BRITISH JOURNAL OF PHARMACOLOGY May 1969 Volume 36 Number 1

Contents

- 1 BEANI, L., BIANCHI, CLEMENTINA, and CREMA, A. The effect of catecholamines and sympathetic stimulation on the release of acetylcholine from the guinea-pig colon
- 18 Carlsson, A., Fuxe, K., Hamberger, B. and Malmfors, T. Effect of a new series of bicyclic compounds with potential thymoleptic properties on the reserpine resistant uptake mechanism of central and peripheral monoamine neurones in vivo and in vitro
- 29 McQueen, E. G. Displacement from protein binding of sulphormethoxine by phenylbutazone using *in vivo* dialysis in rats
- 35 COLLINS, J. M., McDevitt, D. G., Shanks, R. G. and Swanton, J. G. The cardio-toxicity of isoprenaline during hypoxia
- 46 SLATER, P. Hypothermia following intraventricular injection of hemicholinium-3 in rats
- 53 HOBBIGER, F., MITCHELSON, F. and RAND, M. J. The actions of some cholinomimetic drugs on the isolated taenia of the guinea-pig caecum
- 70 CEASAR, P. M., RUTHVEN, C. R. J. and SANDLER, M. Catecholamine and 5-hydroxyindole metabolism in immunosympathectomized rats
- 79 BARNETT, A., STAUB, M. and SYMCHOWICZ, S. The effect of cocaine and imipramine on tyramine-induced release of noradrenaline-3H from the rat vas deferens in vitro
- 85 COWELL, PAULINE. The interactions of noradnamine and imipramine-like antidepressant drugs
- 97 CUTHBERT, A. W., PAINTER, ELISABETH and PRINCE, W. T. The effects of anions on sodium transport
- 107 MURPHY, G. F., ROBINSON, D. and SHARMAN, D. F. The effect of tropolone on the formation of 3,4-dihydroxyphenylacetic acid and 4-hydroxy-3-methoxyphenylacetic acid in the brain of the mouse
- 116 Lees, P. and Tavernor, W. D. The influence of suxamethonium on cardiovascular and respiratory function in the anaesthetized horse
- 132 DUNLOP, D. and SHANKS, R. G. Inhibition of the carotid sinus reflex by the chronic administration of propranolol
- 144 POLAK, R. L. The influence of drugs on the uptake of acetylcholine by slices of rat cerebral cortex
- 153 Costa, E., Neff, N. H. and NGAI, S. H. Regulation of metaraminol efflux from rat heart and salivary gland
- 161 HEMSWORTH, B. A. and MITCHELL, J. F. The characteristics of acetylcholine release mechanisms in the auditory cortex
- 171P Procedings of the British Pharmacological Society, London, 27-28 March, 1969

CONTENTS

VOLUME 36 No. 1 May 1969

page

- 1 BEANI, L., BIANCHI, CLEMENTINA, and CREMA, A. The effect of catecholamines and sympathetic stimulation on the release of acetylcholine from the guinea-pig colon
- 18 CARLSSON, A., FUXE, K., HAMBERGER, B. and MALMFORS, T. Effect of a new series of bicyclic compounds with potential thymoleptic properties on the reserpine-resistant uptake mechanism of central and peripheral monoamine neurones *in vivo* and *in vitro*
- McQueen, E. G. Displacement from protein binding of sulphormethoxine by phenylbutazone using *in vivo* dialysis in rats
- 35 COLLINS, J. M., McDEVITT, D. G., SHANKS, R. G. and SWANTON, J. G. The cardio-toxicity of isoprenaline during hypoxia
- 46 SLATER, P. Hypothermia following intraventricular injection of hemicholinium-3 in rats
- 53 HOBBIGER, F., MITCHELSON, F. and RAND, M. J. The actions of some cholinomimetic drugs on the isolated taenia of the guinea-pig caecum
- 70 CEASAR, P. M., RUTHVEN, C. R. J. and SANDLER, M. Catecholamine and 5-hydroxyindole metabolism in immunosympathectomized rats
- 79 BARNETT, A., STAUB, M. and SYMCHOWICZ, S. The effect of cocaine and imipramine on tyramine-induced release of noradrenaline-3H from the rat vas deferens *in vitro*
- 85 COWELL, PAULINE. The interactions of noradnamine and imipramine-like antidepressant drugs
- 107 Murphy, G. F., Robinson, D. and Sharman, D. F. The effect of tropolone on the formation of 3,4-dihydroxyphenylacetic acid and 4-hydroxy-3-methoxyphenylacetic acid in the brain of the mouse
- 116 Lees, P. and Tavernor, W. D. The influence of suxamethonium on cardiovascular and respiratory function in the anaesthetized horse
- 132 DUNLOP, D. and SHANKS, R. G. Inhibition of the carotid sinus reflex by the chronic administration of propranolol
- 144 POLAK, R. L. The influence of drugs on the uptake of acetylcholine by slices of rat cerebral cortex
- 153 Costa, E., Neff, N. H. and Ngai, S. H. Regulation of metaraminol efflux from rat heart and salivary gland
- 161 HEMSWORTH, B. A. and MITCHELL, J. F. The characteristics of acetylcholine release mechanisms in the auditory cortex

Proceedings of the British Pharmacological Society, London, 27-28 March, 1969

- 171P GARDINER, J. E. and SUNG, LEE HOW. A p-terphenyl hemicholinium compound
- 172P BRIMBLECOMBE, R. W. and EVERETT, SALLY D. Actions of a cholinergic antagonist on mammalian skeletal muscle
- 173P BRITTAIN, R. T., LEVY, G. P. and TYERS, M. B. Observations on the neuromuscular blocking action of 2-(4-phenylpiperidino)-cyclohexanol (AH 5183)
- 174P WISLICKI, L. Effects of catecholamine beta-receptor blocking agents on striated muscle
- 176P BARTLET, A. L. and HASSAN, T. A nerve-blocking action of MJ-1999
- 177P HARRISON, J. and TURNER, P. Comparison of propranolol and I.C.I. 50,172 on isoprenaline-induced increase in skin temperature in man
- 178P PAPP, J. GY. and VAUGHAN WILLIAMS, E. M. The effect of some catecholamine β -receptor blocking compounds on the toxicity to the heart of ouabain
- 179P LAMB, J. F. and MACKINNON, M. G. A. Sodium fluxes in cultured cells in the presence of ouabain
- 180P PARK, JUDITH K. The uptake of tetracycline by human blood cells
- 181P FOWLER, J. S. L. A new metabolite of carbon tetrachloride
- 182P CARLYLE, R. F. The occurrence of catecholamines in the sea anemone Actinia equina
- 182P RANG, H. P. and RITTER, J. M. Evidence for a molecular change in acetylcholine receptors produced by agonists
- 183P BEVERIDGE, T. The quantitative estimation of the activity of fourteen analogues of the neurohypophysial hormones on strips of mammary gland *in vitro*

- 185P Brown, R. A., Poyser, R. H. and Telford, J. M. Modification by phospholipids of responses of the guinea-pig isolated ileum to drugs and transmural stimulation
- 186P HEAZELL, M. A. A non-adrenergic component to the inhibitory innervation of the fundus of the rat stomach
- 188P HORTON, E. W. and MARLEY, P. B. An investigation of the possible effects of prostaglandins E_1 , $F_{2\alpha}$ and $F_{2\beta}$ on pregnancy in mice and rabbits
- 189P COVILLE, P. F. and TELFORD, J. M. Changes in drug sensitivity in hyperthyroidism
- 190P Foy, J. M. and FURMAN, B. L. Diuretics and carbohydrate metabolism in the mouse
- 191P ABBS, E. T. and ROBERTSON, M. I. A possible relationship between depletion of noradrenaline and blockade of adrenergic neurones
- 192P COOPER, S. J., JOYCE, DAPHN, and SUMMERFIELD, A. Self-stimulation of the brain after administration of an amphetamine-barbiturate mixture
- 193P SHILLITO, ELIZABETH E. The effect of p-chlorophenylalanine on social interactions of male rats
- 194P Marley, E. and Stephenson, J. D. Effects of some catecholamines infused into the hypothalamus of young chickens
- 195P ALLEN, D. J., GARG, K. N. and MARLEY, E. Hypothermia due to a-methylnoradrenaline in young chickens
- 197P HARRIS, M. C., MILTON, A. S. and PATERSON, ANNA T. The effects of pempidine and hexamethonium on release of antidiuretic hormone by nicotine and osmotic stimuli in the cat
- 198P WALKER, R. J., WILLIS, J. C. and WILLIS, W. D. The effect of p-methoxyphenylethylamine (PMPEA) on monosynaptic reflexes in the cat
- 199P KEY, B. J. and White, R. P. Neuropharmacological effects of cystathionine and cysteine in cats
- 200P HALL, G. H. Some actions of nicotine and tobacco smoke on activity of the cerebral cortex and olfactory bulb
- 201P MITCHELL, J. F., NEAL, M. J. and SRINIVASAN, VASANTA. The release of amino-acids from electrically stimulated rat cerebral cortex slices
- 202P AHTEE, LIISA, SHARMAN, D. F. and VOGT, MARTHE. Effect of probenecid on dopamine metabolites in pigeon brain
- 203P GOODCHILD, MARGARET A. The effects of two inhibitors of catecholamine synthesis on the content of noradrenaline and dopamine of the rat brain
- 204P GEDDES, CLAIRE, and MOIR, A. T. B. The removal of L-tryptophan from cerebrospinal fluid in the dog
- 205P NEAL, M. J. Uptake of [14C]-glycine by rat spinal cord
- 206P IVERSEN, L. L. and NEAL, M. J. Subcellular distribution of endogenous and [3H]-GABA in rat cerebral cortex
- 208P NAYLOR, R. J. and Olley, J. E. The distribution of haloperidol in rat brain
- 209P LEACH, G. D. H. and ZUMANI, E. C. The effects of some changes in the perfusion solution on the vasoconstrictor responses of the isolated rat mesentery preparation
- 210P Dow, R. C. and Moir, A. T. B. Perfusion of the cerebral ventricular system in the conscious rabbit
- 211P ARMITAGE, A. K., HALL, G. H. and HENEAGE, E. A smoking simulator for the controlled presentation of tobacco smoke to laboratory animals
- 213P JONES, B. J., ROBERTS, D. J. and TOLMAN, B. D. Problems associated with the statistical analysis of drug interactions
- 213P COUPAR, I. M. and TURNER, P. Relative potencies of sympathetic amines in human smooth muscle
- 214P MAIN, I. H. M. Effects of prostaglandin E₂ (PGE₂) on the output of histamine and acid in rat gastric secretion induced by pentagastrin or histamine
- 215P COURTICE, C., McQUEEN, D. S., TULETT, D. J. and UNGAR, A. A digital oscillogram analyser used in biological assay and other experimental procedures
- 216P MILTON, A. S., TULETT, D. J. and WENDLANDT, SABINE. A method of heating and cooling the hypothalamic area of the conscious cat's brain with simultaneous perfusion of the third ventricle
- 216P CRUNKHORN, PEARL, and WILLIS, A. L. Actions and interactions of prostaglandins administered intradermally in rat and in man

VOLUME 36 No. 2 JUNE 1969

- 219 BARTON, A. A. and BARTON, MARY. ACTH and decubitus ulceration: an experimental study
- 225 ACETO, M. D., MCKEAN, DONNA B. and PEARL, J. Effects of opiates and opiate antagonists on the Straub tail reaction in mice
- 240 BHARGAVI, K. P., KOHLI, R. P., SINHA, J. N. and TAYAL, G. Role of catecholamines in centrogenic cardiac arrhythmia induced by aconitine
- 253 KHALIDI, A. and ZAKI, SANIHA AMIN. The mode of action of carbon tetrachloride on Fasciola hepatica
- 257 DOHADWALLA, A. N., FREEDBERG, A. S. and VAUGHAN WILLIAMS, E. M. The relevance of β-receptor blockade to ouabain-induced cardiac arrhythmias
- 268 HASSAN, T. A hyoscine-resistant contraction of isolated chicken oesophagus in response to stimulation of parasympathetic nerves
- 276 LÜLLMANN, H., PETERS, T. and VAN ZWIETEN, P. A. The distribution of ³H-labelled cardenolides between isolated guinea-pig atrial tissue and circulating oxygenated whole blood
- 286 KAYAALP, S. O. and McIsaac, R. J. Muscarinic component of splanchnic-adrenal transmission in the dog
- 294 RICHENS, A. The action of general anaesthetic agents on root responses of the frog isolated spinal cord
- 312 RICHENS, A. Microelectrode studies in the frog isolated spinal cord during depression by general anaesthetic agents
- 329 SCHILD, H. O. The effect of metals on the S-S polypeptide receptor in depolarized rat uterus
- 350 Toda, N. Effects of calcium, sodium and potassium ions on contractility of isolated atria and their responses to noradrenaline
- HILL, R. C. and TURNER, P. Preliminary investigations of a new beta-adrenoceptive receptor blocking drug, LB46, in man
- 373 SHARKAWI, MAHMOUD, and SCHULMAN, M. P. Relationship between acetylcholine synthesis and its concentration in rat cerebral cortex
- 380 DUTTA, S. N., SANYAL, R. K. and TRIPATHI, O. N. Studies on the action of acetylcholine on the sino-auricular node of the dog
- 386 LUNDBORG, P. Effect of reserpine on the subcellular distribution of ⁸H-a-methylnoradrenaline in the mouse heart

VOLUME 36 No. 3 JULY 1969

- 393 TODA, N. Interactions of ouabain and noradrenaline in isolated rabbit's atria
- 409 Eyre, P. The pharmacology of sheep tracheobronchial muscle: a relaxant effect of histamine on the isolated bronchi
- 418 Evans, M. H. The effects of saxitoxin and tetrodotoxin on nerve conduction in the presence of lithium ions and of magnesium ions
- 426 Evans, M. H. Differences between the effects of saxitoxin (paralytic shellfish poison) and tetrodotoxin on the frog neuromuscular junction
- 437 DAVIES, D. T. P., HUGHES, A. and TONKS, R. S. The influence of salicylate on platelets and whole blood adenine nucleotides
- 448 WILSON, W. S. The effects of phenobarbitone, leptazol, dexamphetamine, iproniazid, imipramine, LSD, chlorpromazine, reserpine and hydroxyzine on the *in vivo* levels of adenine nucleotides and phosphocreatine in the rat brain
- 458 Martin, K. Effects of quaternary ammonium compounds on choline transport in red cells
- 470 ROGERS, K. J. and THORNTON, J. A. The interaction between monoamine oxidase inhibitors and narcotic analgesics in mice
- 481 FINCH, L. and LEACH, G. D. H. The role of the sympathetic nervous system in the cardiovascular responses to angiotensin in the pithed rat
- 489 HODGES, J. R. and SADOW, JANET. Hypothalamo-pituitary-adrenal function in the rat after prolonged treatment with cortisol
- 496 SCHNIEDEN, H. and WESTON, A. H. Investigation of the spasmogenic effect of manganese on the guinea-pig isolated ileum preparation
- 510 Freeman, Shirley E. and Turner, R. J. Ionic interactions in acetylcholine contraction of the denervated rat diaphragm
- 523 SHARMAN, D. F. Glycol metabolites of noradrenaline in brain tissue
- 535 GULDBERG, H. C. and YATES, CELIA M. Effects of chlorpromazine on the metabolism of catecholamines in dog brain
- 549 GODFRAIND, T. and KABA, A. Blockade or reversal of the contraction induced by calcium and adrenaline in depolarized arterial smooth muscle
- 561 Aellig, W. H. and Berde, B. Studies of the effect of natural and synthetic polypeptide type ergot compounds on a peripheral vascular bed
- 571 STAFFORD, ANNE. Actions of adrenaline on the potassium balance of the isolated heart
- 582 KALSNER, STANLEY. Steroid potentiation of responses to sympathomimetic amines in aortic strips
- 594 Guimarães, S. Reversal by pronethalol of dibenamine blockade: a study of the seminal vesicle of the guinea-pig
- 602 Frewin, D. B., Jellett, L. B. and Whelan, R. F. Modification of the vasoconstrictor action of sympathomimetic agents by bretylium tosylate and translycypromine in man
- 611 Ferreira, S. H. and Rocha E Silva, M. Liberation of a bradykinin-like substance in the circulating blood of dogs by trypsin, chymotrypsin and nagarse
- 623 GREENBAUM, L. M., FREER, R., CHANG, J., SEMENTE, G. and YAMAFUJI, K. PMN-kinin and kinin metabolizing enzymes in normal and malignant leucocytes
- 635 AL-KATIB, H. A. and BABA, W. J. The action of certain haloalkylamines on some biological activities of bradykinin
- 642 Index to Volume 36