# **British Journal of Pharmacology**

# **CONTENTS**

#### VOLUME 67 NUMBER 1 SEPTEMBER 1979

# **REVIEW LECTURE**

3 BURN, J.H. Excitatory actions of acetylcholine in the heart

#### SHORT COMMUNICATION

13 CAREY, BERNADETTE & WHALLEY, E.T.  $\beta$ -Adrenoceptor agonist activity of labetolol on the isolated uterus of the rat

## **PAPERS**

- 17 GORDON, D., HENDERSON, D.C. & WEST-WICK, J. Effects of prostaglandins E<sub>2</sub> and I<sub>2</sub> on human lymphocyte transformation in the presence and absence of inhibitors of prostaglandin biosynthesis
- 23 BUTCHERS, P.R., FULLARTON, J.R., SKID-MORE, I.F., THOMPSON, L.E., VARDEY, C.J. & WHEELDON, A. A comparison of the anti-anaphylactic activities of salbutamol and disodium cromoglycate in the rat, the rat mast cell and in human lung tissue.
- 33 DEL SOLDATO, P., MELI, A. & VOLTERRA, G. Influence of fasting and cimetidine on the relationship between ulcerogenic and anti-inflammatory properties of indomethacin
- 39 LANG, RICHARD J. The effects of calcium and magnesium ions, temperature and repetitive stimulation on inhibitory junctional transmission in smooth muscle of guinea-pig small intestine
- 51 DUGGAN, A.W. & GRIERSMITH, B.T. Methyl xanthines, Adenosine 3',5'-cyclic monophosphate and the spinal transmission of nociceptive information
- 59 ANGUS, J.A. & BLACK, J.W. Analysis of anomalous  $pK_B$  values for metiamide and atropine in the isolated stomach of the mouse
- 67 PIPER, PRISCILLA J. & SEALE, J.P. Nonimmunological release of slow-reacting substance from guinea-pig lungs

- 73 COCKBILL, S.R., HEPTINSTALL, S. & TAY-LOR, PATRICIA M. A comparison of the abilities of acetylsalicylic acid, flurbiprofen and indomethacin to inhibit the release reaction and prostaglandin synthesis in human blood platelets
- 79 COOPER, MARIE & WYLLIE, JOHN H. Some properties of 5-hydroxytryptamine receptors in the hindquarters of the rat
- 87 MONTI, J.M. The effects of neuroleptics with central dopamine and noradrenaline receptor blocking properties in the L-DOPA and (+)-amphetamine-induced waking EEG in the rat
- 93 BORYS, HENRY K., INGALL, GLYNNIS B. & KARLER, RALPH. Development of tolerance to the prolongation of Hexobarbitone sleeping time caused by cannabidiol
- 103 MANTEGAZZA, PAOLO, TAMMISO, REMI-GIO, VICENTINI, LUCIA, ZAMBOTTI, FER-NANDA & ZONTA, NERINA. Muscimol antagonism of morphine analgesia in rats
- 109 BAKHLE, Y.S. & BEN-HARARI, R.R. Effects of the oestrous cycle and exogenous ovarian steroids on metabolism of  $\beta$ -phenylethylamine in rat lung
- 115 FUENMAYOR, LUIS D. & VOGT, MARTHE.
  Production of catalepsy and Depletion of brain
  monoamines by a butyrophenone derivative.
- 123 BUNCE, K.T., HONEY, A.C. & PARSONS, M.E. Investigation of the role of extracellular calcium in the control of acid secretion in the isolated whole stomach of the rat
- 133 DREW, G.M., GOWER, ALMA J. & MAR-RIOTT, A.S. α<sub>2</sub>-Adrenoceptors mediate clonicineinduced sedation in the rat
- 143 ARITA, MAKOTO, GOTO, MASAYOSI, NAGAMOTO, YASUO, & SAIKAWA, TET-SUNORI. Electrophysiological actions of Mexiletine (Kö1173) on canine Purkinje fibres and ventricular muscle
- 153 CUSACK, N.J. & Planker, M. Relaxation of isolated taenia coli of guinea-pig by enantiomers of 2-azido analogues of adenosine and adenine nucleotides

# **VOLUME 67 NUMBER 2 OCTOBER 1979**

- 161 FARSANG, CSABA & KUNOS, GEORGE Naloxone reverses the antihypertensive effect of clonidine
- 165 BOAKES, R.J., BRADLEY, P.B. & CANDY, J.M. Interactions of (+)-amphetamine and chlorpromazine on neurones in the lower brain stem of the rat
- 173 BESLUAU, D., GAUTHIER-RAHMAN, S. & HALPERN, B. The protective effect of some phenothiazine derivatives against streptolysin O
- 179 MORRIS, H.R., PIPER, PRISCILLA J., TAY-LOR, G.W. & TIPPINS, J.R. Comparative studies on immunologically and non-immunologically produced slow-reacting substances from man, guinea-pig and rat
- 185 HOPE, W., MAJEWSKI, H., McCULLOCH, M.W., RAND, M.J. & STORY, D.F. Modulation of sympathetic transmission by neuronallyreleased dopamine.
- 193 CHAND, N. & EYRE, P. Coronary anaphylaxis in vitro
- 199 BARRETT, J.C. & HARVEY, A.L. Effects of the venom of the green mamba, *Dendroaspis angusti*ceps on skeletal muscle and neuromuscular transmission
- 207 DREW, G.M. & WHITING, SUSAN B. Evidence for two distinct types of postsynaptic α-adrenoceptor in vascular smooth muscle in vivo
- 217 GERBER, JOHN G. & NIES, ALAN S. The failure of indomethacin to alter ACTH-induced adrenal hyperaemia or steroidogenesis in the anaesthetized dog
- 221 LITTLE, HILARY J. & PATON, W.D.M. The effects of high pressure helium and nitrogen on the release of acetylcholine from the guinea-pig ileum
- 229 HALLIDAY, D.J.X. LITTLE, HILARY J. & PATON, W.D.M. The effects of inert gases and other general anaesthetics on the release of acetylcholine from the guinea-pig ileum

- 239 McCAIG, DOROTHY & PARRATT, J.R. The cardiovascular pharmacology of 7-propyl-theophylline-dopamine (D4975); comparison with dopamine and dobutamine
- 247 FENIUK, W., HUMPHREY, P.P.A. & WATTS, A.D. Presynaptic inhibitory action of 5-hydroxy-tryptamine in dog isolated saphenous vein
- 255 ALTURA, BURTON M. & WEINBERG, JULIO Urethane and contraction of vascular smooth muscle
- 265 JOOST, H.G. Inhibition of insulin secretion from the perfused pancreas of the rat by pizotifen
- 269 MALIK, K.U. & NASJLETTI, A. Attenuation by bradykinin of adrenergically-induced vasoconstriction in the isolated perfused kidney of the rabbit: relationship to prostaglandin synthesis
- 277 CARTER, D.A. & DYER, R.G. Inhibition by pentobarbitone and urethane of the *in vitro* response of the adenohypophysis to luteinising hormone-releasing hormone in male rats
- 283 CAVERO, I., DENNIS, T., LEFÈVRE-BORG, FRANÇOISE, PERROT, P., ROACH, A.G. & SCATTON, B. Effects of clonidine, prazosin and phentolamine on heart rate and coronary sinus catecholamine concentration during cardioaccelerator nerve stimulation in spinal dogs
- 293 BAER, HANS P. & FREW, ROBERT Relaxation of guinea-pig fundic strip by adenosine, adenosine triphosphate and electrical stimulation: lack of antagonism by theophylline or ATP treatment
- 301 SMALL, R.C. & WESTON, A.H. Theophylline antagonizes some effects of purines in the intestine but not those of intramural inhibitory nerve stimulation
- 309 FUENMAYOR, LUIS D. & VOGT, MARTHE The influence of cerebral 5-hydroxytryptamine on catalepsy induced by brain-amine depleting neuroleptics or by cholinomimetics

# **VOLUME 67 NUMBER 3 NOVEMBER 1979**

#### SHORT COMMUNICATIONS

- 323 KERWIN, R.W. & PYCOCK, C.J. Thyrotrophin releasing hormone stimulates release of [<sup>3</sup>H]-dopamine from slices of rat nucleus accumbens in vitro
- 327 BOWMAN, ANN, GILLESPIE, J.S. & MARTIN, W. The inhibitory material in extracts from the bovine retractor penis muscle is not an adenine nucleotide

#### **PAPERS**

- 329 FOLDES, A. & HALL, R.C. The effects of histamine on responses of the rabbit ear artery to electrical stimulation and to exogenous noradrenaline
- 337 BELL, CHRISTOPHER & LANG, WILLIAM J. Evidence for dopaminergic vasodilator innervation of the canine paw pad

- 345 CHOW, EDWIN, KIM, RYUNG-SOON SONG, LABELLA, FRANK S. & QUEEN, GARY. Ouabain receptor binding of hydroxyprogesterone derivatives
- 353 FARJO, I.B. & McQUEEN, JUDITH K. Dopamine agonists and cobalt-induced epilepsy in the rat
- 361 GRANGER, D.N., RICHARDSON, P.D.I. & TAY-LOR, A.E. The effects of isoprenaline and bradykinin on capillary filtration in the cat small intestine
- 367 IMMS, F.J., NEAME, R.L.B. & POWIS, D.A. The subdivision of β-adrenoceptors in the cardiovascular system of the rat
- BIRDSALL, N.J.M., BURGEN, A.S.V., HULME, E.C. & WELLS, J.W. The effects of ions on the binding of agonists and antagonists to muscarinic receptors
   FAIRBAIRN, J.W. & PICKENS, JOAN T. The oral
- 379 FAIRBAIRN, J.W. & PICKENS, JOAN T. The oral activity of Δ'-tetrahydrocannabinol and its dependence on prostaglandin E<sub>2</sub>
- 387 KIRKSEY, D.F. & SLOTKIN, T.A. Concomitant development of [3H]-dopamine and [3H]-5-hydroxytryptamine uptake systems in rat brain regions
   393 LEWIS, G.P., PIPER, PRISCILLA J. & VIGO, CAR-
- MEN. The effects of glucocorticoids on the distribution and mobilisation of arachidonic acid in fat cell ghosts

  401 CHAN, CHI-CHUNG & KALSNER, STANLEY. An examination of the negative feedback function of pre-
- synaptic adrenoceptors in a vascular tissue

  409P PROCEEDINGS OF THE BRITISH PHARMACO-LOGICAL SOCIETY, University of Dublin, Trinity
- College, 17th-20th July, 1979
  409P TOWART, R. & KAZDA. S. The cellular mechanism of action of nimodipine (BAY e 9736), a new calcium antagonist
- 410P TAMARGO, J. Electrophysiological effects of bunaphtine on guinea pig myocardium
- 411P MURNAGHAN, M.F. Sensitising effect of sodium palmitate to an induced arrhythmia in the isolated perfused hypoxic rabbit heart
- 412P BARLOW, J.J., MAIN, B.G., MOORS, J.A., NUTTALL, A. & SNOW, H.M. (introduced by CONWAY, J.) The cardiovascular activity of ICI 118,587 a novel β-adrenoceptor partial agonist
- 412P APPERLEY, G.H., COLEMAN, R.A., KENNEDY, I. & LEVY, G.P. The cat isolated trachea, a useful preparation for the study of the smooth muscle relaxant action of prostaglandins
- 414P DALY, M.J., HUMPHRAY, J.M. & STABLES, R. Antagonism of vasodepressor and gastric secretory responses to histamine by ranitidine and cimetidine in the anaesthetised dog
- 415P NAHORSKI, S.R. & SRIWATANAKUL, K. Analysis of the activity and distribution of  $\beta$ -adrenoceptor antagonists in the rat using an  $ex\ vivo$  receptor binding assay
- 416P MILLSON, D.S. & REES SMITH, B. (introduced by RAWLINS, M.D.) The effects of temperature and ionic environment on antagonist binding to cardiac  $\beta$ -adrenoceptors

- 417P DUBOCOVICH, MARGARITA L., LANGER, S.Z. & PELAYO, F. Cocaine and desipramine antagonize the clonidine-induced inhibition of [3H]-noradrenaline release from the rat cerebral cortex
- 418P CHEVILLARD, C., DA PONTE, FRANCESCA, MATHIEU MARIE-NOELLE, SAIAG, B. & WORCEL, M. Inhibitory presynaptic effects of hydralazine on noradrenergic nerve terminals of the rat tail artery
- 419P ABBS, E.T. & DUTTA, C.F. Oxymetazoline-sensitive and -insensitive presynaptic α-adrenoreceptors in isolated rat atria
- 421P BROWN, R.A., BROWN, R.C., O'CONNOR, S.E. & SOLCA, ANNE M. Pre- and post-synaptic activities of some dopamine analogues and related compounds
- 421P DOCHERTY, J.R., MACDONALD, A. & McGRATH, J.C. Further sub-classification of α-adrenoceptors in the cardiovascular system, vas deferens and anococcygeus of the rat
- 422P COLLIS, M.G. & SHEPHERD, J.T. The effect of amitriptyline on presynaptic receptors in the dog saphenous vein
- 423P FENIUK, W., HUMPHREY, P.P.A. & WATTS, A.D. Preliminary characterisation of the presynaptic receptor for 5-hydroxytryptamine in dog isolated saphenous vein
- 424P CERRITO, F. & RAITERI, M. Evidence for an autoreceptor-mediated presynaptic control of scrotonin release in central nerve endings
- 425P AHERN, C.P., McLOUGHLIN, J.V., WHEATLEY, A.M. & WILSON, P. (introduced by WILSON, C.W.M.) Althesin as an anaesthetic in experimental animals susceptible to halothane-initiated malignant hyperthermia
- 426P LAWRENCE, D. & LIVINGSTON, A. The effect of physostigmine and neostigmine on ketamine anaesthesia and analgesia
- 427P HOWE, S.J., McCARTHY, P.S. & METCALF, G. Assessment of physical dependence in rats after continuous intraperitoneal infusion of morphine or ketocyclazocine
- 427P METCALF, G., REES, J.M.H. & WARD, SUSAN J.
  Dependence, tolerance and cross-tolerance induced by
  morphine and ethylketocyclazocine
- 428P SHAW, J.S. (introduced by TURNBULL, M.J.) Characterization of opiate receptors in the isolated rat rec-
- 429P PINNOCK, R.D., TURNBULL, M.J. & WOOD-RUFF, G.N. Effects of peptides on neurones in the substantia nigra and nucleus accumbens
- 430P FREEDMAN, J.B., WAIT, CHRISTINE P. & WOODRUFF, G.N. Effects of dopamine receptor agonists and antagonists in the rat nucleus accumbens
- 431P BLACKBURN, T.P., FOSTER, G.A., HEAPY, C.G. & KEMP, J.D. (introduced by GREENWOOD, D.T.) Differential rotational behaviour after unilateral 5.7-dihydroxytryptamine induced lesions of the dorsal raphé nucleus

- 432P JENNER, P., LEIGH, N., MARSDEN, C.D. & REA-VILL, C. Dopamine mediated circling behaviour is modulated by lesions of the ventromedial nucleus of the thalamus
- 433P CLOW, A., JENNER, P., MARSDEN, C.D., REA-VILL, C. & THEODOROU, A. Stereoselective blockade of cerebral dopamine receptors by sulpiride and sultopride
- 434P DOGGETT, N.S. & MOORE, N.A. Antagonism of apomorphine and lergotrile hypothermia
- 434P BRILEY, M., LANGER, S.Z. & RAISMAN, RITA. Specific [<sup>3</sup>H]-imipramine binding in rat brain
- 435P SUGRUE, M.F. Effects of chronic antidepressant administration on the synthesis of monoamines in rat brain
- 436P BLUNDELL, J.E. & McARTHUR, R.A. Investigation of food consumption using a dietary self-selection procedure: effects of pharmacological manipulation and feeding schedules
- 438P MARSDEN, C.A. Evidence for the release of hippocampal 5-hydroxytryptamine by α-methyltryptamine
- 439P LEONARD, B.E. & MORINAN, A. Neurochemical effects of fluphenazine decanoate in socially-reared and isolated young rats
- 440P JENNER, P., MARSDEN, C.D., PRATT, J. & REY-NOLDS, E.H. Modulation of picrotoxin-induced forepaw myoclonus in the rat by benzodiazepines
- 441P TABERNER, P.V. Effects of sodium valproate and ethanolamine-O-sulphate on GABA metabolism in vivo
- 441P LAHAN, G.D., OSUIDE, G. & STANSFIELD, F. Anticonvulsant properties of ethyl-N-phthalimidoxy acetate
- 442P LLOYD, K.G., WILLIGENS, M.T. & WORMS, P. Biphasic effect of direct GABA mimetic drugs on haloperidol-induced catalepsy
- 443P SCHOLFIELD, C.N. Leptazol antagonises the postsynaptic actions of γ-aminobutyric acid
- 444P BOWERY, N.G., DOBLE, A., HILL, D.R., HUDSON, A.L., SHAW, J.S. & TURNBULL, M.J. Baclofen: a selective agonist for a novel type of GABA receptor
- 445P BOWERY, N.G., HILL, D.R. & MÖHLER, H. Sodium independent GABA receptor binding in peripheral nervous tissue
- 446P AL-HABOUBI, H.A. & ZEITLIN, I.J. The actions of cimetidine, mepyramine, indomethacin and aprotinin (Trasylol) on the inflammatory response in adjuvant rats
- 447P BLACK HAM, A. & WOODS, AUDREY M. The effect of some anti-rheumatic agents on tuberculin pleurisy in the guinea-pig
- 448P JACKSON, J. (introduced by WATON, N.G.) Modulation of spontaneous and acetylcholine-induced contractions of rat ileum by betamethasone

- 449P DELLA-CORTE, LAURA, GREMIGNI, D. MEGAZ-ZINI, IRENE, MOBILIO, RENATA & SCARAGLI, G.P. Chlorimipramine-induced phospholipidosis: biochemical and pharmacokinetic observations
- 450P BILLINGHAM, M.E.J. & TUCKER, MARY J. Correlation between the rise in acute phase proteins and histological evidence of ulceration in the rat following indomethacin treatment
- 451P IOANNIDES, C., OKINE, L. & PARKE, D.V. Effects of β-adrenoceptor antagonists on the hepatic mixed-function oxygenases in the rat
- 452P BROWN, M.J., DAVIES, D.S. & DOLLERY, C.T. Quantitative analysis of noradrenaline clearance
- 453P RUMSBY, P.C. & SHEPHERD, D.M. Effect of penicillamine, hydrallazine and phenelzine on the function of pyridoxal-5'-phosphate
- 454P GARCHA, G., IMRIE, P.R., MARLEY, E. & THOMAS, D.V. Effects of monoamine oxidase inhibitor (MAOI) pretreatment on the fate of intraduodenally instilled [14C]-tyramine
- 455P GILBERT, J.C. & WYLLIE, M.G. Inhibition of synaptosome ATPase by PGE<sub>1</sub> may be dependent on a soluble factor
- 456P ODUMOSU, A. & WILSON, C.W.M. Hypocholesterolemic effects of vitamin C, clofibrate and diosgenin in male guinea-pigs
- 457P LEWIS, A. & WILSON, C.W.M. The effect of vitamin C deficiency and supplementation on the weight pattern and skin potential of the guinea-pig
- 458P PUGH, D.M. & SUMANO, H.S. The effects of oestradiol-17β and tamoxifen on the development of mouse embryos cultured over collagen
- 459P HARDY, J.G., KELLAWAY, I.W., ROGERS, J. & WILSON, C.G. Distribution and fate in the rabbit of liposomes containing [131]-sodium iodide
- 460P JUNG, M.J., PALFREYMAN, M.G., RIBEREAU-GAYON, G., WAGNER, J. & ZRAĬKA, MONIQUE. Monamine-depleting properties of a new and very potent enzyme-activated irreversible inhibitor of aromatic amino acid decarboxylase: α-monofluoromethyldopa
- 461P FOZARD, J.R., PALFREYMAN, M.G., SPEDDING, M., WAGNER, J. & WOODWARD, J.K. Inhibition of peripheral sympathetic function by α-monofluoromethyldopa, an irreversible inhibitor of aromatic amino acid decarboxylase
- 462P BYRNE, A.J., HEALY, T.E.J. & TOMLINSON, D.R. The effects of ketamine on noradrenergic transmission and the response to noradrenaline in rat smooth muscle
- 463P SMITH, J.A. & SPRIGGS, T.L.B. An effect of neostigmine on the response of the rat anococcygeus muscle to field stimulation
- 464P SOKUNBI, YETUNDE O.O. (introduced by OKPAKO, D.T.) Does a prostaglandin modulate cholinergic transmission in the guinea-pig ileum?

- 464P KIRKPATRICK, C.T. & ROONEY, P.J. (introduced by SCHOLFIELD, C.N.) The contracture produced in tracheal smooth muscle by anticholinesterases
- 465P JAMISON, J.P. & McKINLEY, R.K. (introduced by RODDIE, I.C.) Evidence for histamine H<sub>2</sub> receptor mediated relaxation of rabbit trachea
- 466P DIGGES, K.G. & BOYLE, F.C. The effects of catecholamines on the rat isolated uterus
- 467P RODGER, I.W. Effects of Ca<sup>2+</sup> withdrawal and verapamil on excitation-contraction coupling in rabbit pulmonary vascular smooth muscle
- 469P BAKER, G.B., CALVERLEY, D.G., DEWHURST, W.G. & MARTIN, I.L. A sensitive gas chromatographic technique for quantification of urinary tryptamine
- 471P MULLEN, P.W. Pharmacokinetics of phenytoin and liver cytochrome P-450 levels in mice after single doses of Corynebacterium parcum
- 472P BRADSHAW, D., GIROUD, J.P. & ROCH-ARVEILLER, M. The effect of dibutyryl cyclic AMP on the chemotaxis and chemokinesis of rat polymorphonuclear leucocytes (PMN)
- 473P LIVINGSTON, A. & VERGARA, G.A. Effect of halothane on microtubule numbers in unmyelinated axons from rat sciatic nerve
- 474P CROOKS, R. JANE & MARTIN, G.R. An isolated vascular tissue preparation showing a specific relaxant effect of dopamine
- 474P BALFOUR, D., HEWICK, D. & MURRAY, N. Comparison of plasma, erythrocyte and brain lithium concentrations in the guinea-pig and rat
- 475P COSTALL, B., HUI, S-C.G. & NAYLOR, R.J. A demonstration of the ability of apomorphine to act on dopamine receptors on nerve terminals in the nucleus accumbens to reduce locomotor hyperactivity
- 476P PERKINS, M.N. & STONE, T.W. Adenosine may mediate neuronal depressant effects of morphine
- 477P ALDRIDGE, S., GLITHERO, P., HULL, SIAN, JAR-MANN, CHRISTINE, JOHNSON, G. & MARSDEN, C.A. Behavioural scoring—how good is the agreement between scorers?
- 478P BEVAN, P., BRADSHAW, C.M., PUN, R.Y.K., SLATER, N.T. & SZABADI, E. The relative contribution of iontophoresis and electro-osmosis to the electro-phoretic release of noradrenaline from multibarrelled micropipettes
- 479P DICKINSON, K. & NAHORSKI, S.R. Homogeneity of  $\beta$ -adrenoceptors on rat erythrocytes
- 480P LOVETT, G.S., SWEETMAN, A.J. & WEETMAN, D.F. A comparison of the effects of 2-2'-pyridylisatogen, 2-phenylisatogen and papaverine on calcium-stimulated respiration in mitochondria isolated from guinea-pig liver
- 481P CLARK, AMANDA L., HOBBIGER, F. & TERRAR, D.A. The effect of dithiothreitol on anticholinesterase induced antidromic firing and twitch potentiation

- 482P HARROWING, P.D. & WILLIAMS, K.I. Homogenates of rat placenta contain a factor(s) which inhibits uterine arachidonic acid metabolism
- 483P BATES, R.F.L., BUCKLEY, G.A. & STRETTLE, R.J.
  The action of salmon calcitonin on indomethacininduced gastric ulceration in the rat
- 484P ELLIOTT, P.N.C. The effect of combination of aspirin and sodium salicylate on the rat stomach
- 485P BOUDOT, J.P. & CAVERO, I. Effects of diltiazem and verapamil on the mechanical performance of the rabbit myocardium perfused with an oxygenated and an hypoxic medium
- 486P BORKHATARIA, B., HEMSWORTH, B.A., SHREEVE, S.M. & VEITCH, G.B.A. The pharmacological activity of some choline analogues and their acetylated derivatives
- 487P DREW, G.M. Is WB 4093 a selective presynaptic α<sub>2</sub>-adrenoceptor antagonist?
- 488P MACLAGAN, JENNIFER & NEY, URSULA M. Inhibition of propranolol-induced bronchospasm by sodium cromoglycate
- 488P FURMAN, B.L. & WILSON, G. ANN. Does the hypoglycaemic effect of 5-hydroxytryptophan involve insulin?
- 489P STEINER, J.A. & GRAHAME-SMITH, D.G. Pharmacological control of corticosterone secretion in the intact rat
- 490P GHAFFAR, A.A.R.A. & JACKSON, J. (introduced by FURMAN, B.L.) The effect of cortisol on the response of the depolarized, calcium-free mouse uterus to calcium
- 491P ATKINSON, P. & JACKSON, J. (introduced by BOWMAN, W.C.) Influence of betamethasone on concentrations of digoxin in rat serum, liver and heart
- 491P DUNNE, A. (introduced by CANNON, P.J.) Comparison of individual and cumulative dose-response curves
- 492P CALLANAN, K. & KEENAN, A.K. Prejunctional clonidine-adenosine interactions in the rat vas deferens
- 493P DEVANE, J. & RYAN, M.P. Urinary magnesium excretion during amiloride administration in saline-loaded rats
- 494P COUNIHAN, T.B., DUNNE, A., RYAN, M.F. & RYAN, M.P. Time-related changes in urinary aldoster-one and electrolyte excretion during amiloride administration to congestive heart failure patients
- 494P MILNE, A.A., SUMANO, H. & WILSON, C.W.M. Hay Fever: Diagnosis and treatment with vitamin C
- 495P AKSOY, M., BASU, T.K. & DICKERSON, J.W.T. (introduced by WILSON, C.W.M.) 5-Fluorouracil-induced thiamin deficiency—an experimental study
- 495P CHAMBERS, P.L. & ROWAN, M.J. Demonstration of central synaptic effects of chemicals in the American cockroach
- 495P FIDANZA, A., MARTINOLI, L. & MASTROIA-COVO, P. (introduced by WILSON, C.W.M.) Vitamin C in the plasma and in the leukocytes of Italians in different periods of the year

- 497P KIRKPATRICK, C.T. (introduced by SCHOLFIELD, C.N.) A microcomputer-based signal acquisition system suitable for use in the pharmacological and physiological laboratory
- 497P HEMSWORTH, B.A. & STREET, J.A. The binding of [3H]-noradrenaline and [14C]-propranolol to synaptosomal fractions of rat brain homogenates
- 498P HEMSWORTH, B.A., SHREEVE, S.M. & VEITCH, G.B.A. The neuromuscular blocking action of some cyclic analogues of choline
- 501P TOMLINSON, D.R. A card and board game to reinforce learning of elementary clinical pharmacology
- 501P BRADLEY, J.R., FAYLE, R.J.S., HARMSWORTH, N.J., KAYANI, J.A., LOCKETT, W.I., MONTGO-MERY, S.C., SHORT, A.H., TRIMBLE, I.M.G. & WILSON, C.G. Student-constructed hydraulic and mechanical models for learning fundamentals of pharmacokinetics
- 502P JOHNSON, F. & WILSON, C.G. A microprocessorbased simulator for teaching pharmacokinetics
- 503P BENNETT, T., MARSDEN, C.A., SHORT, A.H. & TOMLINSON, D.R. True/false units of assessment in physiology and pharmacology

- 503P FOY, J.M. Diuretic testing
- 504P LEACH, G.D.H. Laboratory demonstration of drug responses using the videograph recording system
- 504P IRVING, G. The effects of autonomic drugs in mice
- 504P BOTTING, REGINA M. & TUFFERY, A.A. Audiovisual teaching material used on courses for new Home Office Licensees
- 504P HEYWOOD, J. (introduced by WILSON, C.W.M.) The implications of microprocessors for the curriculum in pharmacology
- 504P CANNON, P.J. & O'CONNELL, C. Autonomic outflow stimulation at different spinal cord levels and the resulting cardiovascular, gut and bladder responses in the frog
- 505P CANNON, P.J., GILNA, P. & O'CONNELL, C. A method of illustrating changes in acid secretion and motility in the rat exteriorized stomach
- 506P CANNON, P.J., MULVIHILL, T.P. & MURPHY, P. Further electronic evolution of the Palmer Kymograph
- 506P CANNON, P.J., MONKS, R. & MURPHY, P. Transducer-adapted Benedict Roth Spirometer for small animals

# **VOLUME 67 NUMBER 4 DECEMBER 1979**

### **PAPERS**

- 511 HARPER, BARBARA & HUGHES, I.E. Presynaptic α-adrenoceptor blocking properties among tri- and tetra-cyclic antidepressant drugs
- 519 JOSE, P.J. & SEALE, J.P. Incorporation and metabolism of [14C]-arachidonic acid in guineapig lungs
- 527 WALKER, R. & WILSON, KEITH A. Prostaglandins and the contractile action of bradykinin on the longitudinal muscle of rat isolated ileum
- 535 McCULLOCH, M.W., MEDGETT, I.C. & RAND, M.J. Effects of the histamine H<sub>2</sub>-receptor blocking drugs burimamide and cimetidine on noradrenergic transmission in the isolated aorta of the rabbit and atria of the guinea-pig
- 545 STONE, TREVOR W. Amino acids as neurotransmitters of corticofugal neurones in the rat: a comparison of glutamate and aspartate
- 553 BRINE, F., CORNISH, E.J. & MILLER, R.C. Effects of uptake inhibitors on responses of sheep coronary arteries to catecholamines and sympathetic nerve stimulation
- ASSUMPÇÃO, J.A., BERNARDI, N., BROWN, J.
   & STONE, T.W. Selective antagonism by benzo-

- diazepines of neuronal responses to excitatory amino acids in the cerebral cortex
- 569 DIXON, M., JACKSON, D.M. & RICHARDS, I.M. The effects of sodium cromoglycate on lung irritant receptors and left ventricular cardiac receptors in the anaesthetized dog
- 575 BISSET, G.W., CHOWDREY, H.S., HOPE, B.B., NILWISES, N. & WÄLTI, M. Hydroxy analogues of oxytocin and of lysine-vasopressin
- 587 SAKAI, K. A pharmacological analysis of the contractile action of histamine upon the ileal region of the isolated blood-perfused small intestine of the
- 591 EVANS, R.H., FRANCIS, A.A., HUNT, K., OAKES, D.J. & WATKINS, J.C. Antagonism of excitatory amino acid-induced responses and of synaptic excitation in the isolated spinal cord of the frog
- 605 COX, B. & LEE, T.F. Evidence for an endogenous dopamine-mediated hypothermia in the rat
- 611 BIGON, E., BOARATO, E., BRUNI. A., LEON. A. & TOFFANO, G. Pharmacological effects of phosphatidylserine liposomes: the role of lysophosphatidylserine