Edited for the British Pharmacological Society by

W. D. M. Paton (Chairman) H. M. Adam (Secretary)
P. A. Nasmyth (Press Editor)
Jennifer Maclagan (Assistant Press Editor)

G. W. Ashcroft (co-opted) D. B. Hope R. B. Barlow H. W. Kosterlitz J. M. Barnes G. P. Lewis J. W. Black R. D. Lowe W. C. Bowman J. Maddox P. B. Bradley J. F. Mitchell A. W. Cuthbert M. W. Parkes C. T. Dollery Mary Pickford W. S. Feldberg H. P. Rang D. F. Hawkins H. O. Schild F. Hobbiger D. F. Sharman J. R. Hodges Hannah Steinberg Margarethe Holzbauer F. M. Sullivan

J. R. Vane

Editorial assistance is provided by the staff of Nature

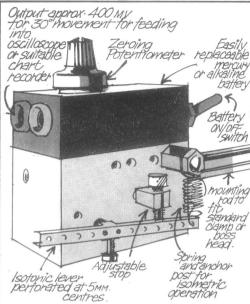
Papers will be considered for publication on all aspects of drug action, including chemotherapy.

Manuscripts (two copies) should be sent to Dr. H. M. Adam, Department of Pharmacology, University of Edinburgh Medical School, 1 George Square, Edinburgh EH8 9JZ. Authors should consult the suggestions inside the back cover.

Subscriptions. Three volumes of the journal are published annually, each volume containing four numbers. The annual subscription rate is £18.50 in the United Kingdom and Republic of Ireland; \$55.50 U.S.A. and Canada (by air freight; second class postage paid at New York, N.Y.); £18.50 all other overseas countries. Subscriptions should be sent to: Subscriptions Department, Macmillan Journals Ltd., Brunel Road, Basingstoke, Hampshire, England. Alternatively, the journal can be ordered through a subscription agent or bookseller.

Advertisements: Applications for advertising space and rates should be sent to: J. Ashley-Brown, Advertisement Manager, British Journal of Pharmacology, Macmillan Journals Ltd., 4 Little Essex Street, London, WC2R 3LF, England. Tel: 01-836 6633. Direct line: 01-405 3013.

Copyright © 1971 by the *British Journal of Pharmacology*. All rights of reproduction are reserved in respect of all papers, articles, illustrations, etc., published in this journal in all countries of the world.



To record muscle reaction THE PALMER ISOTONIC TRANSDUCER

A very low torque transducer fitted with a small lever which has holes at 5mm pitch on either side of its fulcrum and moves a graduated vane between a miniature lamp and a phototransistor. The unit can be clamped to any sturdy laboratory stand and is operated by an easily replaceable mercury or alkaline battery. Its operation is identical to that of the Kymograph muscle lever used in classic nerve/muscle experiments.

For isometric operation, a spring and anchor post are supplied.

Send coupon today for full specification and price details.

C		F		P	A	L	V	E	R	(L	0	N	0	0	N)	I.	١.,	
1	_		_																	

Lane End Road, High Wycombe, Bucks. Tel: High Wycombe 21124

Please send me further particulars of your ISOTONIC TRANSDUCER

Name_______Position Held______

Address

BRITISH JOURNAL OF PHARMACOLOGY

Short Communications

Papers for consideration should be marked "Short Communication", and be submitted in duplicate to the Secretary of the Editorial Board. Thev must be less than 1,200 words in length and may contain one figure or one table. To reduce publication delay to a minimum (about 6 weeks), correspondence between author and editor must be avoided. Manuscripts should therefore be prepared with great care and the customary form used in the Journal strictly observed (see instructions on the inside cover of a recent issue of the Journal). Short Communications will be accepted on the understanding that if authors' proofs are not returned before the journal goes to press, the Communication will be published with the Press Editor's corrections only. Communications not accepted for publication will be returned in approximately 2 weeks.

INDEX TO VOLUME 43

AUTHOR INDEX

ALLEN, J. G., CALNE, D. B., DAVIES, C. A. and REID, J. L. Relationship of plasma concentrations of levodopa to clinical response in

Parkinsonism, 464P
Anden, N.-E. and Fuxe, K. A new dopamine-βhydroxylase inhibitor: effects on the noradrenaline concentration and on the action

of L-dopa in the spinal cord, 747
ARBAB, A. G. and TURNER, P. Influence of pH on absorption of thymoxamine through buccal mucosa in man, 479P

Austin, Marilyn. See Fitzgerald, J. D., 222

BACHUR, N. R. and HUFFMAN, D. H. Dauno-rubicin metabolism: estimation of dauno-rubicin reductase, 828

BADOLA, R. P., BHARGAVA, K. P., DIXIT, K. S. and RATRA, C. K. Role of the chemoreceptor trigger zone in cyclopropane induced emesis in dogs, 248

BAINBRIDGE, PENELOPE A., BURDEN, D. T. and Parkes, M. W. Attempt to assess the selectivity of β -adrenoceptive blocking agents towards the effects of electrical stimulation of the spinal cord on different organs, 452P
BAKHLE, Y. S. Inhibition of angiotensin I con-

verting enzyme by venom peptides, 252

BARAR, F. S. K., BOAKES, A. J., BENEDIKTER, L. B.,
LAURENCE, D. R., PRICHARD, B. N. C. and
TEOH, P. C. Interactions between catecholamines and tricyclic and monoamine oxidase

inhibitor antidepressive agents in man, 472P
BARBER, H. E. and BOURNE, G. R. Determination
of the renal clearance of inulin in rats: lowered values at low urine flow rates, 874
BEDWANI, J. R. and HORTON, E. W. Interaction

between prostaglandins and gonadotrophins in the rabbit ovary, 794

BEGENT, NICOLA A. and BORN, G. V. R. Comparison of the effects of drugs on the aggregation of hamster platelets in vivo and in vitro,

BEILIN, L. J. and ZAIKUS, G. Vascular reactivity

in 'post-DOCA' hypertension, 427P
BENEDIKTER, L. B. See BARAR, F. S. K., 472P
BENFEY, B. G. Lack of relationship between myocardial cyclic AMP concentrations and inotropic effects of sympathomimetic amines,

BENNETT, T., COBB, J. L. S. and MALMFORS, T. Differential effects of 6-hydroxydopamine on

the terminals and non-terminal axons of adrenergic neurones, 445P

BHAGAT, B. and RANA, M. W. Effect of chronic administration of nicotine on the concentrations of the concentration of the concentra tions of adrenal enzymes involved in the

synthesis and metabolism of adrenaline, 250
BHAGAT, B., BURKE, W. J. and DAVIS, J. W.
Effect of reserpine on the activity of adrenal enzymes involved in the synthesis of adrenaline, 819

BHARGAVA, K. P. See BADOLA, R. P., 248

BHOOLA, K. D. and DOREY, GUNDULA. Kallikrein, trypsin-like proteases and amylase in mam-

malian submaxillary glands, 784

BLAKELEY, A. G. H., Powis, G. and Summers,
R. J. Effect of the monoamine oxidase
inhibitor pargyline on the uptake of labelled

noradrenaline by the cat's spleen, 451P Blum, K., Geller, I. and Wallace, J. E. Interaction effects of ethanol and pyrazole in

action effects of ethanol and pyrazole in laboratory rodents, 67

Boakes, A. J. See Barar, F. S. K., 472P

Boakes, R. J., Bradley, P. B. and Candy, J. J. Supersensitivity of central noradrenaline receptors after reserpine, 443P

Bonta, I. L., De Vos, C. J., Grusen, H., Hillen, F. C., Noach, E. L. and Sim, A. W. 1-Hydroxy-3-amino-pyrolidone-2 (HA-966): a page GAPA like compound with potential new GABA-like compound with potential use in extrapyramidal diseases, 514

Boobis, A. R. and Pollock, D. Influence of phenobarbitone on liver regeneration and microsomal N-demethylating activity in par-tially hepatectomized rats, 458P

BORN, G. V. R. See BEGENT, NICOLA A., 580

BOURNE, G. R. See BARBER, H. E., 874
BRADLEY, P. B. See BOAKES, R. J., 443P
BRADSHAW, C. M., ROBERTS, M. H. T. and
SZABADI, E. Effect of mescaline on single

cortical neurones, 871

Breese, G. R. and Howard, J. L. Effect of central catecholamine alterations on the hypothermic response to 6-hydroxydopamine in desipramine treated rats, 671

Breese, G. R., Howard, J. L. and Leahy, J. P. Effect of 6-hydroxydopamine on electrical self stimulation of the brain, 255

Briant, R. H., Dollery, C. T., Fenyvesi, T. and George, C. F. Pharmacology of M & B 17893A in man and dog, 468P

BRUINVELS, J. and KEMPER, G. C. M. Role of noradrenaline and 5-hydroxytryptamine in tetrahydronaphthylamine-induced temperature changes in the rat, 1

BURDEN, D. T. See BAINBRIDGE, PENELOPE A., 452P

BURDOCK, MARIE, MORLEY, J. and WILLIAMS, T. J. Photometric method for the measurement of cell migration inhibition, 475P

BURKE W. J. See BHAGAT, B., 819
BURNSTOCK, G., McLean, J. R. and WRIGHT,
MARY. Noradrenaline uptake by noninnervated smooth muscle, 180

BURNSTOCK, G., EVANS, BARBARA, GANNON, B. J., HEATH, J. W. and JAMES, VICKI. A new method of destroying adrenergic nerves in adult animals using guanethidine, 295

CALNE, D. B. See ALLEN, J. G., 464P CAMPBELL, D. B. Plasma concentrations of fenfluramine and its metabolite, norfenfluramine, after single and repeated oral administration, 465P

CANDY, J. M. See BOAKES, R. J., 443P

CASTEELS, R., HENDRICKX, H. and VEREECKEN, R. Effects of catecholamines on the electrical and mechanical activity of the guinea-pig ureter, 429P

CHALMERS, J. P., DAVIES, D. S., DRAFFAN, G. H., REID, J. L. and THORGEIRSSON, S. S.

methylation of 3-O-methyldopa, 455P
CHERNOFF, N. and GRABOWSKI, C. T. Responses
of the rat foetus to maternal injections of adrenaline and vasopressin, 270

CHIBA, S., HASHIMOTO, K., KUBOTA, K. and SATOH, S. Blocking effect of McN-A-343 on cardiac slowing produced by vagal stimulation, 675

CHRISTIE, JANICE, and CROW, T. J. Turning behaviour as an index of the action of Turning amphetamines and ephedrines on central dopamine-containing neurones, 658

CHYLINSKA, J. B., JANOWIEC, M. and URBANSKI, T. Antibacterial activity of dihydro-1,3-oxazine derivatives condensed with aromatic rings in positions 5,6, 649

COBB, J. L. S. See BENNETT, T., 445P

COHEN, J. L., JAO, J. Y. and JUSKO, W. J. Pharma-cokinetics of cyclophosphamide in man, 677

COLTART, D. J., LOCKHART, J. D. F., ROYDS, R. B. and TURNER, P. Human pharmacology of indoramin, 467P

CONKLIN, J. D. and WAGNER, D. L. Excretion of nitrofurantoin in dog hepatic bile, 140

CONOLLY, M. E., DAVIES, D. S., DOLLERY, C. T. and George, C. F. Resistance to β -adrenoceptor stimulants (a possible explanation for the rise in asthma deaths), 389

CONSTANTINIDIS, J., GAILLARD, J. M., GEISS-BUHLER, F. and TISSOT, R. Passage into the rat brain of dopa and dopamine injected into the lateral ventricle, 32

Cook, D. A. Blockade by phenoxybenzamine of the contractor response produced by agonists in the isolated ileum of the guinea-pig, 197

COSTA, E., NAIMZADA, K. M. and REVUELTA, A. Effect of phenmetrazine, aminorex and (\pm) p-chloramphetamine on the motor activity and turnover rate of brain catecholamines, 570

COTTRELL, G. A. Action of imipramine on 5-hydroxytryptaminergic transmission and on 5-hydroxytryptamine uptake in the snail (Helix pomatia) brain, 437P

Cowan, A. and Cowan, P. Automatic recording of the mouse abstinence syndrome, 477P

COWAN, A., LEWIS, J. W. and MACFARLANE, I. R. Analgesic and dependence studies with oripavine partial agonists, 461P
Cowan, P. See Cowan, A., 477P
Crow, T. J. and Grove-White, I. G. Differential

effect of atropine and hyoscine on human learning capacity, 464P

Crow, T. J. See Christie, Janice, 658 Curzon, G. and Green, A. R. Regional and subcellular changes in the concentration of 5-hydroxytryptamine and 5-hydroxyindole-acetic acid in the rat brain caused by hydrocortisone, DL-a-methyl tryptophan, L-kyure-

nine and immobilization, 39
CUTHBERT, A. W., INDI, P. W. and WONG, P. Y. D.
Increased concentrations of cyclic 3',5'adenosine monophosphate without a physiological response after antidiuretic hormone,

CUTHBERT, A. W. and WONG, P. Y. D. The amiloride receptor, 416P

CUTHBERT, M. F. and OWUSU-ANKOMAH, K. Effect of M & B 17803A, a new β -adrenoceptor blocking agent, on the cardiovascular responses to tilting and to isoprenaline in man, 639

CUTHBERT, M. F. and VERE, D. W. Potentiation of the cardiovascular effects of some catecholamines by a monoamine oxidase inhibitor, 471P

D

DALY, M. J., FARMER, J. B. and LEVY, G. P. Comparison of the bronchodilator and cardiovascular actions of salbutamol, iso-prenaline and orciprenaline in guinea-pigs and dogs, 624

D'ARCY HART, P. and PAYNE, SHEILA N. Effects of non-ionic surfactants that modify experimental tuberculosis on lipase activity of

macrophages, 190

Davies, C. A. See Allen, J. G., 464P Davies, D. S. See Chalmers, J. P., 455P Davies, D. S. See Conolly, M. E., 389

DAVIS, J. W. See BHAGAT, B., 819
DE VOS, C. J. See BONTA, I. L., 514
DHAWAN, B. N. and DUA, P. R. Evidence for the

presence of a-adrenoceptors in the central thermoregulatory mechanism of rabbits, 497

DIXIT, K. S. See BADOLA, R. P., 248
DOLLERY, C. T. See BRIANT, R. H., 468P
DOLLERY, C. T. See CONOLLY, M. E., 389

DONAHUE, J. D., JOHNSON, R. K. and JONDORF, W. R. Comparison of effects exerted by isomers and analogues of (\pm) -2,3-dehydroemetine on protein synthesis in rat liver, 456P

DOREY, GUNDULA. See BHOOLA, K. D., 784
DOW, R. C., PARK, JUDITH K., PRYOR, HELEN M.
and TOWNSEND, H. R. A. Method for the
production and detection of epileptogenic lesions in rat cerebral cortex, 478P Draffan, G. H. See Chalmers, J. P., 455P

Dua, P. R. See Dhawan, B. N., 497

EISEN, V. and LOVEDAY, C. Non-traumatic blood collection from rat tail vessels. Application in Mycoplasma arthritidis, 475P

ELIASH, SARAH and WEINSTOCK, MARTA. Role of adrenergic neurone blockade in the hypotensive action of propranolol, 287

ENGBERG-PEDERSEN, H. See GÜTTLER, F., 151

EVANS, BARBARA. See BURNSTOCK, G., 295
EVANS, D. P., HOSSACK, MARGARET and THOMSON, D. S. Inhibition of contact sensitivity in the mouse by topical application of corticosteroids, 403

Evans, Marion E., Paterson, J. W., Richards, A. J. and WALKER, S. R. Pharmacokinetics of inhaled salbutamol in asthmatic patients,

EVANS, M. H. Comparison of the actions of saxitoxin and tetrodotoxin on the motor end-plate of frog muscle, 681

Evans, R. H. Accumulation of calcium at the motor end-plate, 433P

EYRE, P. Pharmacology of bovine pulmonary vein anaphylaxis in vitro, 302

FARA, J. S. Escape from tension induced by noradrenaline or electrical stimulation in isolated mesenteric arteries, 865

- FARMER, J. B. See DALY, M. J., 624
- FARNEBO, L.-O. and HAMBERGER, B. Drug-induced changes in the release of [3H]noradrenaline from field stimulated rat iris,
- FELDBERG, W. and SAXENA, P. N. Effects of adrenoceptor blocking agents on body temperature, 543

- FENYVESI, T. See BRIANT, R. H., 468P FERREIRA, S. H. and MONCADA, S. Inhibition of prostaglandin synthesis augments the effects of sympathetic nerve stimulation on the cat spleen, 419P
- FERRY, C. B. and MARSHALL, A. R. Action of edrophonium on acetylcholinesterase at the
- mammalian neuromuscular junction, 435P
 FEUERSTEIN, GIORA and GUTMAN, YEHUDA.
 Preferential secretion of adrenaline or noradrenaline by the cat adrenal in vivo in response to different stimuli, 764

FEWTRELL, CLARE and RANG, H. P. Distribution of bound ³H-benzilylcholine mustard in subcellular fractions of smooth muscle from

guinea-pig ileum, 417P

FITZGERALD, J. D. and O'DONNELL, STELLA R. (with the technical assistance of Austin, Pharmacology of 4-hydroxy-MARILYN). propranolol, a metabolite of propranolol, 222

FOSTER, R. W. and O'DONNELL, S. Evidence for an active uptake of noradrenaline in the guinea-pig isolated trachea, 450P

Fozard, J. R. and Muscholl, E. Effects of several muscarinic agonists on cardiac performance and the release of noradrenaline from the sympathetic nerves of the rabbit

heart, 454P
Fuxe, K. See Anden, N.-E., 747
Fuzzey, G. J. J., Hope, C. E. and Payne, J. P. Effect of practolol on limb blood flow in anaesthetized patients with cardiac dysrhythmias, 469P

- GAGNON, D., PARK, W. K. and REGOLI, D. Specific antagonists for the myotropic action of angiotensin II and angiotensin I on the isolated rat colon, 409
- GAILLARD, J. M. See CONSTANTINIDIS, J., 32
- GANNON, B. J. See BURNSTOCK, G., 295 GEISSBUHLER, F. See CONSTANTINIDIS, J., 32

GELLER, I. See BLUM, K., 67 GEORGE, C. F. See BRIANT, R. H., 468P

- GEORGE, C. F. See CONOLLY, M. E., 389
 GILLESPIE, J. S. The rat anococcygeus: a new densely innervated smooth muscle preparation, 430P
- GINSBORG, B. L. and HIRST, G. D. S. Theophylline and adenosine at the neuromuscular junction, 432P
- GINSBURG, M., MACLUSKY, N. J., MORRIS, I. D. and THOMAS, P. J. Oestradiol binding in hypothalamic cytosol, 422P
- GINSBURG, SARA, KITZ, R. J. and SAVARESE, J. J. Neuromuscular blocking activity of a new series of quaternary N-substituted choline esters, 107
- GOODE, P. G. and WHITE, A. C. Some properties of WY 22811, a new analgesic compound, 462P
- GORIDIS, C. and NEFF, N. H. Monoamine oxidase in sympathetic nerves: a transmitter specific enzyme type, 814

GRABOWSKI, C. T. See CHERNOFF, N., 270 GRAHAM, J. D. P., IVENS, CAROLINE, JOO, F., LEVER, J. D., MOTTRAM, D. R. and SPRIGGS, T. L. B. ³H-Noradrenaline-accumulating ability of cholinergic nerve terminals in cat sympathetic ganglia, 555

GRAHAME-SMITH, D. G. Inhibitory effect of chlorpromazine on the syndrome of hyperactivity produced by L-tryptophan 5-methoxy-N,N-dimethyltryptamine in rats treated with a monoamine oxidase inhibitor, 856

GRAYSON, M. F., SMITH, A. J. and SMITH, R. N. Absorption, distribution and elimination of ¹⁴C-amiloride in normal human subjects, 473P

GREEN, A. L. and MARSHALL, I. G. Nicotinic stimulant action of some tolyl and xylyl analogues of 1,1-dimethyl-4-phenylpipera-zinium (DMPP), 370

GREEN, A. R. See CURZON, G., 39 GREENWAY, C. V. and MURTHY, V. S. Mesenteric vasoconstriction after endotoxin administra-tion in cats pretreated with aspirin, 259

GRIJSEN, H. See BONTA, I. L., 514

GROVE-WHITE, I. G. See Crow, T. J., 464P GRYGLEWSKI, R. and VANE, J. R. Rabbit aorta contracting substance (RCS) may be a prostaglandin precursor, 420P

GUTMAN, YEHUDA. See FEUERSTEIN, GIORA, 764 GÜTTLER, F. and TYBRING, L. Interaction Interaction of albumin and fusidic acid (with appendix on interaction of albumin and fusidic acid by ENGBERG-PEDERSEN, H.), 151

Н

HALLIDAY, J. and Moir, A. T. B. Effect of drugs used in status-epilepticus on the potassium fluxes of cerebrospinal fluid in the conscious dog, 448P

HAMBERGER, B. See FARNEBO, L.-O., 97 HARRY, J. D., LINDEN, R. J. and SNOW, H. M. Effects of β -adrenoreceptor blocking drugs on

isolated skeletal and cardiac muscle, 453P HASHIMOTO, K., SATOH, S. and TAKEUCHI, O. Effect of dopamine on pancreatic secretion in

the dog, 739

HASHIMOTO, K. See CHIBA, S., 675

HAYES, J. and QUINTON, R. M. Routine assessment of drug-related induction of liver microsomal enzymes during toxicity trials in animals, 478P

HEATH, J. W. See BURNSTOCK, G., 295
HENDERSON, G. Effect of monoamine oxidase
(MAO) inhibition upon the N, P and LN potentials of the rabbit superior cervical ganglia, 436P

HENDRICKX, H. See CASTEELS, R., 429P HILLEN, F. C. See BONTA, I. L., 514 HIRST, G. D. S. See GINSBORG, B. L., 432P

HOBBIGER, F. and PECK, A. W. Relative importance of the enzymic hydrolysis of suxamethonium in plasma and tissues: studies in cats, 341

HODGES, J. R. and MITCHLEY, SUSAN. Effect of prolonged treatment with tetracosactrin on hypothalamo-pituitary-adrenal function in the rat, 804

HOLMAN, R. B., SHILLITO, ELIZABETH E. and VOGT, MARTHE. Sleep produced by clonidine (2-(2,6-dichlorophenylamino)-2-imidazoline hydrochloride), 685

HOLZBAUER, MARGARETHE. In vivo production of steroids with central depressant actions by by ovary of the rat, 560 HOPE, C. E. See FUZZEY, G. J. J., 469P HORTON, E. W. See BEDWANI, J. R., 794 Hossack, Margaret. See Evans, D. P., 403 HOWARD, J. L. See Breese, G. R., 255 HOWARD, J. L. See BREESE, G. R., 671
HUFFMAN, D. H. See BACHUR, N. R., 828
HUTCHINS, D. A. and ROGERS, K. J. Effect of receptor blocking drugs on the depletion of brain glycogen by amphetamine, 504

INDI, P. W. See CUTHBERT, A. W., 881 IVENS, CAROLINE. See GRAHAM, J. D. P., 555 IVERSEN, L. L., JARROTT, B. and SIMMONDS, M. A. Differences in the uptake, storage and metabolism of (+)- and (-)-noradrenaline, 845

James, Vicki. See Burnstock, G., 295 Janowiec, M. See Chylinska, J. B., 649 Jao, J. Y. See Cohen, J. L., 677 JARROTT, B. See IVERSEN, L. L., 845 JHAMANDAS, K., PHILLIS, J. W. and PINSKY, C. Effects of narcotic analgesics and antagonists on the in vivo release of acetylcholine from the cerebral cortex of the cat, 53

JOHNSON, R. K. See DONAHUE, J. D., 456P JOHNSON, SHEENA and MILLER, K. W. Effect of general anaesthetics on the permeability of single bilayer phospholipid vesicles and the antagonism of high pressure (T), 482P

JONDORF, W. R. See DONAHUE, J. D., 456P JONES, MARGARET E. L. and SPRIGGS, T. L. B. Pharmacological observations on the vas

deferens of the mouse, 430P
Joo, F. See Graham, J. D. P., 555
JORDAN, C. C. and Webster, R. A. Release of

acetylcholine and 14C-glycine from the cat spinal cord in vivo, 441P

JUORIO, A. V. and MOLINOFF, P. B. Distribution of octopamine in nervous tissues of Octopus vulgaris, 438P Jusko, W. J. See Cohen, J. L., 677

Mechanism of potentiation of KALSNER, S. contractor responses to catecholamines by methylanthines in aortic strips, 379

KEMPER, G. C. M. See BRUINVELS, J., 1

KENNEDY, BARBARA L., NOOKHWUN, CHONGKOL, SADAVONGVIVAD, CHIRAVAT and TANCHAJJA, Inotropic actions of lignocaine and phenytoin, 483

KERKUT, G. A. and TABERNER, P. V. Hypnogenic properties of succinic semialdehyde and its fatty acid derivatives, 439P

KIRPEKAR, S. M. and PUIG, MARGARITA. Effect of flow-stop on noradrenaline release from normal spleens and spleens treated with cocaine, phentolamine or phenoxybenzamine,

KIRPEKAR, S. M., and YAMAMOTO, H. Release of noradrenaline and dopamine by nerve stimulation in the cat spleen perfused with ³H-dopamine, 86.

KITZ, R. J. See GINSBURG, SARA, 107 KLAASSEN, C. D. Biliary excretion of barbiturates, 161

Knowles, B. R., Lucas, S. B., Mawer, G. E., Stirland, R. M. and Tooth, J. A. Use of a digital computer programme as a guide to the prescribing of kanamycin in patients with renal insufficiency, 481P

KOBAYASHI, Y. and MAUDSLEY, D. V. Inhibition of histidine decarboxylase in rat stomach by

aminoguanidine, 426P

KOFI EKUE, J. M., SHANKS, R. G. and ZAIDI, S. A. Comparison of the effects of isoprenaline, orciprenaline, salbutamol and isoetharine on the cardiovascular system of anaesthetized dogs, 23

KOSTERLITZ, H. W. and LYDON, R. J. Impulse transmission in the myenteric plexus-longitudinal muscle preparation of the guinea-pig

ileum, 74.

Krip, G. and Vázquez, J. Effects of some sympathomimetic drugs and their antagonists on afterdischarges elicited in chronically isolated slabs of cerebral cortex, 696.

KUBOTA, K. See CHIBA, S., 675 KURAHASHI, K. and SHIBATA, S. **Bretylium** potentiation of the contractor responses of isolated rabbit aortic strips to potassium and tyramine, 210

LAITY, J. L. H. and WHITTAKER, M. Neuromuscular actions of lignocaine and prilocaine

LAURENCE, D. R. See BARAR, F. S. K., 472P LEAHY, J. P. See Breese, G. R., 255

LEONARD, B. E. and SHALLICE, SUSAN A. Effect of p-nitromethylamphetamine on biogenic amines and their amino-acid precursors in

rat brain, 732
LE SERVE, A. W. Vascular changes in tumours after treatment with ICRF 159, 457P LEVER, J. D. See GRAHAM, J. D. P., 555

LEVY, B. and LINDNER, H. R. Selective blockade of the vasodepressor response to prostaglandin $F_{2\alpha}$ in the anaesthetized rabbit, 236 LEVY, G. P. See DALY, M. J., 624

Lewis, G. P. and WAWRETSCHEK, W. A. Effect of thermal injury on the kinin system in rabbit hind limb lymph, 127

Lewis, J. W. See Cowan, A., 461P LINDEN, R. J. See HARRY, J. D., 453P

LINDNER, H. R. See LEVY, B., 236 LIVETT, B. G. and PARRY, H. B. Accumulation of neurophysin in the median eminence and the cerebellum of sheep with natural scrapie, 423P

LOCKHART, J. D. F. See COLTART, D. J., 467P LOVEDAY, C. See EISEN, V., 475P

Lucas, S. B. See Knowles, B. R., 481P Lydon, R. J. See Kosterlitz, H. W., 74

М

MADAN, B. R. Effect of glucagon on ventricular arrhythmias after coronary artery occlusion and on ventricular automaticity in the dog, 279

MALIK, K. U., and McGIFF, J. C. Modification by choline of adrenergic transmission in rat mesenteric arteries, 776

MALMFORS, T. See BENNETT, T., 445P

MARSHALL, A. R. See FERRY, C. B., 435P MASSINGHAM, R. and SHEVDE, S. Aortic reactivity and electrophysiology in normotensive rats, spontaneously hypertensive rats and rats made hypertensive with desoxycorticosterone plus salt, 868

MARSHALL, I. G. See GREEN, A. L., 370 Maudsley, D. V. See Kobayashi, Y., 426P MAWER, G. E. See KNOWLES, B. R., 481P MILLER, K. W. See JOHNSON, SHEENA, 482P MILLER, K. W., PATON, W. D. M., SMITH, E. B. and SMITH, R. A. Pressure reversal of anaesthesia (T), 482P MILTON, A. S. and PATERSON, ANNA T. Micro-

injection study of the role of adrenergic transmission in the control of the secretion of anti-

diuretic hormone, 444P

MITCHLEY, SUSAN. See HODGES, J. R. 804 MITTAG, T. W. and TORMAY, ANNE. Effects of isoxazolium cations on some isolated muscle preparations, 604

Moir, A. T. B. Interaction in the cerebral metabolism of the biogenic amines: effect of intravenous infusion of L-tryptophan on the metabolism of dopamine and 5-hydroxy-indoles in brain and cerebrospinal fluid, 715

Moir, A. T. B. Interaction in the cerebral metabolism of the biogenic amines: effect of intravenous infusion of L-tryptophan on tryptophan and tyrosine in brain and body fluids, 724

Moir, A. T. B. See Halliday, J., 448P Molinoff, P. B. See Juorio, A. V., 438P Moncada, S. See Ferreira, S. H., 419P Morley, J. See Burdock, Marie, 475P MORRIS, I. D. See GINSBURG, M., 422P MOTTRAM, D. R. See GRAHAM, J. D. P., 555 MURTHY, V. S. See GREENWAY, C. V., 259 MUSCHOLL, E. See FOZARD, J. R., 454P

McCormick, J. T. and Senior, Judith. Effect of sex hormones on the concentrations of plasma kininogen in the female rat, 421P

MACFARLANE, I. R. See Cowan, A., 461P McGiff, J. C. See Malik, K. U., 776 McLean, J. R. See Burnstock, G., 180 Maclusky, N. J. See Ginsburg, M., 422P

McQueen, D. S. and Ungar, A. Can drugs replace hypoxic drive in respiratory depression?

McQueen, E. G. and Wardell, W. M. Drug displacement from protein binding: isolation of a redistributional drug interaction in vivo, 312

NAIMZADA, K. M. See COSTA, E., 570 NEAL, M. J. and WHITE, R. D. Uptake of ¹⁴C-L-glutamate by rat retina, 442P NEAT, MARIAN L. and PEACOCK, R. Implantation

of electrodes in the dentine of an upper canine tooth in the dog, 476P

NEFF, N. H. See GORIDIS, C., 814 NICHOLLS, P. J. and ORTON, T. C. Absorption, distribution and excretion of methsuximide in male_rats, 459P

NOACH, E. L. See BONTA, I. L., 514 NOOKHWUN, CHONGKOL. See KENNEDY, BARBARA L., 483

O'DONNELL, S. See FOSTER, R. W., 450P O'DONNELL, STELLA. See FITZGERALD, J. D., 222 OLATUNDE, I. A. Chloroquine concentrations in the skin of rabbits and man, 335

O'REILLY, W. J., PITT, PATRICIA A. and RYAN, A. J. Pharmacokinetic model for the successive demethylation and biliary secretion of methyl orange in the rat, 167

ORMEROD, L. P. and WESTON, A. H. Adrenoceptors in the guinea-pig colon, 411 ORTON, T. G. See NICHOLLS, P. J., 459P

Отт, H. and Sмітн, G. M. Anti-thrombotic of a benzo(c)(1,6)naphthyridine, activity 460P

OWEN, D. A. A. Responses to pressor substances in conscious and anaesthetized rats, 668 OWUSU-ANKOMAH, K. See CUTHBERT, M. F., 639

PARK, JUDITH K. See Dow, R. C., 478P PARK, W. K. and REGOLI, D. Specific inhibitors for angiotensin II and angiotensin I, 418P Park, W. K. See Gagnon, D., 409 PARKES, M. W. See BAINBRIDGE, PENELOPE A.,

PARRATT, J. R., and WINSLOW, EILEEN. Actions of quazodine (MJ1988) on smooth muscle,

PARRY, H. B. See LIVETT, B. G., 423P PATERSON, ANNA T. See MILTON, A. S., 444P PATERSON, J. W. See EVANS, MARION E., 466P PATON, W. D. M. and PERTWEE, R. G. Pharmacology of cannabis: catalepsy; hypothermia: inhibition of drug metabolism (T), 482P PATON, W. D. M. See MILLER, K. W., 482P PAYNE, J. P. See FUZZEY, G. J. J., 469P PAYNE, SHELLA N. See D'ARCY HART, P., 190 PAYNE, SHEILA N. See D'ARCY HART, F., 15 PEACOCK, R. See NEAT, MARIAN L., 476P PECK, A. W. See HOBBIGER, F., 341 PERTWEE, R. G. See PATON, W. D. M., 482P PHILLIS, J. W. See JHAMANDAS, K., 53 PINSKY, C. See JHAMANDAS, K., 53 PITT, PATRICIA, A. See O'REILLY, W. J., 167 PLEUVRY, BARBARA J. and Tobias, M. A. Comparison of the antinociceptive activities of physostigmine, oxotremorine and morphine in the mouse, 706

POLLOCK, D. See BOOBIS, A. R., 458P Powis, G. See Blakeley, A. G. H., 451P PRICHARD, B. N. C. See BARAR, F. S. K., 472P PRYOR, HELEN M. See DOW, R. C., 478P PUIG, MARGARITA. See KIRPEKAR, S. M., 359

QUINTON, R. M. See HAYES, J., 478P

RANA, M. W. See BHAGAT, B., 250 RAND, M. J. and VARMA, B. Effects of the muscarinic agonist McN-A-343 on responses to sympathetic nerve stimulation in the rabbit ear artery, 536 RANG, H. P. See FEWTRELL, CLARE, 417P RATRA, C. K. See BADOLA, R. P., 248 REGOLI, D. See GAGNON, D., 409 REGOLI, D. See PARK, W. K., 418P REID, J. L. See ALLEN, J. G., 464P Reid, J. L. See Chalmers, J. P., 455P REILLY, MARGARET A., and SCHAYER, R. W. Further studies on histamine catabolism in vivo, 349 REVUELTA, A. See COSTA, E., 570 RICHARDS, A. J. See EVANS, MARION E., 466P ROBERTS, M. H. T. See Bradshaw, C. M., 871 ROGERS, K. J. See HUTCHINS, D. A., 504 ROYDS, R. B. See COLTART, D. J., 467P

RYAN, A. J. See O'REILLY, W. J., 167

SACKEYFIO, A. C. Definition of the histaminic component of the broncho-constrictor and cardiovascular effects of anaphylatoxin in the guinea-pig, 424P

SADAVONGVIVAD, CHIRAVAT. See KENNEDY, TOBIAS, M. A. See PLEUVRY, BARBARA J., 706 TOOTH, J. A. See KNOWLES, B. R., 481P TORMAY, ANNE, See MITTAG, T. W., 604 BARBARA L., 483 SATOH, S. See CHIBA, S., 675 SATOH, S. See HASHIMOTO, K., 739 SAVARESE, J. J. See GINSBURG, SARA, 107 TOWNSEND, H. R. A. See Dow, R. C., 478P TURNER, P. See ARBAB, A. G., 479P TURNER, P. See COLTART, D. J., 467P SAXENA, P. N. See FELDBERG, W., 543 SAYERS, A., and SPENCER, P. S. J. Effect of some Tybring, L. See Güttler, F., 151 amphetamine analogues on α-methyl-p-tyrosine-induced catalepsy in rats, 877 SCHAYER, R. W. See REILLY, MARGARET A., 349 SENIOR, JUDITH. See McCormick, J. T., 421 Ungar, A. See McQueen, D. S., 449P Urbanski, T. See Chylinska, J. B., 649 SHALLICE, SUSAN A. See LEONARD, B. E., 722 SHANKS, R. G. See KOFI EKUE, J. M., 23 SHARMA, B. and TAYLOR, S. H. Comparison of VANE, J. R. See GRYGLEWSKI, R., 420P the symptomatic electrocardiographic and haemodynamic effects of acute and long VARMA, B. See RAND, M. J., 536 term β -blockade in angina pectoris, 470P SHEVDE, S. See Massingham, R., 868 SHIBATA, S. See KURAHASHI, K., 210 SHILLITO, ELIZABETH E. See HOLMAN, R. B., 685 SIM, A. W. See BONTA, I. L., 514 of a dose-response curve, 480P Vere, D. W. See Cuthbert, M. F., 471P Vereecken, R. See Casteels, R., 429P Vogt, Marthe. See Holman, R. B., 685 SIMMONDS, M. A. See IVERSEN, L. L., 845 SINGH, B. N. and VAUGHAN WILLIAMS, E. M. Effects on cardiac muscle of the β -adrenoceptor blocking drugs INPEA and LB46 in relation to their local anaesthetic action on WAGNER, D. L. See CONKLIN, J. D., 140 nerve, 10 Smith, A. J. See Grayson, M. F., 473P WALKER, R. J. and WOODRUFF, G. N. Structureactivity studies on a 5-hydroxytryptamine SMITH, R. S. See MILLER, K. W., 482P SMITH, G. M. See OTT, H., 460P SMITH, R. A. See MILLER, K. W., 482P SMITH, R. N. See GRAYSON, M. F., 473P receptor of *Helix aspersa* neurones, 415P WALKER, S. R. See EVANS, MARION E., 446P WALLACE, EDITH T. See Speirs, C. F., 242 SNEDDON, J. M. Relationship between internal Na+/K+ and the accumulation of ¹⁴C-5by phenylbutazone, 325
WARDELL, W. M. See McQueen, E. G., 312
WAWRETSCHEK, W. A. See LEWIS, G. P., 127
WEBSTER, R. A. See JORDAN, C. C., 441P hydroxytryptamine by rat platelets, 834 SNOW, H. M. See HARRY, J. D., 453P SOUTHGATE, P. J. and WILSON, A. B. Pharmacological interaction of lorazepam with thiopentone sodium and skeletal neuromuscular blocking drugs, 434P SPECTOR, R.G. Influence of folic acid on noradrenaline stimulation of rat brain synaptosomes, Speirs, C. F., Stenhouse, D., Stephen, K. W., and Wallace, Edith T. Comparison of Comparison of human serum, parotid and mixed saliva levels of phenoxymethylpenicillin, ampicillin, cloxamuscle of rabbit duodenum, 428P cillin and cephalexin, 242 WESTON, A. H. See ORMEROD, L. P., 411 WHITE, A. C. See GOODE, P. G., 462P WHITE, R. D. See NEAL, M. J., 442P Spencer, P. S. J. See Sayers, A., 877 Spriggs, T. L. B. See Graham, J. D. P., 555 Spriggs, T. L. B. See Jones, Margaret E. L., 430P WHITTAKER, M. See LAITY, J. L. H., 431P WILLIAMS, T. J. See BURDOCK, MARIE, 475P WILSON, A. B. See SOUTHGATE, P. J., 434P STENHOUSE, D. See SPEIRS, C. F., 242 STEPHEN, K. W. See SPEIRS, C. F., 242 STIRLAND, R. M. See KNOWLES, B. R., 481P SUMMERS, R. J. See BLAKELEY, A. G. H., 451P SZABADI, E. See BRADSHAW, C. M., 871 WINSLOW, EILEEN. See PARRATT, J. R., 612 WONG, P. Y. D. See CUTHBERT, A. W., 416P WONG, P. Y. D. See CUTHBERT, A. W., 881 WOODRUFF, G. N. See WALKER, R. J., 415P TABERNER, P. V. See KERKUT, G. A., 439P TAKEUCHI, O. See HASHIMOTO, K., 739 subarachnoid space, 447P

TANCHAJJA, S. See KENNEDY, BARBARA L., 483 TAYLOR, S. H. See SHARMA, B., 470P TEOH, P. C. See BARAR, F. S. K., 472P THOMAS, P. J. See GINSBURG, M., 422P THOMSON, D. S. See EVANS, D. P., 403 THORGEIRSSON, S. S. See CHALMERS, J. P., 455P TISSOT, R. See CONSTANTINIDIS, J., 32 VAUGHAN WILLIAMS, E. M. See SINGH, B. N., 10 VÁZQUEZ, J. See KRIP, G., 696 VERE, D. W. Methods to linearize the lower end

WALLACE, J. E. See BLUM, K., 67
WARDELL, W. M. Drug displacement from protein binding: source of the sulphadoxine liberated WEINSTOCK, MARTA. Role of adrenergic neurone blockade in the hypotensive action of propranolol, 287 WESTON, A. H. Effects of isoprenaline and phenylephrine on energy-rich phosphate compounds and glucose-6-phosphate in smooth and cardiac muscle, 593 WESTON, A. H. Inhibition of the longitudinal WRIGHT, MARY. See BURNSTOCK, G., 180
WRIGHT, P. M. Influence of ouabain, DNP and
DMSO on amino-acid transfer out of the

YAMAMOTO, H. See KIRPEKAR, S. M., 86

ZAIDI, A. S. See KOFI EKUE, J. M., 23 ZAIKUS, G. See BEILIN, L. J., 427P

SUBJECT INDEX

Α

Abstinence syndrome, mouse, automatic recording of the, 477P

Acetylcholine, release from cat spinal cord in vivo compared with that of ¹⁴C-glycine, 441P

- in vivo release from the cerebral cortex of the cat, effects of narcotic analgesics and antagonists on, 53
- , blockade by phenoxybenzamine of the contractor response produced by, in the isolated ileum of the guinea-pig, 197
- -, comparison with effect of choline on adrenergic transmission in rat mesenteric arteries, 776
- , effect on entry of calcium to the motor endplate region, 433P
- Acetylcholinesterase, action of edrophonium on, at the mammalian neuromuscular junction.
- DL-1-(2-Acetyl-4-n-butyramidophenoxy)-2-hydroxy-3-isopropylaminopropane hydrochloride, a new β -adrenoceptor blocking agent, effect on cardiovascular responses to tilting and to isoprenaline in man, 639
- , pharmacology of, in man and dog, 468P Adenosine, comparison of the effects of imipramine, desmethylimipramine, aspirin and, on the aggregation of hamster platelets in vivo and in vitro, 580
- , interaction with theophylline at the neuromuscular junction, 432P
- Adenosine triphosphate, effects of isoprenaline and phenylephrine on, in smooth and cardiac muscle, 593
- , inhibition of the longitudinal muscle of rabbit duodenum, 428P
- Adrenal enzymes, involved in the synthesis and metabolism of adrenaline, effect of chronic administration of nicotine on concentrations. 250
- Adrenal gland, cat, preferential secretion of adrenaline or noradrenaline by, in vivo, in response to different stimuli, 764
- Adrenaline, effects of, on the electrical and mechanical activity of the guinea-pig ureter,
- , effect of reserpine on the activity of adrenal enzymes involved in the synthesis of, 819
- , effects on the vas deferens of the mouse,
- , mechanisms of potentiation of contractor responses to, by methylxanthines in aortic strips, 379
- potentiation of the cardiovascular effect of, by a monoamine oxidase inhibitor, 471P
- preferential secretion of noradrenaline or. by the cat adrenal in vivo in response to different stimuli, 764
- responses of the rat foetus to maternal injections of, 270
- Adrenergic nerves, selective destruction in adult animals using guanethidine, 295
- Adrenergic neurones, differential effects of 6hydroxydopamine on the terminals and nonterminal axons of, 445P
- -, blockade of, role in the hypotensive action of propranolol, 287
- Adrenergic transmission, in rat mesenteric arteries, modification by choline, 776

- Adrenoceptors, effects of isoprenaline and phenylephrine on energy-rich phosphate compounds and glucose-6-phosphate in smooth and cardiac muscle, 593
- α and β , in the guinea-pig colon, 411
- a-Adrenoceptors, evidence for their presence in the central thermoregulatory mechanism of rabbit, 497
- β -Adrenoceptors, bronchial, vascular and cardiac comparison of actions of salbutamol, iso-prenaline and orciprenaline in guinea-pig and dog, 624
- , comparison of the effects of isoprenaline, orciprenaline, salbutamol and isoetharine on the cardiovascular system of anaesthetized dogs, 23
- , possible involvement in amphetamine-induced glycogenolysis in mouse brain, 504
- Adrenoceptor blocking agents, effect of flow-stop on noradrenaline release from normal spleens and spleens treated with cocaine, phentolamine or phenoxybenzamine, 359
- , effects of, on the electrical and mechanical activity of the guinea-pig ureter, 429P , effects on body temperature, 543
- a-Adrenoceptor blocking agents, effect on afterdischarges elicited in chronically isolated slabs of cerebral cortex, 696
- β-Adrenoceptor blocking agents, attempt to assess their selectivity towards the effects of electrical stimulation of the spinal cord on different organs, 452P
- , comparison of the symptomatic, electrocardiographic and haemodynamic effects of acute and long term β -blockade in angina pectoris, 470P
- , effects of, on isolated skeletal and cardiac muscle, 453P
- , effect of M & B 17803A on the cardiovascular responses to tilting and to isoprenaline in man, 639
- , effects of INPEA and LB46 on cardiac muscle in relation to their local anaesthetic activity on nerve, 10
- , pharmacology of M & B 17803A in man and dog, 468P
- , pharmacology of 4-hydroxypropranolol, a metabolite of propranolol, 222
- , role of adrenergic neurone blockade in the hypotensive action of propranolol, 287
- β -Adrenoceptor stimulants, mechanism of resistance
- Adrenocorticotrophic hormone, effect of prolonged treatment with tetracosactrin on hypothalamopituitary-adrenal function in the rat, 804
- Albumin, specificity and degree of interaction with fusidic acid, 151
- Allopregnanes, in vivo production by the ovary of the rat, 560
- Amiloride, absorption, distribution and elimination of, in normal human subjects, 473P
- , possible involvement of calcium in the
- interaction of, with its receptor, 416P
 Amines, in the brain, effect of 6-hydroxydopamine on, 255
- Amino-acids, distribution of tyrosine and tryptophan in brain and body fluids of dogs, 724
- influence of ouabain, dinitrophenol and dimethyl sulphoxide on their transfer out of the subarachnoid space, 447P

Aminoguanidine, effect on catabolism of histamine in various tissues of rats and mice, 349

, inhibition of histidine decarboxylase in rat stomach by, 426P

Aminorex, effect of, on the motor activity and turnover rate of brain catecholamines, 570

Aminoxaphen fumarate, effect on a-methyl-ptyrosine-induced catalepsy in rats, 877

Amphetamine, effect of receptor blocking drugs on the depletion of brain glycogen by, 504

-, effect on afterdischarges elicited chronically isolated slabs of cerebral cortex,

, effects of some analogues on α-methyl-ptyrosine-induced catalepsy in rats, 877

, turning behaviour as an index of their action on central dopamine-containing neurones, 658

Amphetamine congeners, effect of phenmetrazine, aminorex and (\pm) p-chloramphetamine on the motor activity and turnover rate of brain catecholamines, 570

Ampicillin, comparison of human serum, parotid and mixed saliva levels of, with those of phenoxymethylpenicillin, cloxacillin cephalexin, 243

Amylase, tissue concentration of, in mammalian

submaxillary glands, 784

Anaesthesia, effect of general anaesthetics on the permeability of single bilayer phospholipid vesicles and the antagonism of high pressure (T), 482P

, pressure reversal of (T), 482P

Anaesthetics, effect on cardiac muscle of the β-adrenoceptor blocking drugs INPEA and LB46 in relation to their local anaesthetic action on nerve, 10

-, responses to pressor substances in conscious cats compared with those in cats treated with pentobarbitone sodium, a-chloralose, urethane or α-chloralose plus pentobarbitone sodium, 668

-, role of the chemoreceptor trigger zone in cyclopropane induced emesis in dogs, 248

Analgesics, automatic recording of the mouse abstinence syndrome, 477P

, studies of WY 22811, a new analgesic compound, 462P

studies with oripavine partial agonists, 461P Anaphylatoxin, definition of the histaminic components of the bronchoconstrictor and cardiovascular effects of, in the guinea-pig,

Anaphylaxis, of bovine pulmonary vein, pharmacology in vitro, 302

Angina pectoris, comparison of the symptomatic, electrocardiographic and haemodynamic effects of acute and long term β -blockade in,

Angiotensin, I and II, specific antagonists for the myotropic action of, on the isolated rat colon, 409

, I and II, specific inhibitors for, 418P

Angiotensin I converting enzyme, inhibition by venom peptides, 252

Anococcygeus, rat, a new densely innervated smooth muscle preparation, 430P

Antiarrhythmic drugs, inotropic actions of lignocaine and phenytoin, 483

Antibacterial activity, of dihydro-1,3-oxazine derivatives condensed with aromatic rings in positions 5, 6, 649

Antibiotics, comparison of human serum, parotid and mixed saliva levels of phenoxymethylpenicillin, ampicillin, cloxacillin and cephalexin, 242

interaction of albumin and fusidic acid, 151 Anticonvulsants, effect of drugs used in status-epilepticus on the potassium fluxes of cerebrospinal fluid in the conscious dog, 448P

Antidepressive agents, tricyclic and monoamine oxidase inhibitor, interactions between cate-

cholamines and, in man, 472P

Antidiuretic hormone, increased concentrations of cyclic AMP without a physiological without a physiological response after, 881

, microinjection study of the role of adrenergic transmission in the control of the secretion of. 444P

Antihistamines, effect on catabolism of histamine in various tissues of rats and mice, 349

Antihistaminics, inhibition of the Schultz-Dale reaction in bovine pulmonary vein, 302

Antinociceptive activity, comparison of physostigmine, oxotremorine and morphine in the mouse, 706

Aortic smooth muscle, reactivity and electrophysiology in normotensive rats, spontaneously hypertensive rats and rats made hypertensive with desoxycorticosterone plus salt, 868

Arecoline, effect on afterdischarges elicited in chronically isolated slabs of cerebral cortex,

Arrhythmia, ventricular, antiarrhythmic effect of glucagon after coronary artery occlusion in the anaesthetized dog, 279

Aspirin, comparison of the effects of adenosine, imipramine, desmethylimipramine and, on the aggregation of hamster platelets in vivo and in vitro, 580

-, mesenteric vasoconstriction in cats pre-treated with, after endotoxin administration, 259

Asthma, pharmacokinetics of inhaled salbutamol in asthmatic patients, 466P

, resistance to β -adrenoceptor stimulants as a possible explanation for the rise in deaths, 389

Atropine, and hyoscine, differential effect of on human learning capacity, 464P

, effect on the depletion of brain glycogen by amphetamine, 504

, effect on dopamine-induced pancreatic secretion in the dog, 739

effect on afterdischarges elicited in chronically

isolated slabs of cerebral cortex, 696
-, inhibition of binding of benzilylcholine
mustard in subcellular fractions of smooth muscle from guinea-pig ileum, 417P

Automaticity, ventricular, influence of glucagon on, in dogs, 279

"Autoregulatory escape", from tension induced by noradrenaline or electrical stimulation in isolated mesenteric arteries, 865

Barbiturate anaesthetics, effect on the potassium fluxes of cerebrospinal fluid in the conscious dog, 448P

Barbiturates, excretion in rat bile, 161

Behaviour, effects of ethanol-pyrazole interaction in laboratory rodents, 67

- Benzilylcholine mustard, bound, distribution in subcellular fractions of smooth muscle from guinea-pig ileum, 417P
- Benzo[c][1,6]naphthyridine, anti-thrombotic activity of. 460P
- Betahistine, effect on catabolism of histamine in various tissues of rats and mice, 349
- Betamethasone 17-valerate, inhibition of contact sensitivity in the mouse by topical application of, 403
- Bile, dog hepatic, excretion of nitrofurantoin in, 140
- -, pharmacokinetic model for successive demethylation and secretion in, of methyl orange in the rat, 167

, rat, excretion of barbiturates in, 161

- Biogenic amines, and their amino-acid precursors in rat brain, effect of p-nitromethylamphetamine on, 732
- , interaction in the cerebral metabolism in dogs, 715, 724
- Blood, non-traumatic collection from tail vessels and application in Mycoplasma arthritidis, 475P
- Blood flow, uterine, effect of interruption on the rat foetus, 270
- Blood platelets, rat, relationship between internal Na⁺/K⁺ and the accumulation of ¹⁴C-5hydroxytryptamine by, 834

 Bradycardia, in the rat foetus, after maternal
- injections of adrenaline and vasopressin, 270
- Bradykinin potentiating factor, inhibition of angiotensin I converting enzyme by peptides separated from, 252
- Bretylium, potentiation by, of the contractor responses of isolated rabbit aortic strips to potassium and tyramine, 210
- Bronchoconstriction, definition of the histaminic component of the bronchoconstrictor and cardiovascular effects of anaphylatoxin in the guinea-pig, 424P
- Bronchodilation, comparison of the bronchodilator and cardiovascular actions of salbutamol, isoprenaline and orciprenaline in guinea-pigs and dogs, 624
- 1,4-Butanediol, hypnogenic properties of, 439P

- Caffeine, mechanism of potentiation of contractor responses to catecholamines by, in aortic strips, 379
- Calcium, effects of acetylcholine and carbachol on entry to the motor endplate region, 433P
- , possible involvement in the interaction of amiloride with its receptor, 416P
- Cancer chemotherapy, method for the estimation of daunorubicin and daunorubicin reductase, 828
- Cannabis, pharmacology of: catalepsy, hypothermia; inhibition of drug metabolism (T),
- Carbachol, effect on entry of calcium to the motor endplate region, 433P
- Carbon tetrachloride, effect on the excretion of intravenously administered nitrofurantoin in dog hepatic bile, 140
- Cardiac dysrhythmia, effect of practolol on limb blood flow in anaesthetized patients with,
- Cardiac muscle, effects of isoprenaline and phenylephrine on energy-rich phosphate compounds and glucose-6-phosphate in, 593

Cardiovascular system, of anaesthetized dogs, comparison of the effects of isoprenaline, orciprenaline, salbutamol and isoetharine, 23

- Carrier mediated transport, relationship between internal Na+/K+ and the accumulation of ¹⁴C-5-hydroxytryptamine by rat platelets, 834
- Catabolism, studies of histamine in rats and mice in vivo, 349
- Catalepsy, induced by a-methyl-p-tyrosine in rats, effect of some amphetamine analogues on,
- Catecholamines, brain, effect of phenmetrazine, aminorex and (\pm) p-chloramphetamine on the motor activity and turnover rate of, 570-, central, effect of alterations on the hypo-
- thermic response to 6-hydroxydopamine in desipramine treated rats, 671
- , differences in the uptake, storage and metabolism of (+)- and (-)-noradrenaline,
- effect of intracerebroventricular administration on body temperature in rabbits, 497 effects on the vas deferens of the mouse.
- 430P
- , effects of, on the electrical and mechanical activity of the guinea-pig ureter, 429P
- , effect of chronic administration of nicotine on concentrations in rat adrenals, 250
- , in the spinal cord, effect of bis(4-methyl-1homopiperazinyl thiocarbonyl) disulphide, a new dopamine-β-hydroxylase inhibitor, 747
- interactions between tricyclic and monoamine oxidase inhibitor antidepressive agents and, in man, 472P
- , mechanism of potentiation of contractor responses to, by methylxanthines in aortic strips, 379
- passage into the rat brain of dopa and dopamine injected into the lateral ventricle, 32 , preferential secretion of adrenaline or noradrenaline by the cat adrenal in vivo in response to different stimuli, 764
- -, potentiation of the cardiovascular effects of some, by a monoamine oxidase inhibitor. 471P
- Catechol-o-methyl transferase, effect of chronic administration of nicotine on concentrations in rat adrenals, 250
- Cell migration, photometric method for the measurement of inhibition, 475P
- Cephalexin, comparison of human serum, parotid and mixed saliva levels of, with those of phenoxymethylpenicillin, ampicillin cloxacillin, 243
- Cerebral metabolism, passage into the rat brain of dopa and dopamine injected into the lateral ventricle, 32
- Cerebrospinal fluid, distribution of tyrosine and tryptophan in, in dogs, 724
- Chemoreceptor trigger zone, role in cyclopropane induced emesis in dogs, 248
- a-Chloralose, responses to pressor substances in conscious cats and cats anaesthetized with, 668
- (\pm) p-Chloramphetamine, effect of, on the motor activity and turnover rate of brain catecholamines, 570
- p-Chlorophenylalanine, effect on the hypnotic action of clonidine in chick, 685
- 4 (m Chlorophenylcarbamoyloxy) 2 butynyltri methylammonium chloride, blocking effect on cardiac slowing produced by vagal stimulation, 675

- 4 (m Chlorophenylcarbamoyloxy) etc., (contd.)
- , effects on responses to sympathetic nerve stimulation in the rabbit ear artery, 536
- —, responses to intravenous injections in conscious and anaesthetized cats, 668
- Chloroquine, concentrations of, in skin of rabbits and man, 335
- Chlorpheniramine, effect on catabolism of histamine in various tissues of rats and mice, 349 Chlorpromazine, effect on the depletion of brain
- glycogen by amphetamine, 504

 —, effects of, on the *in vivo* release of acetylcholine from the cerebral cortex of the cat, 53

 —, inhibitory effect of, on the syndrome of
 - hyperactivity produced by L-tryptophan or 5-methoxy-N,N-dimethyltryptamine in rats treated with a monoamine oxidase inhibitor, 856
- Choline, modification by, of adrenergic transmission in rat mesenteric arteries, 776
- Cholinergic nerve terminals, in cat sympathetic ganglia, 3H-noradrenaline-accumulating ability of, 555
- Cholinesterase, effect of variations in activity in plasma and tissues of cats, on neuromuscular blocking action of suxamethonium, 341
- Clonidine, changes in release of [3H]-noradrenaline from field stimulated rat iris induced by, 97—, mechanism of hypnotic effect, 685
- Cloxacillin, comparison of human serum, parotid and mixed saliva levels of, with those of phenoxymethylpenicillin, ampicillin and cephalexin, 243
- Cocaine, effects of flow-stop on noradrenaline release from normal spleens and spleens treated with, 350
- Codeine, effects of, on the *in vivo* release of acetylcholine from the cerebral cortex of the cat, 53
- Computers, use of a digital computer programme as a guide to the prescribing of kanamycin in patients with renal insufficiency, 481P
- Contact sensitivity, inhibition by topical application of corticosteroids in the mouse, 403
- Contractility, cardiac, role of cyclic AMP in the effect of sympathomimetic amines on, 757
- Cortical neurones, single, effect of mescaline on, 871
- Corticosteroids, inhibition of contact sensitivity in the mouse by topical application of, 403
- Corticotrophin, effect of prolonged treatment with tetracosactrin on hypothalamo-pituitaryadrenal function in the rat, 804
- Creatine phosphate, effects of isoprenaline and phenylephrine on, in smooth and cardiac muscle, 593
- Cyclic AMP, increased concentrations of, without a physiological response after antidiuretic hormone, 881
- —, lack of relationship between myocardial concentrations and inotropic effects of sympathomimetic amines, 757
- Cyclophosphamide, pharmacokinetics of, in man, 677
- Cyclopropane, role of the chemoreceptor trigger zone in emesis induced by, in dogs, 248
- N-Cyclopropylmethyl-oripavines, analgesic and dependence studies with, 461P
- Cytosol, from hypothalamus, amydala, cerebral cortex and cerebellum, oestradiol binding in, 422P

D

- Daunorubicin reductase, method for the estimation of daunorubicin and, 828
- (±)-2,3-Dehydroemetine, comparison of effects of isomers and analogues of, on protein synthesis in rat liver, 456P
- Dentine, implantation of electrodes in, of an upper canine tooth in the dog, 476P
- Desipramine, changes in release of [3H]-nor-adrenaline from field stimulated rat iris induced by, 97
- —, effect of central catecholamine alterations on the hypothermic response to 6-hydroxydopamine in rats treated with, 671
- Desmethylimipramine, comparison of the effects of adenosine, imipramine, aspirin and, on the aggregation of hamster platelets in vivo and in vitro, 580
- **Desoxycorticosterone**, vascular reactivity in hypertension induced by, 427P
- Diazepam, effect on the potassium fluxes of cerebrospinal fluid in the conscious dog, 448P
- —, pharmacological interaction with thiopentone sodium and skeletal neuromuscular blocking agents, 434P
- Diethylcarbamazine citrate, effect on anaphylaxis in the bovine pulmonary vein, 302
- Dihydro-1,3-oxazine, antibacterial activity of derivatives condensed with aromatic rings in positions 5,6, 649
- 1,1 Dimethyl 4 phenylpiperazinium, nicotinic stimulant action of some tolyl and xylyl analogues of, 370
- Dimethyl sulphoxide, influence of, on amino-acid transfer out of the subarachnoid space, 447P
- Dinitrophenol, influence of, on amino-acid transfer out of the subarachnoid space, 447P
- **Disodium cromoglycate,** effect on anaphylaxis in the bovine pulmonary vein, 302
- Diuretics, absorption, distribution and elimination of ¹⁴C-amiloride in normal human subjects, 473P
- **DMPP.** See 1,1-dimethyl-4-phenylpiperazinium **Dopa**, passage into the rat brain when injected into the lateral ventricle, 32
- L-Dopa, action of, in the spinal cord, effect of bis(4-methyl-1-homopiperazinyl thiocarbonyl) disulphide, a new dopamine-β-hydroxylase inhibitor, 747
- —, effect of, on pancreatic secretion in the dog, 739
- **Dopamine**, effect of, on pancreatic secretion in the dog, 739
- effect of intracerebroventricular administra-
- tion on body temperature in rabbits, 497
 —, effects on the vas deferens of the mouse, 430P
- 430P —, in rat brain, effect of p-nitromethylamphet-
- amine on, 732
 —, in the brain, effect of phenmetrazine, aminorex and (±) p-chloramphetamine on
- the motor activity and turnover rate of, 570
 —, in the brain, effect of 6-hydroxydopamine
 on, 255
- —, lack of relationship between myocardial cyclic AMP concentrations and inotropic effects of, 757
- ---, metabolism in brain and cerebrospinal fluid, effect of intravenous infusion of L-tryptophan on, 715
- —, passage into the rat brain when injected into the lateral ventricle, 32

Dopamine (contd.)

, release of, by nerve stimulation in the cat spleen perfused with 8H-dopamine, 86

Dopamine-containing neurones, central, turning behaviour as an index of the action of amphetamines and ephedrines on, 658

Dopamine-β-hydroxylase inhibitor, effects of bis-(4-methyl-1-homopiperazinyl thiocarbonyl) disulphide on the noradrenaline concentration and on the action of L-dopa in the spinal cord, 747

Drug potency, methods to linearize the lower end of a dose-response curve, 480P

Dose-response curve, methods to linearize the lower end of, 480P

E

Edrophonium, action of, on acetylcholinesterase at the mammalian neuromuscular junction, 435P

Electrical self stimulation, of the brain, effect of 6-hydroxydopamine on, 255

Electrical stimulation, escape from tension induced by, in isolated mesenteric arteries, 865

Electrodes, implantation of, in the dentine of an upper canine tooth in the dog, 476P

Electrophysiology, impulse transmission in the myenteric plexus-longitudinal muscle preparation of the guinea-pig ileum, 74

Emesis, role of the chemoreceptor trigger zone in, induced in dogs by cyclopropane, 248 Endotoxin, mesenteric vasoconstriction

administration in cats pretreated with aspirin, 259

End-plate potentials, in frog muscle, effects of saxitoxin and tetrodotoxin compared, 681

Enzymes, action of edrophonium on acetylcholinesterase at the mammalian neuromuscular junction, 435P
-, adrenal, involved in the synthesis of adrena-

line, effect of reserpine on the activity of, 819 , daunorubicin metabolism: estimation of

daunorubicin reductase, 828, inhibition of histidine decarboxylase in rat stomach by aminoguanidine, 426P

, kallikrein, trypsin-like proteases and amylase in mammalian submaxillary glands, 784 , liver microsomal, routine assessment of drug-relation induction of, during toxicity trials in animals, 478P

, monoamine oxidase in sympathetic nerves: a transmitter specific enzyme type, 814

Ephedrine, effect on afterdischarges elicited in chronically isolated slabs of cerebral cortex,

effect on a-methyl-p-tyrosine-induced catalepsy in rats, 877

, turning behaviour as an index of action on central dopamine-containing neurones, 658

Epilepsy, absorption, distribution and excretion of methsuximide in male rats, 459P

, influence of folic acid on noradrenaline stimulation of rat brain synaptosomes, 438P

Epileptiform activity, induced cortical, role of sympathomimetic agents in maintenance and termination, 696

Epileptogenic lesions, method for the production and detection of, in rat cerebral cortex, 478P Ergotamine, effects on body temperature, 543

Erythrocytes, distribution of tyrosine and tryptophan in, in dogs, 724

Ethanol, effects of interaction with pyrazole in laboratory rodents, 67

Exocrine cells, effect of dopamine on pancreatic

secretion in the dog, 739

Extrapyramidal diseases, 1-hydroxy-3-amino-pyrrolidone-2 (HA-966), a new GABA-like compound with potential use in, 514

Fencamfamin, effect on a-methyl-p-tyrosineinduced catalepsy in rats, 877

Fenfluramine, plasma concentrations of after single and repeated oral administration, and of its metabolite norfenfluramine, 465P

FLA 63, sensitivity of central noradrenaline receptors after, 43

Fluocinolone acetonide, inhibition of contact sensitivity in the mouse by topical application of,

Foetus, rat, physiological reactions to maternal injections of adrenaline and vasopressin, 270 Folic acid, influence of, on noradrenaline stimula-

tion of rat brain synaptosomes, 438P Fusidic acid, specificity and degree of interaction with serum protein, 151

GABA, 1-hydroxy-3-amino-pyrrolidone-2 (HA-966), a new GABA-like compound with potential use of extrapyramidal diseases, 514

Gallamine, pharmacological interaction with lorazepam, 434P

GD131, changes in release of [3H]-noradrenaline from field stimulated rat iris induced by, 97 Glucagon, effect of, on ventricular arrhythmias after coronary artery occlusion and on ventricular automaticity in the dog, 279

Glucose-6-phosphate, effects of isoprenaline and phenylephrine on, in smooth and cardiac muscle, 593

L-Glutamate, uptake by rat retina, 442P

Glycine, release from the cat spinal cord in vivo, 4411

Glycogen, brain, effect of receptor blocking drugs on depletion by amphetamine, 504 Gonadotrophins, interaction between

glandins and, in the rabbit ovary, 794 Guanethidine, effect of, on dopamine-induced

pancreatic secretion in the dog, 739 , use to destroy adrenergic nerves in adult animals, 295

Н

H 44/68, effects of some amphetamine analogues on catalepsy induced by, in rats, 877

Hallucinogens, effect of mescaline on single cortical neurones, 871

Histamine, blockade by phenoxybenzamine of the contractor response produced by, in the isolated ileum of the guinea-pig, 197

, catabolism in vivo studied in various tissues of rats and mice, 349

definition of the histaminic component of the bronchoconstrictor and cardiovascular effects of anaphylatoxin in the guinea-pig, 424P

, effects on the vas deferens of the mouse, 430P

inhibition of histidine decarboxylase in rat stomach by aminoguanidine, 426P

Histidine decarboxylase, inhibition of, in rat stomach by aminoguanidine, 426P

- Hormones, responses of the rat foetus to maternal injections of adrenaline and vasopressin, 270—, sex, effects on the concentrations of plasma kininogen in the female rat, 421P
- Hydrocholeresis, in dogs after intravenous administration of nitrofurantoin, 140
- Hydrocortisone, inhibition of contact sensitivity in the mouse by topical application of, 403
- —, regional and subcellular changes in the concentration of 5-hydroxytryptamine and 5-hydroxyindoleacetic acid in the rat brain caused by, 39
- Hydrolysis, enzymic, of suxamethonium, relative importance of in plasma and tissues of cats, 341
- 1-Hydroxy-3-amino-pyrrolidone-2 (HA-966), a new GABA-like compound with potential use in extrapyramidal diseases, 514
- 4-Hydroxybutyric acid, hypnogenic properties of, 439P
- 6-Hydroxydopamine, differential effects of, on the terminals and non-terminal axons of adrenergic neurones, 445P
- —, effect on electrical self-stimulation of the brain, 255
- ---, effect of central catecholamine laterations on the hypothermic response to, in desipramine treated rats, 671
- 5-Hydroxyindoleacetic acid, and 5-hydroxytryptamine in the rat brain, regional and subcellular changes in the concentration of, caused by hydrocortisone, DL-a-methyltryptophan, Lkynurenine and immobilization, 39
- 5-Hydroxyindoles, metabolism in brain and cerebrospinal fluid, effect of intravenous infusion of L-tryptophan on, 715
- **4-Hydroxypropranolol**, a metabolite of propranolol, pharmacology of, 222
- 5-Hydroxytryptamine, action of imipramine on 5-hydroxytryptaminergic transmission and uptake of, in the snail brain, 437P
- ——, and 5-hydroxyindoleacetic acid, in the rat brain, regional and subcellular change in the concentration of, caused by hydrocortisone. DL-a-methyltryptophan, L-kynurenine and immobilization, 39
- —, blockade by phenoxybenzamine of the contractor response produced by, in the isolated ileum of the guinea-pig, 197
- —, effects of bretylium and pheniprazine on the responses of isolated rabbit aortic strips to, 210
- ----, effects on the vas deferens of the mouse, 430P
- —, in brain, effect of phenmetrazine, aminorex and (±) p-chloramphetamine on the motor activity and turnover rate of, 570
- —, in rat brain, effect of *p*-nitromethylamphetamine on, 732
- —, relationship between internal Na⁺/K⁺ and the accumulation of, by rat platelets, 834
- ----, role of, in tetrahydronaphthylamine-induced temperature changes in the rat, 1
- —, structure-activity studies on a receptor for, in *Helix aspersa* neurones, 415P
- **5-Hydroxytryptamine-containing neurones,** in brain of chick, effect of treatment with *p*-chlorophenylalanine on sleep-inducing action of clonidine, 685
- Hyoscine, and atropine, differential effect of on human learning capacity, 464P

- Hyperactivity, produced by L-tryptophan or 5-methoxy-N,N-dimethyltryptamine in rats treated with a monoamine oxidase inhibitor, inhibitory effect of chlorpromazine on, 856
- Hyperpyrexia, produced by L-tryptophan or 5-methoxy-N,N-dimethyltryptamine in rats treated with a monoamine oxidase inhibitor, inhibitory effect of chlorpromazine on, 856
- Hypertension, aortic reactivity and electrophysiology in normotensive rats, spontaneously hypertensive rats, and rats made hypertensive with desoxycorticosterone plus salt, 868
- ---, induced by desoxycorticosterone, vascular reactivity in, 427P
- Hypnogenesis, hypnogenic properties of succinic semialdehyde and its fatty acid derivatives, 439P
- Hypotension, human pharmacology of indoramin, 467P
- —, role of adrenergic neurone blockade in the hypotensive action of propranolol, 287
- Hypothalamo-pituitary-adrenal function, effect of prolonged treatment with tetracosactrin, in the rat, 804
- Hypothalamus, oestradiol binding in cytosol from, 422P
- Hypothermia, effect of central catecholamine alterations on the hypothermic response to 6-hydroxydopamine in desipramine treated rats, 671
- Hypoxic drive, comparison of replacement by nikethamide or suberyl dicholine diiodide in in respiratory depression, 449P

Ι

- ICRF 159, vascular changes in tumours after treatment with, 457P
- Imipramine, action of, on 5-hydroxytryptaminergic transmission and on 5-hydroxytryptamine uptake in the snail (*Helix pomatia*) brain, 437P
- —, comparison of the effects of adenosine, desmethylimipramine, aspirin and, on the aggregation of hamster platelets *in vivo* and *in vitro*, 580
- —, interactions between catecholamines and, in man, 472P
- Immobilization, regional and subcellular changes in the concentration of 5-hydroxytryptamine and 5-hydroxyindoleacetic acid in the rat brain caused by, 39
- Indoramin, human pharmacology of, 467P
- **Inflammation,** inhibition of contact sensitivity in the mouse by topical application of corticosteroids, 403
- **Inotropism**, inotropic actions of lignocaine and phenytoin, 483
- INPEA, compared with LB46, in effects on cardiac muscle and local anaesthetic activity on nerve, 10
- Inulin, determination of renal clearance in rats: lowered values at low urine flow rates, 874
- Isoetharine, effects on the cardiovascular system of anaesthetized dogs, compared with those of isoprenaline, orciprenaline and salbutamol, 23
- —, resistance to, after prolonged administration studied in man and animals, 389

- **Isoprenaline,** antagonism of actions in the guineapig colon by propranolol, phentolamine, thymoxamine and dibenamine, 411
- comparison of the bronchodilator and cardiovascular actions of salbutamol, orciprenaline and, in guinea-pigs and dogs, 624
 effect of intracerebroventricular administration on body temperature in rabbits, 497

---, effect of meclofenamic acid on the vasodepressor response to in the anaesthetized rabbit, 236

—, effects on energy-rich phosphate compounds and glucose-6-phosphate in smooth and cardiac muscle, 593

effects on the cardiovascular system of anaesthetized dogs, compared with those of orciprenaline, salbutamol and isoetharine, 23
 potentiation of the cardiovascular effect of, by a monoamine oxidase inhibitor, 471P

—, resistance to, as a possible explanation for the rise in asthma deaths, 389

Isoproterenol, effects of, on the electrical and mechanical activity of the guinea-pig ureter,

Isoxazolium cations, effects on some isolated muscle preparations, 604

K

Kallikrein, increase in the lymph after thermal injury, 127

---, tissue concentration of, in mammalian submaxillary glands, 784

Kanamycin, use of digital computer programme as a guide to the prescribing of, in patients with renal insufficiency, 481P

Kidney, determination of the renal clearance of inulin in rats: lowered values at low urine flow rates, 874

Kinin-forming system, in rabbit lymph and plasma, examined before and after thermal injury, 127 Kininogen, effect of sex hormones on the plasma

concentration of, in the female rat, 421P L-Kynurenine, regional and subcellular changes in the concentration of 5-hydroxytryptamine and 5-hydroxyindoleacetic acid in the rat brain caused by, 39

I

LB46, compared with INPEA, in effects on cardiac muscle and local anaesthetic activity on nerve, 10

Levallorphan, effects of, on the *in vivo* release of acetylcholine from the cerebral cortex of the cat, 53

Levodopa, relationship of plasma concentrations of, to clinical response in Parkinsonism, 464P

Lignocaine, inotropic actions of, 483
—, neuromuscular actions of, 431P

Lipase activity, of macrophages, effects of nonionic surfactants that modify experimental tuberculosis on, 190

Liver, influence of phenobarbitone on liver regeneration and microsomal N-demethylating activity in partially hepatectomized rats, 458P

Liver microsomal enzymes, routine assessment of drug-related induction of, during toxicity trials in animals, 478P

Lorazepam, pharmacological interaction with thiopentone sodium and skeletal neuro-muscular blocking agents, 434P

Luteinizing hormone, effect on steroidogenesis in the rabbit ovary in the presence of prostaglandins, 794

Lymph, effect of thermal injury on the kininforming system in, 127

M

M & B 17803A. See DL-1-(2-acetyl-4-n-butyr-amidophenoxy) - 2 - hydroxy - 3 - isopropyl - aminopropane hydrochloride

MJ1988. See quazodine

MJ-1999, effect on response of single cortical neurones to mescaline, 871

McN-A-343. See 4-(m-chlorophenylcarbamoy-loxy)-2-butynyltrimethylammonium chloride.

Macrophages, lipase activity of, effects of nonionic surfactants that modify experimental tuberculosis on, 190

Meclofenamic acid, analysis of the prostaglandin blocking activity in the anaesthetized rabbit, 236

Memory, differential effect of atropine and hyoscine on human learning capacity, 464P Mepyramine, effect on the depletion of brain glycogen by amphetamine, 504

—, effects of, on the *in vivo* release of acetylcholine from the cerebral cortex of the cat, 53

Mescaline, effect of, on single cortical neurones,

Mesenteric arteries, isolated, escape from tension induced by noradrenaline or electrical stimulation in, 865

—, rat, modification by choline of adrenergic transmission in, 776

Metabolism, pharmacokinetic model for the successive demethylation and biliary secretion of methyl orange in the rat, 167

Methadone, effects of, on the *in vivo* release of acetylcholine from the cerebral cortex of the cat, 53

Methamphetamine, effect on afterdischarges elicited in chronically isolated slabs of cerebral cortex, 696

cortex, 696
5-Methoxy-N,N-dimethyltryptamine, inhibitory effect of chlorpromazine on the hyperactivity and hyperpyrexia produced by, in rats treated with a monoamine oxidase inhibitor, 856

Methsuximide, absorption, distribution and excretion in male rats, 459P

Methyl orange, pharmacokinetic model for the successive demethylation and biliary secretion of, in the rat, 167

3-O-Methyldopa, demethylation of, 455P

Methylhistamine, effect on catabolism of histamine in various tissues of rats and mice, 349

Bis(4-Methyl-1-homopiperazinyl thiocarbonyl) disulphide, effects on the noradrenaline concentration and on the action of L-dopa in the spinal cord, 747

 a-Methylnoradrenaline, mechanism of potentiation of contractor responses to, by methylxanthines in aortic strips, 379

Methylphenidate, effect on α-methyl-p-tyrosine-induced catalepsy in rats, 877

3-Methylpyrazole, comparison of effects with those of pyrazole in ethanol treated rats, 67

DL-a-Methyltryptophan, regional and subcellular changes in the concentration of 5-hydroxy-tryptamine and 5-hydroxyindoleacetic acid in the rat brain caused by, 39

a-Methyl-p-tyrosine, effects of some amphetamine analogues on catalepsy induced by, in rats,

, sensitivity of central noradrenaline receptors after, 43

Methylxanthines, mechanism of potentiation of contractor responses to catecholamines by, in aortic strips, 379

Methysergide, effect on response of single cortical neurones to mescaline, 871

. effect on the depletion of brain glycogen by amphetamine, 504

inhibition of the Schultz-Dale reaction in bovine pulmonary vein, 302

Monoamines, noradrenaline uptake by noninnervated smooth muscle, 180

, role of, in tetrahydronaphthylamine-induced temperature change in the rat, 1

Monoamine oxidase, effect of chronic administration of nicotine on concentrations in rat

adrenals, 250 , effect of inhibition on the N, P and LN potentials of the rabbit superior cervical

ganglia, 436P , in sympathetic nerves: a transmitter specific enzyme type, 814

Monoamine oxidase inhibitors, effect of pargyline on the uptake of labelled noradrenaline by the cat spleen, 451P

, inhibitory effect of chlorpromazine hyperactivity and hyperpyrexia produced by L-tryptophan or 5-methoxy-N,N-dimethyltryptamine in rats treated with, 856

, potentiation of the cardiovascular effects of some catecholamines by, 471P

Morphine, comparison of antinociceptive activity with that of physostigmine and morphine, 706

, effects of, on the in vivo release of acetylcholine from the cerebral cortex of the cat, 53

Muscarinic agonists, effects of McN-A-343 (4-(mchlorophenylcarbamoyloxy) - 2 - butynyltri methylammonium chloride) on responses to sympathetic nerve stimulation in the rabbit ear artery, 536

-, effects on cardiac performance and the release of noradrenaline from the sympathetic nerves of the rabbit heart, 454P

Muscarinic receptors, distribution of bound 2Hbenzilylcholine mustard in subcellular fractions of smooth muscle from guinea-pig ileum,

Mycobacterium, antibacterial activity of dihydro-1,3-oxazine derivatives condensed with aromatic rings in position 5, 6, 649

Mycoplasma arthritidis, application of nontraumatic blood collection from rat tail vessels, 475P

Myenteric plexus-longitudinal muscle preparation, of the guinea-pig ileum, impulse transmission

Myocardial infarction, acute, potential usefulness of glucagon in treatment, 279

Na⁺ and K⁺ ratios, internal, relationship with accumulation of ¹⁴C-5-hydroxytryptamine by rat platelets, 834

Nalorphine, effects of, on the in vivo release of acetylcholine from the cerebral cortex of the

Naloxone, effects of, on the in vivo release of acetylcholine from the cerebral cortex of the cat, 53

Narcotic analgesics, comparison of the antinociceptive activities of physostigmine, oxotremorine and morphine in the mouse, 706

effects of, on in vivo release of acetylcholine from the cerebral cortex of the cat, 53

Narcotic antagonists, effects of, on in vivo release of acetylcholine from the cerebral cortex of the cat, 53

Neural tissues, of Octopus vulgaris, distribution of octopamine in, 438P

Neuromuscular blockade, activity of a new series of quaternary N-substituted choline esters, 107

Neuromuscular blocking agents, relative importance of the enzymic hydrolysis of suxamethonium in plasma and tissues of cats, 341

Neurophysin, accumulation of, in the median eminence and cerebellum of sheep with natural scrapie, 423P
Nicotine, effect of bretylium on the contractor

responses of isolated rabbit aortic strips to,

-, effect of chronic administration of, on the concentrations of adrenal enzymes involved in the synthesis and metabolism of adrenaline,

Nicotinic activity, of some tolyl and xylyl analogues of 1,1-dimethyl-4-phenylpiperazinium, 370

Nikethamide, effectiveness compared with that of suberyl dicholine diiodide to replace hypoxic drive in respiratory depression, 449P Nitrofurantoin, excretion of, in dog hepatic bile,

140

p-Nitromethylamphetamine, effect on biogenic amines and their amino-acid precursors in rat brain, 732

Noradrenaline, (+)- and (-)-, differences in the uptake, storage and metabolism of, 845

, ability of cholinergic nerve terminals in cat sympathetic ganglia to accumulate, 555 , effect of bretylium on the contractor

responses of isolated rabbit aortic strips to. 210

. effect of intracerebroventricular administration on body temperature in rabbits, 497 , effect of microinjection on the secretion of

antidiuretic hormone, 444P

, effects of flow-stop on release from normal spleens and spleens treated with cocaine, phentolamine or phenoxybenzamine, 359

, effects of, on the electrical and mechanical activity of the guinea-pig ureter, 429P , effects on the vas deferens of the mouse,

, escape from tension induced by, in isolated

mesenteric arteries, 865 evidence for active uptake in the guinea-pig

isolated trachea, 450P , hypnotic potency compared with that of clonidine, 685

, in rat brain, effect of p-nitromethylamphetamine on, 732

, in the brain, effect of phenmetrazine, aminorex and (\pm) p-chloramphetamine on the motor activity and turnover rate of, 570 , in the brain, effect of 6-hydroxydopamine on, 255

-, in sympathetic nerves, role of a specific monoamine oxidase in metabolism, 814

, in the spinal cord, effect of bis(4-methyl-1homopiperazinyl thiocarbonyl) disulphide, a new dopamine- β -hydroxylase inhibitor. 747 influence of folic acid on stimulation of rat

brain synaptosomes by, 438P

Noradrenaline (contd.)

- , labelled changes in release from field stimulated rat iris induced by various drugs,
- , labelled, effect of pargyline on uptake by the cat spleen, 451P
- -, mechanism of potentiation of contractor responses to, by methylxanthines in aortic strips, 379
- preferential secretion of adrenaline or, by the cat adrenal in vivo in response to different stimuli, 764
- , release of, by nerve stimulation in the cat spleen perfused with 3H-dopamine, 86
- , responses to intravenous injections conscious and anaesthetized cats, 668
- , role of, in tetrahydronaphthylamine-induced
- temperature changes in the rat, 1 , supersensitivity of central receptors for, after reserpine, 443P
- uptake by non-innervated smooth muscle,
- Norfenfluramine, plasma concentrations of fenfluramine and, after single and repeated oral administration, 465P
- Normetanephrine, changes in release of (3H)-noradrenaline from field stimulated rat iris induced by, 97

Obesity, plasma concentrations of fenfluramine and its metabolite norfenfluramine, after single and repeated oral administration, 465P

Octopamine, distribution in nervous tissues of Octopus vulgaris, 438P

Octopus vulgaris, distribution of octopamine in nervous tissues of, 438P

Oestradiol, binding in hypothalamic cytosol, 422P Oestrogen, effects on the concentrations of plasma kiningen in the female rat, 421P Orciprenaline, comparison of the bronchodilator

and cardiovascular actions of salbutamol. isoprenaline and, in guinea-pigs and dogs, 624 , effects on the cardiovascular system of anaesthetized dogs, compared with those of

isoprenaline, salbutamol and isoetharine, 23 Ouabain, influence of, on amino-acid transfer out of the subarachnoid space, 447P

Ovary, rat, in vivo production of steroids with central depressant actions, 560

Oxazolone, inhibition of contact sensitivity to in the mouse by topical application of corticosteroids, 403

Oxprenolol, effects on isolated skeletal and cardiac muscle, 453P

, use in patients with angina pectoris, 470P Oxotremorine, comparison of antinociceptive activity with that of physostigmine and morphine, 706

Pancreatic secretion, effect of dopamine and L-dopa on, in the dog, 739

Paraldehyde, effect on the potassium fluxes of cerebrospinal fluid in the conscious dog, 448P Pargyline, effect of monoamine oxidase inhibition by, on the N, P and LN potentials of the

rabbit superior cervical ganglia, 436P effect on the uptake of labelled noradrenaline

by the cat spleen, 451P

Parkinsonism, relationship of plasma concentrations of levodopa to clinical response in,

Pentazocine, effects of, on the in vivo release of acetylcholine from the cerebral cortex of the cat, 53

Pentobarbitone, excretion in rat bile, 161

Pentobarbitone sodium, responses to pressor substances in conscious cats and cats anaesthetized with, 668

- Peptides, from venom of Bothrops jararaca, inhibition of angiotensin I converting enzyme by, 252
- pH, influence of, on absorption of thymoxamine through buccal mucosa in man, 479P
- Pharmacokinetics, interaction between phenylbutazone and sulphadoxine in sheep in vivo,
 - model for the successive demethylation and biliary secretion of methyl orange in the rat, 167
- of cyclophosphamide in man, 677
- Phenelzine, interactions between catecholamines and, in man, 472P
- Phenethanol-amine N-methyl transferase, effect of chronic administration of nicotine on con-centrations in rat adrenals, 250
- Pheniprazine, potentiation of the contractor responses of isolated rabbit aortic strips to potassium and tyramine, 210
- Phenmetrazine, effect of, on the motor activity and turnover rate of brain catecholamines, 570
- , effect a-methyl-p-tyrosine-induced on catalepsy in rats, 877

Phenobarbitone, excretion in rat bile, 161

- , influence of, on liver regeneration and microsomal N-demethylating activity in partially hepatectomized rats, 458P
- Phenoxybenzamine, blockade by, of the contractor response produced by agonists in the isolated ileum of the guinea-pig, 197
- , changes in release of [3H]-noradrenaline from field stimulated rat iris induced by, 97 , effect on afterdischarges elicited chronically isolated slabs of cerebral cortex.
- , effect on mesenteric vasoconstriction after endotoxin administration in cats pretreated with aspirin, 259
- , effect on the depletion of brain glycogen by
 - amphetamine, 504
 -, effects of flow-stop on noradrenaline release from normal spleens and spleens treated with, 359
 - , effects on body temperature, 543
- Phenoxymethylpenicillin, comparison of human serum, parotid and mixed saliva levels of, with those of ampicillin, cloxacillin and cephalexin, 243
- Phentolamine, changes in release of [3H]-noradrenaline from field stimulated rat iris
- induced by, 97, effect of, on dopamine-induced pancreatic secretion in the dog, 739
- , effects of flow-stop on noradrenaline release from normal spleens and spleens treated with, 350
- effect on afterdischarges elicited chronically isolated slabs of cerebral cortex,
- effect on the depletion of brain glycogen by amphetamine, 504

Phentolamine (contd.)

—, effects on body temperature, 543

Phenylbutazone, effect on total and free plasma concentrations of sulphadoxine in sheep in vivo, 312

—, source of sulphadoxine susceptible to displacement by, injected in sheep *in vivo*, 325

Phenylephrine, antagonism of actions in the guinea-pig colon by propranolol, phentolamine, thymoxamine and dibenamine, 411

, effects on energy-rich phosphate compounds and glucose-6-phosphate in smooth and cardiac muscle, 593

—, lack of relationship between myocardial cyclic AMP concentrations and inotropic effects of 757

Phenylethanolamine-N-methyl transferase, effect of reserpine on activity in adrenal gland, 819

Phenylethylamines, effect of p-nitromethylamphetamine on biogenic amines and their aminoacid precursors in rat brain, 732

Phenylpropanolamine, potentiation of the cardiovascular effects of, by a monoamine oxidase inhibitor, 471P

Phenytoin, effect on the potassium fluxes of cerebrospinal fluid in the conscious dog, 448P

—, inotropic actions of, 483

Phospholipase C, effects on cyclic AMP concentrations after treatment with antidiuretic hormone, in tissue treated with, 881

Physostigmine, comparison of antinociceptive activity with that of oxotremorine and morphine, 706

Plasma, distribution of tyrosine and tryptophan in dogs, 724

—, effect of thermal injury on the kininforming system in, 127

Platelet aggregation, of hamster in vivo and in vitro, comparison of the effects of various drugs, 580

Polyethylene glycol ethers, with known effects on experimental tuberculosis, effects on lipase activity of macrophages, 190

Polyphloretin phosphate, effect on the vasodepressor response to prostaglandins in the anaesthetized rabbit, 236

Potassium, bretylium potentiation of the contractor responses of isolated rabbit aortic strips to, 210

—, effect of drugs used in status-epilepticus on fluxes of, in cerebrospinal fluid in the conscious dog, 448P

Potassium chloride, blockade by phenoxybenzamine of the contractor response produced by, in the isolated ileum of the guineapig, 197

Potentials, N, P and LN, of the rabbit superior cervical ganglia, effect of monoamine oxidase inhibition on, 436P

Practolol, effect of, on limb blood flow in anaesthetized patients with cardiac dysrhythmias, 469P

----, effects on isolated skeletal and cardiac muscle, 453P

Pregnenolone, in vivo production by the ovary of the rat, 560

Pressor substances, responses to, in conscious and anaesthetized cats, 668

Prilocaine, neuromuscular actions of, 431P Probenecid, effect on the excretion of barbiturates in rat bile, 161 Proceedings of the British Pharmacological Society, Oxford, 15-17 September, 1971, 415P

Progestagen, effects on the concentrations of plasma kiningen in the female rat, 421P

Progesterone, and metabolites, *in vivo* production by the ovary of the rat, 560

—, effect on formation in rabbit ovaries in the presence of luteinizing hormone or cyclic AMP, 794

Pronethanol, effect on the depletion of brain glycogen by amphetamine, 504

—, effects on body temperature, 543

Propoxyphene, effects of, on the *in vivo* release of acetylcholine from the cerebral cortex of the cat, 53

Propranolol, D- and D,L-, effect on the depletion of brain glycogen by amphetamine, 504

---, effect of, on dopamine-induced pancreatic secretion in the dog, 739

—, effects on body temperature, 543

—, effects on isolated skeletal and cardiac muscle, 453P

—, pharmacology of its metabolite 4-hydroxy-propranolol, 222

----, role of adrenergic neurone blockade in the hypotensive action of, 287

Prostaglandin F_{2a}, selective blockade of the vasodepressor response to, in the anaesthetized rabbit, 236

Prostaglandins, inhibition of synthesis augments the effects of sympathetic nerve stimulation in the cat spleen, 419P

—, interaction between gonadotrophins and, in the rabbit ovary, 794

—, rabbit-aorta contracting substance may be a precursor, 420P

Proteases, trypsin-like, tissue concentrations of, in mammalian submaxillary glands, 784

Protein synthesis, comparison of effects exerted by isomers and analogues of (\pm) -2,3-dehydroemetine on, in rat liver, 456P

Pruritus, concentration of chloroquine in skin of patients with, 335

Pulmonary vein, bovine, pharmacology of anaphylaxis in vitro, 302

Pyrazole, effects of interaction with ethanol in

laboratory rodents, 67

Pyrilamine, effect on catabolism of histamine in various tissues of rats and mice, 349

Pyrovalerone, effect on a-methyl-p-tyrosine-induced catalepsy in rats, 877

Q

Quaternary N-substituted choline esters, neuromuscular blocking activity of, 107 Quazodine (MJ1988), actions on smooth muscle,

612

R

Rabbit-aorta contracting substance, a possible prostaglandin precursor, 420P

Receptor blocking agents, effect on the depletion of brain glycogen by amphetamine, 504

Renal insufficiency, use of a digital computer programme as a guide to the prescribing of kanamycin in patients with, 481P

Reserpine, effect of, on the activity of adrenal enzymes involved in the synthesis of adrenaline, 819

—, supersensitivity of central noradrenaline receptors after, 443P

S

Salbutamol, comparison of the bronchodilator and cardiovascular actions of isoprenaline, orciprenaline and, in guinea-pigs and dogs, 624

-, effects on the cardiovascular system of anaesthetized dogs, compared with those of isoprenaline, orciprenaline and isoetharine, 23 , pharmacokinetics of inhaled, in asthmatic

patients, 466P

, resistance to, after prolonged administration,

studied in man and animals, 389

Saliva, human parotid and mixed, and human serum, comparison of levels of phenoxymethylpenicillin, ampicillin, cloxacillin and cephalexin, 243

Saxitoxin, actions on the motor end-plate of frog muscle compared with those of tetrodotoxin,

Schultz-Dale reaction, in bovine pulmonary vein,

Scrapie, natural, accumulation of neurophysin in the median eminence and cerebellum of sheep with, 423P

Serum, human, and mixed and parotid saliva, comparison of levels of phenoxymethylpenicillin, ampicillin, cloxacillin and cephalexin, 242

Serum protein, specificity and degree of interaction with fusidic acid, 151

Sinoatrial activity, effect of McN-A-343 in dog heart, 675

Skin, of rabbits and man, concentrations of chloroquine in, 335

Sleep, produced by clonidine (2-(2,6-dichlorophenylamino)-2-imidazoline hydrochloride), 685

Smooth muscle, actions of quazodine (MJ1988) on,

, effects of isoprenaline and phenylephrine on energy-rich phosphate compounds and glucose-6-phosphate in, 593

, inhibition of the longitudinal muscle of rabbit duodenum, 428P

, non-innervated, uptake of noradrenaline by,

, the rat anococcygeus, a new densely innervated preparation, 430P

Sodium meclofenamate, effect on anaphylaxis in the bovine pulmonary vein, 302

Sodium pentobarbitone, effect on the potassium fluxes of cerebrospinal fluid in the conscious dog, 448P

Sodium thiopentone, effect on the potassium fluxes of cerebrospinal fluid in the conscious dog, 448P

Status-epilepticus, effect of drugs used in, on the potassium fluxes of cerebrospinal fluid in the conscious dog, 448P

Steroidogenesis, interaction between prostaglandins and gonadotrophins in the rabbit ovary,

Steroids, effects of topical application on contact sensitivity in the mouse, 403

-, with central depressant actions, in vivo production by the ovary of the rat, 560

Suberyl dicholine diiodide, effectiveness compared with that of nikethamide to replace hypoxic drive in respiratory depression, 449P

Submaxillary gland, mammalian, tissue concentration of kallikrein, trypsin-like proteases and amylase in, 784

Succinic semialdehyde, hypnogenic properties compared with those of its fatty acid derivatives, 439P

Sulphadoxine, effect of phenylbutazone on total and free plasma concentration of, in sheep in vivo, 312

, source of, susceptible to displacement by injection of phenylbutazone in sheep in vivo, 325

Sulphonamides, pharmacokinetic interaction between phenylbutazone and sulphadoxine in sheep in vivo, 312

Surfactants, non-ionic, effects that modify experimental tuberculosis on lipase activity of macrophages, 190

Suxamethonium, pharmacological interaction with lorazepam, 434P

, relative importance of the enzymic hydrolysis of, in plasma and tissues of the car, 341

Sympathectomy, production in adult animals using guanethidine, 295

Sympathetic ganglia, cat, 3H-noradrenaline-accumulating ability of cholinergic nerve terminals in, 555

Sympathetic nerve, effects of stimulation augmented by inhibition of prostaglandin synthesis, 419P

Sympathomimetic amines, comparison of effects on the cardiovascular system of anaesthetized dogs, 23

, effect of dopamine and L-dopa on pancreatic secretion in the dog, 739

, lack of relationship between myocardial cyclic AMP concentrations and inotropic

effects of, 757 Sympathomimetic drugs, and their antagonists. effects on afterdischarges elicited in chronically isolated slabs of cerebral cortex, 696

Teeth, implantation of electrodes in the dentine of an upper canine tooth in the dog, 476P

Terbutaline, resistance to, after prolonged administration studied in man and animals, 389 Testosterone, effects of, on the concentrations of plasma kiningen in the female rat, 421P

Tetracosactrin, effect of prolonged treatment with. on hypothalamo-pituitary-adrenal function in the rat, 804

Tetrahydronaphthylamine, role of monoamines in temperature changes induced by, in the rat, 1

Tetrodotoxin, actions on the motor end-plate of frog muscle compared with those of saxitoxin,

, effect of, on dopamine-induced pancreatic secretion in the dog, 739

Theophylline, actions on smooth muscle compared with those of quazodine (MJ1988), 612

, interaction with adenosine at the neuromuscular junction, 432P

, mechanisms of potentiation of contractor responses to catecholamines by, in aortic strips, 379

Thermal injury, effect on the kinin system in rabbit hind limb lymph, 127

Thermoregulation, effects of adrenoceptor blocking

agents on body temperature, 543 -, evidence for the presence of α -adrenoceptors in the central thermoregulatory mechanism of rabbits, 497

, role of noradrenaline and 5-hydroxytryptamine in tetrahydronaphthylamine-induced temperature changes in the rat, 1

Thiopentone sodium, pharmacological interaction with lorazepam in mice and cats, 434P

Thrombosis, anti-thrombotic activity of a benzo-[c][1,6]naphthyridine, 460P

Thymoxamine, influence of pH on absorption through buccal mucosa in man, 479P

Tolazoline, effect on afterdischarges elicited in chronically isolated slabs of cerebral cortex,

Tolvl analogues, of 1,1-dimethyl-4-phenylpiperazinium, nicotinic stimulant action of, 370

Toxicity trials, routine assessment of drug-related induction of liver microsomal enzymes during,

Tranquillizers, pharmacological interaction of lorazepam with thiopentone sodium and skeletal neuromuscular blocking agents, 434P

Transmission, adrenergic, microinjection study of the role of, in the control of the secretion of antidiuretic hormone, 444P

Transmitter, effect of flow-stop on noradrenaline release from normal spleens and spleens treated with cocaine, phentolamine or phenoxybenzamine, 359

effect of the monoamine oxidase inhibitor pargyline on the uptake of labelled noradrenaline by the cat spleen, 451P

, release of acetylcholine and 14C-glycine from the cat spinal cord in vivo, 441P, uptake of ¹⁴C-L-glutamate by rat retina,

442P

Trasicor, effects on body temperature, 543

Triamcinolone acetonide, inhibition of contact sensitivity in the mouse by topical application of, 403

4-Tropolone-acetamide, changes in release of [3H]noradrenaline from field stimulated rat iris induced by, 97

Trypsin-like proteases, tissue concentrations of, in mammalian submaxillary glands, 784

Tryptophan, distribution in brain and body fluids in dogs compared with that of tyrosine, 724

L-Tryptophan, effect of intravenous infusion on the metabolism of dopamine and 5-hydroxyindoles in brain and cerebrospinal fluid, 715

inhibitory effect of chlorpromazine on the hyperactivity and hyperpyrexia produced by, in rats treated with a monoamine oxidase inhibitor, 856

Tuberculosis, experimental, effects of non-ionic surfactants with known effects on, on lipase activity of macrophages, 190

Tumours, vascular changes in, after treatment with ICRF 159, 457P

Turning behaviour, as an index of the action of amphetamines and ephedrines on central dopamine-containing neurones, 658

Tyramine, bretylium potentiation of the contractor responses of isolated rabbit aortic strips to,

effect on afterdischarges elicited in chronically isolated slabs of cerebral cortex, 696

, responses to intravenous injections in conscious and anaesthetized cats, 668

Tyrosine, distribution in brain and body fluids in dogs compared with that of tryptophan, 724

, effect of, on the release by nerve stimulation of noradrenaline and dopamine from cat spleen, 86

Tyrosine hydroxylase, effect of chronic administration of nicotine on concentrations in rat adrenals, 250

, effect of reserpine on activity in adrenal gland, 819

U

Ureter, guinea-pig, effects of catecholamines on the electrical and mechanical activity of, 429P Urethane, responses to pressor substances in conscious cats and cats anaesthetized with,

Urine, renal clearance of inulin in rats at different flow rates of, 874

Vascular reactivity, in hypertension induced by desoxycorticosterone, 427P

Vas deferens, mouse, pharmacological observations on, 430P

Vasoconstriction, effect on the rat foetus of interruption of uterine blood flow by, 270

, mesenteric, after endotoxin administration in cats pretreated with aspirin, 259

Vasopressin, responses of the rat foetus to maternal injections of, 270

Venom, of Bothrops jararaca, inhibition by peptides from of angiotensin I converting enzyme, 252

WY 22811, (m-(3-ethyl-1 methylhexahydro-1Hazepin-3-yl) phenol hydrochloride), a new analgesic compound, studies of, 462P

Xylyl analogues, of 1,1-dimethyl-4-phenylpiperazinium, nicotinic stimulant action of, 370

BRITISH JOURNAL OF PHARMACOLOGY

THE INTERNATIONAL SYSTEM OF UNITS (SI)

The British Journal of Pharmacology uses the symbols recommended in the SI (Système Internationale) (see Symbols, Signs and Abbreviations Recommended for British Scientific Publications (1969) (London: The Royal Society: price 35p.)). It is the policy of the Editorial Board to adopt SI units, although the use of certain non-SI units will for the time being be permitted. Full details of the changes involved will be published in a forthcoming "Instructions to Authors". The following is a list (a) of some of the commoner units with their recommended symbols, (b) of some non-SI units which may still be used, and (c) of units which will no longer be acceptable.

(a) SI units with recommended symbols

Correct symbol Unit kilogramme kg second, millisecond s ms mole, millimole, micromole, mol mmol μmol nanomole, picomole nmol pmol metre, centimetre, millimetre, m cm mm micrometre μm Hertz Hz

(b) Some permitted non-Si units

ångström
gramme
gminute
hour
h

molarity (mol/litre)

calorie cal (4.184 J) (Conversion factor to be given as a footnote at first

citation or in Methods)

millimetre of mercury mmHg (1.333 mbar) (Conversion

factor to be given as a footnote at

first citation or in Methods)

millibar mbar poise P curie Ci

litre

1. (where there is danger of confusion between the numeral '1' and the

letter 'l', 'litre' should be written in full, and always at the end of a

sentence)
ml μl
°C

millilitre, microlitre degree Celsius

(c) Units no longer acceptable

inch, foot, pound, pound per square inch, °F.

Expressions such as cycles per second (c/s) will no longer be accepted. Frequencies should be expressed in the appropriate approved symbols: thus a stimulation frequency should be given in Hz (irregular or occasional events should be given per unit time, e.g. s⁻¹, h⁻¹. When there is more than one solidus in an expression, parentheses should be used to eliminate ambiguity, e.g. (mg/kg)/day.

Instructions to Authors

- 1. Manuscripts (2 copies) should be typed in double spacing on one side of paper not larger than foolscap $(33 \times 20.5 \text{ cm})$. There should be a separate title page giving the names and addresses of the authors in alphabetical order. A short title containing not more than 40 letters should also be suggested.
- 2. A short summary of results and conclusions (arranged in numbered paragraphs), tables and legends to figures should be typed on separate sheets of paper.
- 3. References should be collected at the end of the paper. They should include the authors' names, year of publication, title of article, title of publication (abbreviated in accordance with the fourth edition of the World List of Scientific Periodicals), volume number and first and last page numbers. References to books should, in addition, include the names of editors, the edition number, where appropriate, and the town of origin and name of publisher.
- 4. Figures should NOT BE LARGER THAN FOOLSCAP $(33 \times 20.5 \text{ cm})$ and may be in the form of original drawings, recorded tracings or high quality photographic prints made from them. Negative prints of kymograph tracings (black on white) should be provided and both ordinates and abscissae should be calibrated.
- 5. Lettering on figures should be inserted in PENCIL. Symbols which are to appear in figures or legends should be chosen from the following:



- 6. **Photographs and photomicrographs** should be printed on glossy paper and should be larger than the size required for reproduction.
- 7. **Tables** ideally should not have more than 84 characters to a line (counting spaces between columns as 4 characters) and certainly not more than 130 characters to a line, unless absolutely unavoidable.
- 8. An abstract of about 100 words suitable for inclusion in *International Abstracts* of *Biological Sciences* should be typed on a separate sheet, giving the author's name and address and the title of the paper.

General remarks. A recent issue of the journal is a good guide to style. Papers are accepted only if accompanied by a statement that they have not and will not be published in whole or in part in any other Journal.

Two page proofs will be supplied, one of which may be retained by the authors. The other should be corrected immediately and returned to the Press Editor. Corrections should be kept to a minimum.

Twenty-five reprints will be supplied to the authors free of charge. Additional reprints can be purchased. A reprint order form, which should be returned promptly, will be sent out with the proofs. No reprints of abstracts are supplied.

BRITISH JOURNAL OF PHARMACOLOGY December 1971 Volume 43 Number 4

Systematic Pharmacology

afterdischarges elicited in chronically isolated slabs of cerebral cortex.

amines and their amino-acid precursors in rat brain.

HOLMAN, R. B., SHILLITO, ELIZABETH E. and VOGT, MARTHE. Sleep produced by clonidine, (2-(2,6-dichlorophenylamino)-2-imidazoline hydrochloride). (SP2) KRIP, G. and VAZQUEZ, J. Effects of some sympathomimetic drugs and their antagonists on

PLEUVRY, BARBARA J. and Tobias, M. A. Comparison of the antinociceptive activities of physostigmine, oxotremorine and morphine in the mouse. (SP2, DM2)
Moir, A. T. B. Interaction in the cerebral metabolism of the biogenic amines: Effect of intravenous infusion of L-tryptophan on the metabolism of dopamine and 5-hydroxyindoles in

Moir, A. T. B. Interaction in the cerebral metabolism of the biogenic amines: Effect of intravenous infusion of L-tryptophan on tryptophan and tyrosine in brain and body fluids.

732 LEONARD, B. E. and SHALLICE, SUSAN A. Effect of p-nitromethylamphetamine on biogenic amines and their amino-acid precursors in rat brain. (SP2, PK2, AP1)

(ŠP2, AP1)

(SP2, PK1, PK2)

(SP2, PK1, PK2)

(DM, AP3)

page

685

696

706

brain and cerebrospinal fluid.

885 Index to Volume 43

/39	the dog. (SP3, AP1)							
	Autopharmacology							
747	ANDÉN, NE. and Fuxe, K. A new dopamine-β-hydroxylase inhibitor: effects on the nor-adrenaline concentration and on the action of L-DOPA in the spinal cord. (API)							
757	BENFEY, B. G. Lack of relationship between myocardial cyclic AMP concentrations and inotropic effects of sympathomimetic amines. (API)							
764	FEUERSTEIN, GIORA and GUTMAN, YEHUDA. Preferential secretion of adrenaline or noradrenaline by the cat adrenal <i>in vivo</i> in response to different stimuli. (API, SPI)							
776	MALIK, K. U. and McGiff, J. C. Modification by choline of adrenergic transmission in rat mesenteric arteries. (API, SPI)							
784	BHOOLA, K. D. and DOREY, GUNDULA. Kallikrein, trypsin-like proteases and amylase in mammalian submaxillary glands. (AP2)							
794	BEDWANI, J. R. and HORTON, E. W. Interaction between prostaglandins and gonadotrophins in the rabbit ovary. (AP2, AP3)							
804	HODGES, J. H. and MITCHLEY, SUSAN. Effect of prolonged treatment with tetracosactrin on hypothalamo-pituitary-adrenal function in the rat. (AP3)							
Pharmacokinetics								
814	GORIDIS, C. and NEFF, N. H. Monoamine oxidase in sympathetic nerves: a transmitter specific enzyme type. (PK2)							
819	BHAGAT, B., BURKE, W. J. and DAVIS, J. W. Effect of reserpine on the activity of adrenal enzymes involved in the synthesis of adrenaline. (PK2, AP1)							
828	BACHUR, N. R. and HUFFMAN, D. H. Daunorubicin metabolism: estimation of daunorubicin reductase. (PK2, PM, CT)							
834	SNEDDON, J. M. Relationship between internal N ⁺ /K ⁺ and the accumulation of ¹⁴ C-5-hydroxy-tryptamine by rat platelets. (PK3, DM1)							
845	IVERSEN, L. L., JARROTT, B. and SIMMONDS, M. A. Differences in the uptake, storage and metabolism of (+)- and (-)-noradrenaline. (PK3, PK1, AP1)							
	Psychopharmacology							
856	GRAHAME-SMITH, D. G. Inhibitory effect of chlorpromazine on the syndrome of hyperactivity produced by L-tryptophan or 5-methoxy-n,n-dimethyltryptamine in rats treated with a monoamine oxidase inhibitor. (PP, DM1)							
SHORT COMMUNICATIONS								
865	FARA, J. W. Escape from tension induced by noradrenaline or electrical stimulation in isolated mesenteric arteries. (SP1)							
868	MASSINGHAM, R. and SHEVDE, S. Aortic reactivity and electrophysiology in normotensive rats, spontaneously hypertensive rats and rats made hypertensive with desoxycorticosterone plus salt. (SP1)							
871	BRADSHAW, C. M., ROBERTS, M. H. T. and SZABADI, E. Effect of mescaline on single cortical neurones. (SP2, DM2)							
874	BARBER, H. E. and BOURNE, G. R. Determination of the renal clearance of inulin in rats: lowered values at low urine flow rates. (SP3, PK1)							
877	SAYERS, A. and Spencer, P. S. J. Effect of some amphetamine analogues on a-methyl-p-tyrosine-induced catalensy in rats. (PP. SP2, DM2)							
881	CUTHBERT, A. W., IND, P. W. and Wong, P. Y. D. Increased concentrations of cyclic 3',5'- adenosing monophosphate without a physiological response after antidiuretic hormone							