT, B. Uptake and metabolism of catecholamines in the perfused hearts of different species
- 822 Index to Volume 38