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- 311 OKPAKO, D. T. A dual action of histamine on guinea-pig lung vessels. (AP2, DM2)
- 322 GREEN, K. L. The anti-inflammatory effect of catecholamines in the peritoneal cavity and hind paw of the mouse. (AP2, DM2)
- 333 ERSPAMER, V., FALCONIERI ERSPAMER, G., INSELVINI, M. and NEGRI, L. Occurrence of bombesin and alytesin in extracts of the skin of three European discoglossid frogs and pharmacological actions of bombesin on extravascular smooth muscle. (AP2, SP3)

Pharmacokinetics

- 349 BROWN, D. A. and HALLIWELL, J. V. Intracellular pH in rat isolated superior cervical ganglia in relation to nicotine-depolarization and nicotine-uptake. (PK1, AP1)

Clinical Pharmacology

- 360 BALASUBRAMANIAM, K., MAWER, G. E., POHL, J. E. F. and SIMONS, P. J. G. Impairment of cognitive function associated with hydroxyamylbarbitone accumulation in patients with renal insufficiency. (CP, PP)

Toxicology

- 368 BAJGAR, J. Time course of acetylcholinesterase inhibition in the medulla oblongata of the rat by *O*-ethyl *S*-(2-dimethylaminoethyl) methylphosphonothioate *in vivo*. (TX, DM1)

SHORT COMMUNICATIONS

- 372 BRADLEY, P. B. and DRAY, A. Short-latency excitation of brain stem neurones in the rat by acetylcholine. (SP2, AP1, DM2)
- 375 JONES, G. and PERTWEE, R. G. A metabolic interaction *in vivo* between cannabidiol and Δ^1 -tetrahydrocannabinol. (PK2, SP2, PP)
- 378 HALL, MOIRA T. Dependence of β -adrenoceptor mediated mechanical effects on the glycogen concentration in the rabbit isolated small intestine. (DM1, AP1)
- 382 NAYLER, WINIFRED G. Comparative partial agonist activity of β -adrenoceptor antagonists. (DM2, SP1)

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- 385 SIMPSON, CHARLES F. Sotalol for the protection of turkeys from the development of β -amino-propionitrile-induced aortic ruptures. (SP1)
 391 BOAKES, R. J., BRADLEY, P. B. and CANDY, J. M. A neuronal basis for the alerting action of (+)-amphetamine. (SP2, DM2)

Autopharmacology

- 404 GILLESPIE, J. S. The rat anococcygeus muscle and its response to nerve stimulation and to some drugs. (AP1)
 417 DRAKONTIDES, ANNA B. and GERSHON, MICHAEL D. Studies of the interaction of 5-hydroxy-tryptamine and the perivascular innervation of the guinea-pig caecum. (AP1, PK3)
 435 MEEK, JAMES L. and NEFF, NORTON H. Fluorometric estimation of 4-hydroxy-3-methoxy-phenylethyleneglycol sulphate in brain. (AP1, SP2)
 442 ERSPAMER, V., MELCHIORRI, P. and SOPRANZI, N. The action of bombesin on the systemic arterial blood pressure of some experimental animals. (AP2, SP1)
 451 ECKENFELS, A. and VANE, J. R. Prostaglandins, oxygen tension and smooth muscle tone. (AP2, PK2)
 463 REILLY, MARGARET A. and SCHAYER, R. W. Effect of glucocorticoids on histamine metabolism in mice. (AP2)
 470 ROSA, A. T., ROTHSCHILD, A. M. and ROTHSCHILD, Z. Fibrinolytic activity evoked in the plasma of the normal and adrenalectomized rat by cellulose sulphate. (AP3, AP2, SP3)

Pharmacokinetics

- 476 BELAIR, E. J., COHEN, A. I. and YELNOSKY, J. Renal excretion of metolazone, a new diuretic. (PK1, SP3)
 480 ALLEN, G. S., RAND, M. J. and STORY, D. F. Effects of McN-A-343 and DMPP on the uptake and release of ^3H -noradrenaline by guinea-pig atria. (PK3, AP1, SP1)

Drug Mechanisms

- 490 CHRISTMAS, A. J., COULSON, C. J., MAXWELL, D. R. and RIDDELL, D. A comparison of the pharmacological and biochemical properties of substrate-selective monoamine oxidase inhibitors. (DM1, SP2, PP)
 504 ABDEL-AZIZ, A. and BAKRY, N. The nature of the adrenoceptors in the post-partum rat uterus. (DM2, AP1)
 510 CHAHL, LORIS A. A structure-activity study of sympathomimetic amines on the beta-adrenoceptors of guinea-pig trachea. (DM2, AP1, PM)
 519 ATKINSON, J. and LADINSKY, H. A quantitative study of the anticholinergic action of several tricyclic antidepressants on the rat isolated fundal strip. (DM2, AP1, SP2)

Psychopharmacology

- 525 CAPPELL, HOWARD, GINSBERG, RONALD and WEBSTER, C. D. Amphetamine and conditioned 'anxiety'. (PP)
 532 ASHTON, HEATHER, SAVAGE, R. D., THOMPSON, J. W. and WATSON, D. W. A method for measuring human behavioural and physiological responses at different stress levels in a driving simulator. (PP)
 546 ASHTON, HEATHER, SAVAGE, R. D., TELFORD, ROSEMARY, THOMPSON, J. W. and WATSON, D. W. The effects of cigarette smoking on the response to stress in a driving simulator. (PP)

SHORT COMMUNICATION

- 557 LADER, M. H. and TYRER, P. J. Central and peripheral effects of propranolol and sotalol in normal human subjects. (PP)

Systematic Pharmacology

- 561 ALLEN, J. D., KOFI EKUE, J. M., SHANKS, R. G. and ZAIDI, S. A. The effect of Kö 1173, a new anticonvulsant agent on experimental cardiac arrhythmias. (SP1)
- 574 BOWMAN, W. C. and RODGER, I. W. Actions of the sympathomimetic bronchodilator, rimiterol (R798), on the cardiovascular, respiratory and skeletal muscle systems of the anaesthetized cat. (SP1, SP3, AP1)
- 584 JORDAN, L. M. and PHILLIS, J. W. Acetylcholine inhibition in the intact and chronically isolated cerebral cortex. (SP2, AP1)

Autopharmacology

- 596 BHARGAVA, K. P., MISHRA, N. and TANGRI, K. K. An analysis of central adrenoceptors for control of cardiovascular function. (AP1, SP1, SP2)
- 603 ENDOH, M., HASHIMOTO, K. and KIMURA, T. Effects of perivascular nerve stimulation on the contraction and automaticity of the blood-perfused canine papillary muscle. (AP1, SP1)
- 616 FOZARD, J. R. and MUSCHOLL, E. Effects of several muscarinic agonists on cardiac performance and the release of noradrenaline from sympathetic nerves of the perfused rabbit heart. (AP1, PK3, DM2)
- 630 ELIASH, SARAH and WEINSTOCK, MARTA. Factors influencing the adrenergic neurone blocking action of propranolol. (AP1)
- 635 BARTLET, A. L. Apparent differences between the effects of hyoscine *in vivo* and *in vitro* on the responses of chicken oesophagus to nerve stimulation. (AP1)

Pharmacokinetics

- 638 BALLINGER, B., BROWNING, M., O'MALLEY, K. and STEVENSON, I. H. Drug-metabolizing capacity in states of drug dependence and withdrawal. (PK2, CP, DM2)

Drug Mechanisms

- 644 BUTLER, K. and LEWIS, G. P. The effect of anti-inflammatory agents on the changes in local lymph after thermal injury. (DM1)
- 651 NORTHOVER, B. J. The effects of indomethacin on calcium, sodium, potassium and magnesium fluxes in various tissues of the guinea-pig. (DM1)
- 660 FARMER, J. B., KENNEDY, I., LEVY, G. P. and MARSHALL, R. J. Pharmacology of AH 5158; a drug which blocks both α - and β -adrenoceptors. (DM2, SP1, SP3)

Miscellaneous

- 676 CURREY, H. L. F. and FOWLER, P. D. A study of clofazimine in the rat. (M)

SHORT COMMUNICATIONS

- 682 BHARGAVA, K. P., BHARGAVA, RANI and GUPTA, M. B. Central adrenoceptors concerned in the release of adrenocorticotrophic hormone. (SP2, AP1, DM2)
- 684 COTTRELL, G. A., MACON, J. and SZCZEPANIAK, A. C. Glutamic acid mimicking of synaptic inhibition on the giant serotonin neurone of the snail. (DM1)
- 689 Bose, D. and INNES, I. R. Influence of sodium pumping on smooth muscle contraction. (M)