

# INDEX TO VOLUME 81

## AUTHOR INDEX

### A

- ABIKO, Y., NISHIMURA, T. & SAKAI, K. Nicorandil attenuates myocardial acidosis during coronary occlusion in dogs, 409
- ABRAHAMSSON, T., ALMGREN, O. & CARLSSON, L. Wash-out of noradrenaline and its metabolites by calcium-free reperfusion after ischaemia: support for the concept of ischaemia-induced noradrenaline release, 22
- ABRAMOVICH, D.R., PAGE, K.R. & PARKIN, A.M.L. The effect of prostaglandin D<sub>2</sub> on the blood vessels of the perfused isolated cotyledon of the human placenta, 16
- ALMAZAN, G., AUNIS, D., GARCIA, A.G., MON-  
TIEL, C., NICHOLÁS, G.P. & SÁNCHEZ-GARCIA, P. Effects of collagenase on the release of [<sup>3</sup>H]-noradrenaline from bovine cultured adrenal chromaffin cells, 599
- ALMGREN, O. *see* ABRAHAMSSON, T., 22
- ALSTER, P. & WENNMALM, Å., Effect of nicotine on the formation of prostacyclin-like activity and thromboxane in rabbit aorta and platelets, 55
- ANDERSSON, K.-E., LARSEN, B. & SJÖGREN, C. Characterization of the  $\alpha$ -adrenoceptors in female rabbit urethra, 293
- ANGUS, J.A. & LEW, M.J. Phentolamine – an unexpected agonist in the rabbit, 423
- ANGUS, J.A., BOBIK, A., JACKMAN, G.P., KOPIN, I.J. & KORNER, P.I. Role of auto-inhibitory feed-back in cardiac sympathetic transmission assessed by simultaneous measurements of changes in <sup>3</sup>H-efflux and atrial rate in guinea-pig atrium, 201
- ANNO, T., FURUTA, T., ITOH, M., KODAMA, I., TOYAMA, J. & YAMADA, K. Effects of bepridil on the electrophysiological properties of guinea-pig ventricular muscles, 589
- , Electromechanical effects of bepridil on rabbit isolated hearts, 41
- ANTONJUK, D.J., BIRDSALL, B., CHEUNG, H.T.A., CLORE, G.M., FEENEY, J., GRONENBORN, A., ROBERTS, G.C.K. & TRAN, T.Q. A <sup>1</sup>H n.m.r. study of the role of the glutamate moiety in the binding of methotrexate to *Lactobacillus casei* dihydrofolate reductase, 309
- AUNIS, D. *see* ALMAZAN, G., 599
- AUTORE, G., CAPASSO, F. & MASCOLO, N. Phenolphthalein stimulates the formation of histamine, 5-hydroxytryptamine and postaglandin-like material by rat jejunum, ileum and colon, 347

### B

- BACK, D.J., SUTCLIFFE, F. & TJIA, F.J. Tolbutamide as a model drug for the study of enzyme induction and enzyme inhibition in the rat, 557

- BAKER, D.J., DREW, G.M. & HILDITCH, A. Pre-synaptic  $\alpha$ -adrenoceptors: do exogenous and neuronally released noradrenaline act at different sites? 457
- BELL, C., GILLESPIE, J.S. & MACRAE, I.M. Release of noradrenaline and dopamine by nerve stimulation in the guinea-pig and rat vas deferens, 563
- BELL, G.D., CLEGG, R.J., ELLIS, W.R., MIDDLETON, B. & WHITE, D.A. The effects of 3,5,5-trimethylcyclohexanol on hepatic cholesterol synthesis, bile flow and biliary lipid secretion in the rat, 183
- BENNETT, T. & GARDINER, S.M. Neonatal capsaicin treatment impairs vasopressin-mediated blood pressure recovery following acute hypotension, 341
- BIRDSALL, B. *see* ANTONJUK, D.J., 309
- BOBIK, A. *see* ANGUS, J.A., 201
- BORDA, E.S., DE BRACCO, M.M., FINIASZ, M. & STERIN-BORDA, L. Lymphocytes sensitize rat isolated atria to the inotropic and chronotropic effects of sodium arachidonate, 75
- BOTTOMLEY, K.M.K., LEWIS, S., RISING, T.J., STEWARD, A. A new *in vivo* method for the measurement of repetitive anaphylactic responses in the guinea-pig, 195
- BOWMAN, A. & DRUMMOND, A.H. Cyclic GMP mediates neurogenic relaxation in the bovine retractor penis muscle, 665
- BOWMER, C.J., CLARKE, A., COMER, M.B. & YATES, M.S. Vascular reactivity in rats with glycerol-induced acute renal failure, 69
- BRADLEY, D.J. & RICHARDS, C.D. Temperature-dependence of the action of nerve blocking agents and its relationship to membrane-buffer partition coefficients: thermodynamic implications for the site of action of local anaesthetics, 161
- BURKA, J.F. & SAAD, M.H. Mediators of arachidonic acid-induced contractions of indomethacin-treated guinea-pig airways: leukotrienes C<sub>4</sub> and D<sub>4</sub>, 465
- BURNSTOCK, G., HILLS, J.M. & HOYLE, C.H.V. Evidence that the P<sub>1</sub>-purinoceptor in the guinea-pig taenia coli is an A<sub>2</sub>-subtype, 533

### C

- CAPASSO, F. *see* AUTORE, G., 347
- CARLSSON, L. *see* ABRAHAMSSON, T., 22
- CARRAWAY, R.E., COCHRANE, D.E., GRANIER, C., KITABGI, P., LEEMAN, E. & SINGER, E.A. Parallel secretion of endogenous 5-hydroxytryptamine and histamine from mast cells stimulated by vasoactive peptides and compound 48/80, 227
- CENA, V., GARCIA, A.G., MONTIEL, C. & SÁNCHEZ-GARCIA, P. Uptake of [<sup>3</sup>H]-nicotine and [<sup>3</sup>H]-noradrenaline by cultured chromaffin cells, 119

- CHERUBINI, E., MORITA, K. & NORTH, R.A. Morphine augments calcium-dependent potassium conductance in guinea-pig myenteric neurones, 617
- CHEUNG, H.T.A. *see* ANTONYUK, D.J., 309
- CLARKE, A. *see* BOWMER, C.J., 69
- CLAY, T.P. & FENSKE, D.C. The effects of arachidonic acid and non-steroidal anti-inflammatory drugs on intrapulmonary airways of the guinea-pig, 335
- CLEGG, R.J. *see* BELL, G.D., 183
- CLORE, G.M. *see* ANTONJUK, D.J., 309
- COCHRANE, D.E. *see* CARRAWAY, R.E., 227
- COKER, S.J. & PARRATT, J.R. The effects of timolol on arrhythmias and prostanoid release during canine myocardial ischaemia and reperfusion, 675
- COLLIER, J.G. & FULLER, R.W. Capsaicin inhalation in man and the effects of sodium cromoglycate, 113
- COLLIS, M.G., KEDDLE, J.R. & TORR, S.R. Evidence that the positive inotropic effects of the alkylxanthines are not due to adenosine receptor blockade, 401
- COMER, M.B. *see* BOWMER, C.J., 69

## D

- DART, A.M., DIETZ, R., HIERONYMUS, K., KÜBLER, W., MAYER, E., STRÖMIG, & STRASSER, R. Effects of  $\alpha$ - and  $\beta$ -adrenoceptor blockade on the neurally evoked overflow of endogenous noradrenaline from the rat isolated heart, 475
- DASCOMBE, M.J. Evidence that cyclic nucleotides are not mediators of fever in rabbits, 583
- DAWSON, C.A., LINEHAM, J.H., RICKABY, D.A. & ROERIG, D.L. Influence of plasma protein on the inhibitory effects of indocyanine green and bromocresol green on pulmonary prostaglandin  $E_1$  extraction, 449
- DE BRACCO, M.M. *see* BORDA, E.S., 75
- DÉSARMENIEN, M., FELTZ, P., OCCHIPINTI, G., SANTANGELO, F. & SCHLICHTER, R. Coexistence of GABA<sub>A</sub> and GABA<sub>B</sub> receptors on A8 and C primary afferents, 327
- DIETZ, R. *see* DART, A.M., 475
- DREW, G.M. *see* BAKER, D.J., 457
- DRUMMOND, A.H. *see* BOWMAN, A., 665

## E

- EGLÈME, C., GODFRAIND, T. & MILLER, R.C. Enhanced responsiveness of rat isolated aorta to clonidine after removal of the endothelial cells, 16
- ELLIS, W.R. *see* BELL, G.D., 183
- ENDO, Y. Induction of hypoglycaemia and accumulation of 5-hydroxytryptamine in the liver after the injection of mitogenic substances into mice, 645
- ENGBERG, I., FLATMAN, J.A. & LAMBERT, J.D.C. The response of cat spinal motoneurons to the intracellular application of agents with local anaesthetic action, 215
- ENOUF, J. & LÉVY-TOLEDANO, S. Relationship between structure of phenothiazine analogues and their activity on platelet calcium fluxes, 509

## F

- FADEN, A.I. & JACOBS, T.P. Dynorphin-related peptides cause motor dysfunction in the rat through a non-opiate action, 271
- FAN, T.-P.D. & LEWIS, G.P. Effects of cyclosporin A and inhibitors of arachidonic acid metabolism on blood flow and cyclo-oxygenase products in rat skin allografts, 361
- FEENEY, J. *see* ANTONJUK, D.J., 309
- FELTZ, P. *see* DÉSARMENIEN, M., 327
- FENSKE, D.C. *see* CLAY, T.P., 335
- FINIASZ, M. *see* BORDA, E.S., 75
- FINNEN, M.J. & HASSALL, K.A. Inhibitory effects of centrally acting drugs on the neonatal imprinting of sex differences in the hepatic metabolism of a demethylated epoxide in the rat, 283
- FLATMAN, J.A. *see* ENGBERG, I., 215
- FONTAINE, J., GRIVEGNEE, A. & REUSE, J. Adrenoceptors and regulation of intestinal tone in the isolated colon of the mouse, 231
- FÖRSTERMANN, U., HERTTING, G., NEUFANG, B. The importance of endogenous prostaglandins other than prostacyclin, for the modulation of contractility of some rabbit blood vessels, 623
- FOSTER, R.W., OKPALUGO, B.I. & SMALL, R.C. Antagonism of  $Ca^{2+}$  and other actions of verapamil in guinea-pig isolated trachealis, 499
- FULLER, R.W. *see* COLLIER, J.G., 113
- FRITSCHKA, E., GOTZEN, R., KITTLER, R. & SCHÖNESHÖFER, M. Effects of metoprolol on 24-hour urinary excretion of adrenal steroids and kallikrein in patients with essential hypertension, 245
- FURUTA, *see* ANNO, T., 41
- , *see* ANNO, T., 589

## G

- GALLENKÄMPER, W., RÜCKER, W. & SCHRÖR, K. Cardioprotective actions of pentoxifylline in an animal model of acute myocardial ischaemia, 575
- GARCIA, A.G. *see* ALMAZAN, G., 599
- , *see* CEÑA, V., 119
- GARDINER, S.M. *see* BENNETT, T., 341
- GILLESPIE, J.S. *see* BELL, C., 563
- GODFRAIND, T. *see* EGLÈME, C., 16
- GOLDIE, R.G., PATERSON, J.W., SPINA, D. & WALE, J.L. Classification of  $\beta$ -adrenoceptors in human isolated bronchus, 611
- GOTZEN, R. *see* FRITSCHKA, E., 245
- GRANIER, C. *see* CARRAWAY, R.E., 227
- GRIVEGNEE, A. *see* FONTAINE, J., 231
- GRONENBORN, A. *see* ANTONJUK, D.J., 309
- GUIOL, C., MONTASTRUC, J.-L. & MONTASTRUC, P. Naloxone reduces the diuretic responses induced by water, alcohol or congenital lack of vasopressin in rats, 85

## H

- HARRIS, J.B. & TESSERAUX, I. Effects of sea-anemone toxin (ATX-II) on the frequency of miniature endplate potentials at rat neuromuscular junctions, 573

- HASSAL, K.A. *see* FINNEN, M.J., 283  
HAY, D.W.P. & WADSWORTH, R.M. Effects of KCl on  $^{45}\text{Ca}$  uptake and efflux in the rat vas deferens, 441  
HEIRONOMUS, K. *see* DART, A.M., 475  
HEMSWORTH, B.A., SHREEVE, S.M. & VEITCH, G.B.A. Pharmacological action of some cyclic analogues of choline, 685  
HENDERSON, F. & MARSHALL, I.G. The effects of the antibiotic, primycin, on spontaneous transmitter release at the neuromuscular junction, 61  
HERRTING, G. *see* FÖSTERMANN, U., 623  
HILDITCH, A. *see* BAKER, D.J., 457  
HILLS, J.M. *see* BURNSTOCK, G., 533  
HOLZER, P. & SKOFITCH, G. Release of endogenous 5-hydroxytryptamine from the myenteric plexus of the guinea-pig isolated small intestine, 381  
HOYLE, C.H.V. *see* BURNSTOCK, G., 533

# I

- ITOH, M., *see* ANNO, T., 41  
ITSUO, K. *see* ANNO, T., 589

# J

- JACKMAN, G.P. *see* ANGUS, J.A., 201  
JACOBS, T.P. *see* FADEN, A.I., 271  
JONES, R.S.G. & OLPE, H.-P. An increase in sensitivity of rat cingulate cortical neurones to substance P occurs following withdrawal of chronic administration of antidepressant drugs, 659

# K

- KAMIKAWA, Y. & SHIMO, Y. Contractile responses to substance P and related peptides of the isolated muscularis mucosae of the guinea-pig oesophagus, 143  
KARAKI, H., MURAKAMI, K., NAKAGAWA, H. & URAKAWA, N. Nitroglycerine-induced biphasic relaxation in vascular smooth muscle of rat aorta, 387  
KARAKI, H., NAKAGAWA, H. & URAKAWA, N. Comparative effects of verapamil and sodium nitropruside on contraction and  $^{45}\text{Ca}$  uptake in the smooth muscle of rabbit aorta, rat aorta and guinea-pig taenia coli, 393  
KEDDIE, J.R. *see* COLLIS, M.G., 401  
KENAKIN, T.P. The relative contribution of affinity and efficacy to agonist activity: organ selectivity of noradrenaline and oxymetazoline with reference to the classification of drug receptors, 131  
KERRY, P.J. & PATON, C.J. Increased sensitivity of arachidonic acid-induced platelet aggregation in the presence of carbon dioxide, 125  
KERRY, R., SCRUTTON, M.C. & WALLIS, R.B. Mammalian platelet adrenoreceptors, 91  
KITABGI, P. *see* CARRAWAY, R.E., 227  
KITTLER, R. *see* FRITSCHIKA, E., 245  
KIDAMA, I. *see* ANNO, T., 41  
—, *see* ANNO, T., 589  
KOPIN, I.J. *see* ANGUS, J.A., 201

- KORNER, P.I. *see* ANGUS, J.A., 201  
KÜBLER, W. *see* DART, A.M., 475  
KUDO, Y., NIWA, H., TANAKA, A. & YAMADA, L. Actions of picrotoxinin and related compounds on the frog spinal cord: the role of a hydroxyl-group at the 6-position in antagonizing the actions of amino acids and presynaptic inhibition, 373

# L

- LALANNE, C., MIRONNEAU, C., MIRONNEAU, J. & SAVINEAU, J.P. Contractions of rat uterine smooth muscle induced by acetylcholine and angiotensin II in  $\text{Ca}^{2+}$ -free medium, 317  
LAMBERT, J.D.C. *see* ENGBERG, I., 215  
LARSEN, B. *see* ANDERSSON, K.-E., 293  
LEDDA, F. & MANTELLI, L. Difference between the prejunctional effects of phenylephrine and clonidine in guinea-pig isolated atria, 491  
LEEMAN, E. *see* KITABGI, P., 227  
LESLIE, G.C. & PART, N.J. The action of dantrolene sodium on individual fast and slow motor units of the rat anaesthetized with urethane, 351  
LEUNG, K.B.P. & PEARCE, F.L. A comparison of histamine secretion from peritoneal mast cells of the rat and hamster, 693  
LEVY-TOLEDANO, S. *see* ENOUF, J., 509  
LEW, M.J. *see* ANGUS, J.A., 423  
LEWIS, G.P. *see* FAN, T.-P.D., 361  
LEWIS, S. *see* BOTTOMLEY, K.M.K., 195  
LINEHAM, J.H. *see* DAWSON, C.A., 449  
LIVINGSTON, A., LOW, J. & MORRIS, B. Effects of clonidine and xylazine on body temperature in the rat, 189  
LOW, J. *see* LIVINGSTON, A., 189

# M

- MACRAE, I.M. *see* BELL, C., 563  
MAILMAN, D. Morphine-neural interactions on canine intestinal absorption and blood flow, 263  
MALLARKEY, G. & SMITH, G.M. *In vivo* platelet aggregation in the rat: dependence on extracellular divalent cation and inhibition by non-steroidal anti-inflammatory drugs, 31  
MANTELLI, L. *see* LEDDA, F., 491  
MARSHALL, I.G. *see* HENDERSON, F., 61  
MASCOLO, N. *see* AUTORE, G., 347  
MATHY, M.J., THOOLEN, M.J.C., TIMMERMANS, P.B.M.W.M. & VAN ZWIETEN, P.A. Sgd 101/75 cardiovascular effects in various animal preparations; interactions with vascular postjunctional  $\alpha_1$ - and  $\alpha_2$ -adrenoreceptors, 255  
MAYER, E. *see* DART, A.M., 475  
MIDDLETON, B. *see* BELL, G.D., 183  
MILLER, R.C. *see* EGLÈME, C., 16  
MIRONNEAU, C. *see* LALANNE, C., 317  
MITCHELL, M.R., POWELL, T., TERRAR, D.A. & TWIST, V.W. Ryanodine prolongs Ca-currents while suppressing contraction in rat ventricular muscle cells, 13

- , The effects of ryanodine, EGTA and low-sodium on action potentials in rat and guinea-pig ventricular myocytes: evidence for two inward currents during the plateau, 543
- , Strontium, nifedipine and 4-aminopyridine modify the time course of the action potential in cells from rat ventricular muscle, 551
- MONTASTRUC, J.-L. *see* GUIOL, C., 85
- MONTASTRUC, P. *see* GUIOL, C., 85
- MONTIEL, C. *see* ALMAZAN, G., 599
- , *see* CEÑA, V., 119
- MORITA, K. *see* CHERUBINI, E., 617
- MORRIS, B. *see* LIVINGSTON, A., 189
- MOSES, M.A. & SNELL, C.R. The regulation of  $\gamma$ -opiate receptor density on 108CC15 neuroblastoma  $\times$  glioma hybrid cells, 169
- MURAKAMI, K. *see* KARAKI, H., 387

## N

- NAKAGAWA, H. *see* KARAKI, H., 387
- , *see* KARAKI, H., 393
- NANJO, T. Effects of noradrenaline and acetylcholine on electromechanical properties of the guinea-pig portal vein, 427
- NAWRATH, H., SACK, U. & ZONG, X.-G. Antimuscarinic action of quinidine on the heart? A study in myocardial preparations from cat hearts, 103
- NEUFANG, B. *see* FÖSTERMANN, U., 623
- NICHOLÁS, G.P. *see* ALMAZAN, G., 599
- NISHIMURA, T. *see* ABIKO, Y., 409
- NIWA, H. *see* KUDO, Y., 373
- NORTH, R.A. *see* CHERUBINI, E., 617

## O

- O'DONNELL, S.R. & WANSTALL, J.C. The classification of  $\alpha$ -adrenoceptors in isolated ring preparations of coronary arteries, 637
- OCCHIPINTI, G. *see* DÉSARMENIEN, M., 327
- OKPALUGO, B.I. *see* FOSTER, R.W., 499
- OLPE, H.-R. *see* JONES, R.S.G., 659

## P

- PAGE, K.R. *see* ABRAMOVICH, D.R., 16
- PARKIN, A.M.L. *see* ABRAMOVICH, D.R., 16
- PARRATT, J.R. *see* COKER, S.J., 675
- PART, N.J. *see* LESLIE, G.C., 351
- PATERSON, J.W. *see* GOLDIE, R.G., 611
- PATON, C.J. *see* KERRY, P.J., 125
- PEARCE, F.L. *see* LEUNG, K.B.P., 693
- PINNOCK, R.D. The actions of antipsychotic drugs on dopamine receptors in rat substantia nigra, 631
- POWELL, T. *see* MITCHELL, M.R., 13
- , *see* MITCHELL, M.R., 543
- , *see* MITCHELL, M.R., 551

## R

- RANG, H.P. & RYLETT, R.J. The interaction between hexamethonium and tubocurarine on the rat neuromuscular junction, 519
- REUSE, J. *see* FONTAINE, J., 231
- RIBEIRO, J.A. & SEBASTIO, A.M. Antagonism of tetrodotoxin- and procaine-induced axonal blockade by adenine nucleotides in the frog sciatic nerve, 277
- RICHARDS, C.D. *see* BRADLEY, D.J., 161
- RICKABY, D.A. *see* DAWSON, C.A., 449
- RISING, T.J. *see* BOTTOMLEY, K.M.K., 195
- ROBERTS, G.C.K. *see* ANTONJUK, D.J., 309
- RODGER, I.W. & SHAHID, M. Forskolin, cyclic nucleotides and positive inotropism in isolated papillary muscle of the rabbit, 151
- ROERIG, D.L. *see* DAWSON, C.A.
- ROMANDINI, S. & SAMANIN, R. Muscimol injections in the nucleus raphe dorsalis block the antinociceptive effect of morphine in rats, apparent lack of 5-hydroxytryptamine involvement in muscimol's effects, 25
- RÜCKER, W. *see* GALLENKÄMPER, W., 575
- RYLETT, R.J. *see* RANG, H.P., 519

## S

- SAAD, M.H. *see* BURKA, J.F., 475
- SACK, U. *see* NAWRATH, H., 103
- SAKAI, K. *see* ABIKO, Y., 409
- SÁNCHEZ-GARCIA, P. *see* ALMAZAN, G., 599
- , *see* CEÑA, V., 119
- SANTANGELO, F. *see* DÉSARMENIEN, M., 327
- SAMANIN, R. *see* ROMANDINI, S., 25
- SCHLICHTER, R. *see* DÉSARMENIEN, M., 327
- SCHÖMIG, A. *see* DART, A.M., 475
- SCHÖNESHÖFER, M. *see* FRITSCHKA, E., 245
- SCHRÖR, K. *see* GALLENKÄMPER, W., 575
- SCRUTTON, M.C. *see* KERRY, R., 91
- SEBASTIO, A.M. *see* RIBEIRO, J.A., 277
- SHAPIRO, B.H. & SZCZOTKA, S.M. Androgenic repression of hexobarbitone metabolism and action in Crl:CD-1(ICR) BR mice, 49
- SHIMO, Y. *see* KAMIKAWA, Y., 143
- SHREEVE, S.M. *see* HEMSWORTH, B.A., 685
- SINGER, E.A. *see* KITABGI, P., 227
- SJÖGREN, C. *see* ANDERSSON, K.E., 293
- SKOFITCH, G. *see* HOLZER, P., 381
- SMALL, R.C. *see* FOSTER, R.W., 499
- SMITH, G.M. *see* MALLARKEY, G., 31
- SNELL, C.R. *see* MOSES, M.A., 169
- SPINA, D. *see* GOLDIE, R.G., 611
- STERIN-BORDA, L. *see* BORDA, E.S., 75
- STEWART, A. *see* BOTTOMLEY, K.M.K., 195
- STONE, T.W. Excitant activity of methyl derivatives of quinolinic acid on rat cortical neurones, 175
- STRASSER, R. *see* DART, A.M., 475
- SUGRUE, M.F. Antagonism of fenfluramine-induced hyperthermia in rats by some, but not all, selective inhibitors of 5-hydroxytryptamine uptake, 651
- SUTCLIFFE, F. *see* BACK, D.J., 557

- SUZUKI, H. Adrenergic transmission in the dog mesenteric vein and its modulation by  $\alpha$ -adrenoceptor antagonists, 479  
 SZCZOTKA, S.M. *see* SHAPIRO, B.H., 49

## T

- TANAKA, A. *see* KUDO, Y., 373  
 TERRAR, D.A. *see* MITCHELL, M.R., 13  
 —, *see* MITCHELL, M.R., 543  
 —, *see* MITCHELL, M.R., 551  
 TESSERAUX, I. *see* HARRIS, J.B., 573  
 TJIA, J.F. *see* BACK, D.J., 557  
 TODA, N. Endothelium-dependent relaxation induced by angiotensin II and histamine in isolated arteries of dog, 301  
 TORR, S.R. *see* COLLIS, M.G., 401  
 TOYAMA, J. *see* ANNO, T., 41  
 —, *see* ANNO, T., 589  
 TWIST, V.W. *see* MITCHELL, M.R., 13  
 —, *see* MITCHELL, M.R., 543  
 —, *see* MITCHELL, M.R., 551

## U

- URAKAWA, N. *see* KARAKI, H., 393

## V

- VEITCH, G.B.A. *see* HEMSWORTH, B.A., 685

## W

- WADSWORTH, R.M. *see* HAY, D.W.P., 441  
 WALE, J.L. *see* GOLDIE, R.G., 611  
 WALLIS, R.B. *see* KERRY, R., 91  
 WANSTALL, J.C. *see* O'DONNELL, S.R., 637  
 WENNMALM, Å. *see* ALSTER, P., 55  
 WHITE, D.A. *see* BELL, G.D., 183

## Y

- YAMADA, K. *see* ANNO, T., 41  
 —, *see* ANNO, T., 589  
 —, *see* KUDO, Y., 373  
 YATES, M.S. *see* BOWMER, C.J., 69

## Z

- ZONG, X.-G. *see* NAWRATH, H., 103

# SUBJECT INDEX

## A

- Acetylcholine**, effect of primycin on spontaneous release at neuromuscular junction of the garter snake, 61
- , effect on electromechanical properties of the guinea-pig portal vein, 427
  - , effect on histamine secretion in rat and hamster peritoneal mast cells, 693
  - , induction of contractions in rat uterine smooth muscle in calcium-free medium, 317
  - , induction of [<sup>3</sup>H]-NA-release from bovine cultured adrenal chromaffin cells, effect of collagenase, 599
  - , induction of spasm in guinea-pig isolated trachealis, effect of verapamil, 499
  - , inhibition by atropine or quinidine in myocardial preparations of cat heart, 103
- Acetylcholine receptor blockade**, effect on actions of hexamethonium on rat neuromuscular junction, 519
- 6-Acetylpirotoxinin**, actions on frog spinal cord, 373
- Acetylsalicylic acid**, action on the inotropic and chronotropic effects of lymphocytes incubated in sodium arachidonate on rat isolated atria, 75
- Acidosis**, attenuation by nicorandil in dog myocardium, 409
- Action potentials**, effect of bepridil in guinea-pig ventricular muscles, 589
- , effect of cooling on local anaesthetic action of nerve blocking drugs in frog isolated sciatic nerve, 161
  - , effects of GABA, baclofen and muscimol in rat dorsal root ganglion neurones, 327
  - , effect of local anaesthetics in cat spinal motoneurones, 215
  - , effect of morphine in guinea-pig myenteric neurones, 617
  - , effect of ryanodine, EGTA and low-sodium in rat and guinea-pig ventricular myocytes, 543
  - , modification of time course by strontium, nifedipine and 4-aminopyridine in cells from rat ventricular muscle, 551
- Adenosine**, effects in guinea-pig taenia coli, 533
- , effects on tetrodotoxin- and procaine-induced axonal blockade in frog sciatic nerve, 277
  - , induction of hypotension, effects of alkylxanthines, 401
- Adenosine diphosphate**, effect on tetrodotoxin- and procaine-induced axonal blockade in frog sciatic nerve, 277
- , induction of platelet aggregation in humans, effect of carbon dioxide, 125
- Adenosine monophosphate**, effect on tetrodotoxin- and procaine-induced axonal blockade in frog sciatic nerve, 277
- Adenosine 3',5'-monophosphate**, cyclic, effects of forskolin, isoprenaline, sodium nitroprusside and electrical stimulation on levels in rabbit isolated papillary muscles, 151
- , cyclic, effects of vasoactive intestinal polypeptide, prostaglandin E<sub>1</sub> and forskolin on levels in bovine retractor penis muscle, 665
  - , N<sup>6</sup>-O<sup>2</sup>-dibutyryl cyclic, effect on opiate receptor density in 108CC15 neuroblastoma × glioma hybrid cells, 169
  - , N<sup>6</sup>-2'-dibutyryl, effect on deep body temperature in rabbits, 583
- Adenosine triphosphate**, effect on tetrodotoxin- and procaine-induced axonal blockade in frog sciatic nerve, 277
- Adenosine 5'-triphosphate**, effect on histamine secretion in rat peritoneal mast cells, 693
- Adrenal chromaffin cells**, bovine, effects of collagenase on release of [<sup>3</sup>H]-NA, 599
- Adrenal steroids**, effect of metoprolol on urinary excretion in patients with hypertension, 245
- Adrenaline**, induction of concentration-dependent relaxation of human isolated bronchial preparations, 611
- , induction of contractions and relaxations in mouse isolated colon, 231
  - , mediation of mammalian platelet responses by adrenoceptors, 91
- Adrenergic nerve terminals**, effects of phenylephrine and clonidine in guinea-pig isolated atria, 491
- Adrenergic transmission**, modulation by α-adrenoceptor antagonists in dog mesenteric vein, 479
- α-Adrenoceptor agonists**, affinity in relation to efficacy in rat anococcygeus and vas deferens, 131
- , effect on stimulation-evoked overflow of radioactivity from dog saphenous vein, 457
- α-Adrenoceptor antagonists**, effect on stimulation-evoked overflow of radioactivity from dog saphenous vein, 457
- α<sub>1</sub>-Adrenoceptor antagonists**, effect on urinary excretion of adrenal steroids and kallikrein in patients with hypertension, 245
- Adrenoceptors**, in mammalian platelets, 91
- , involvement in regulation of intestinal tone in isolated colon of the mouse, 231

- $\alpha$ -Adrenoceptors**, characterization in female rabbit urethra, 293
- , effect of blockade on neurally-evoked overflow of endogenous NA from rat isolated heart, 475
  - , classification studies using organ selectivity of NA and oxymetaxoline in rat, 131
  - , location in chick atria, 289
  - , mediation of one component of prejunctional effects of phenylephrine in guinea-pig isolated atria, 491
- $\alpha_2$ -Adrenoceptors**, modulation of adrenergic transmission in dog mesenteric vein, 479
- $\beta$ -Adrenoceptors**, classification in human isolated bronchus, 611
- , classification in isolated ring preparations of canine coronary arteries, 637
  - , effect of blockade on neurally-evoked overflow of endogenous NA from rat isolated heart, 475
- Airways**, guinea-pig, induction of contractions by arachidonic acid, calcium ionophore A23187 and antigens, 465
- , guinea-pig intrapulmonary, effects of arachidonic acid and non-steroidal anti-inflammatory drugs, 335
- $\beta$ -Alanine**, induction of depolarizations of primary afferent terminals in frog spinal cord, effect of picrotoxinin and related compounds, 373
- Alcohol**, induction of diuresis, effect of naloxone in rats, 85
- Aldosterone**, effect of metoprolol on urinary excretion in patients with hypertension, 245
- Alkylxanthines**, positive inotropic effects, role of adenosine receptor blockade in guinea-pig isolated atrium and in anaesthetized dog, 401
- 3 Amino propane sulphonic acid**, effects in rat dorsal root ganglion neurones, 327
- $\gamma$ -Aminobutyric acid**, actions on dopamine receptors in rat substantia nigra, 631
- , induction of depolarizations of primary afferent terminals in frog spinal cord, effect of picrotoxinin and related compounds, 373
- $\gamma$ -Aminobutyric acid **A** and **B** receptors**, coexistence on **A $\delta$**  and **C** primary afferents of rat dorsal root ganglion, 327
- 4-Aminopyridine**, effect on time course of action potentials in cells from rat ventricular muscle, 551
- Amitriptyline**, effect on secretion of 5-HT and histamine in response to vasoactive peptides and compound 48/80 from rat mast cells, 227
- Anaphylaxis**, method for measurement in guinea-pig, 195
- Angiotensin II**, contractile and pressor responses to in aorta and portal vein of uraemic rats, 69
- , induction of contractions, effect on prostaglandin and thromboxane release from rabbit blood vessels, 623
  - , induction of contractions in rat uterine smooth muscle in calcium-free medium, 317
  - , induction of endothelium-dependent relaxation in isolated arteries of the dog, 301
- Anhydriocrotin**, actions on frog spinal cord, 373
- Antibiotics**, effect on transmitter release at the neuromuscular junction of the garter snake, 61
- Antidepressant drugs**, effect of withdrawal after chronic administration on sensitivity of rat cingulate cortical neurones to substance P, 659
- Antigens**, induction of contractions in indomethacin-treated guinea-pig airways, 465
- Aorta**, rabbit, effect of nicotine on formation of prostacyclin-like activity and thromboxane, 55
- , rabbit and rat, effects of verapamil and nitroprusside on contraction and calcium uptake in smooth muscle, 393
  - , rat, contractile responses to noradrenaline, angiotensin II and potassium chloride after acute renal failure, 69
  - , rat, induction of biphasic relaxation by nitroglycerine in vascular smooth muscle, 387
  - , rat isolated, effect of clonidine in the presence and absence of endothelial cells, 16
- Apomorphine**, induction of contractions and relaxations in mouse isolated colon, 231
- Arachidonic acid**, effect of incubation of human lymphocytes on inotropic and chronotropic rat isolated atria, 75
- , effect on formation of prostaglandins in rabbit blood vessels, 623
  - , effect on intrapulmonary airway tone in the guinea-pig, 335
  - , induction of contractions of indomethacin-treated guinea-pig airways, 465
  - , induction of platelet aggregation in humans, effect of carbon dioxide, 125
- [<sup>14</sup>C]-arachidonic acid**, effects of incubation with, on rabbit aorta and platelets, 55
- Arrhythmias**, effects of timolol during canine myocardial ischaemia and reperfusion, 675
- Arteries**, dog isolated, induction by angiotensin II and histamine of endothelium-dependent relaxation, 301
- Aspirin**, effects on intrapulmonary airway tone in the guinea-pig, 335
- Asthma**, effect on capsaicin-induced cough, 113
- , possible drug screening method, 195
- Atenolol**, effect on isoprenaline-induced relaxations in carbachol-contracted human bronchus, 611
- , effect on positive inotropic responses of chick atria to NA and isoprenaline, 289
  - , effect on fenoterol- and NA-induced relaxations in isolated ring preparations of dog coronary arteries, 637
- Atria**, chick, effect of NA and isoprenaline on contractions, 289
- , guinea-pig isolated, differences between the prejunctional effects of clonidine and phenylephrine, 491
- Atropine**, antagonism of effects of ACh on myocardial preparations of cat heart, 103
- , effect on contractile responses to substance P and tachykinins in guinea-pig oesophagus, 143
  - , effect on electrical response of dog mesenteric vein, 479
- Autoinhibitory feed-back**, role in cardiac sympathetic transmission in guinea-pig atrium, 201
- $\alpha$ -Autoinhibitory mechanism**, possible involvement in effects of noradrenaline on electrical responses of dog mesenteric vein, 479

## B

- Baclofen**, effect on contractile responses to substance P in guinea-pig oesophagus, 143
- Benextramine**, prevention of phentolamine adrenoceptor agonist activity in the rabbit, 423

- Benoxaproyen**, effects on blood flow and cyclo-oxygenase products in rat skin allografts, 361
- , effects on intrapulmonary airway tone in the guinea-pig, 335
- Benzocaine**, effect of cooling on anaesthetic properties in frog isolated sciatic nerve, 161
- Benzyl alcohol**, effect of cooling on anaesthetic properties in frog isolated sciatic nerve, 161
- Bepridil**, effects on the electrophysiological properties of guinea-pig ventricular muscles, 589
- , electromechanical effects on rabbit isolated hearts, 41
- Bethanecol**, effect on [<sup>3</sup>H]-NA-release from bovine cultured adrenal chromaffin cells, 599
- Bicuculline**, effect on GABA-induced actions in rat dorsal root ganglion neurones, 327
- Bile**, effect of 3,5,5-trimethylcyclohexanol on flow in the rat, 183
- Blood flow**, effect of cyclosporin A and inhibitors of arachidonic acid metabolism in rat skin allografts, 361
- , effect of morphine-neural interactions in canine intestine, 263
- Blood pressure**, effect of phentolamine in meclizine treated rabbits, 423
- , effect of Sgd 101/75 in cat and rat preparations, 255
- , vasopressin-mediated recovery, effect of neonatal capsaicin treatment in the rat, 341
- Blood vessels**, effect of prostaglandin D<sub>2</sub> in perfused isolated cotyledon of human placenta, 19
- , rabbit, importance of endogenous prostaglandins other than prostacyclin for the modulation of contractility, 623
- Bombesin**, effect on 5-HT and histamine secretion from rat mast cells, 227
- Bromocresol green**, inhibitory effect on pulmonary prostaglandin E<sub>1</sub> extraction in dogs, effect of plasma protein binding, 449
- Bronchus**, human, classification of  $\beta$ -adrenoceptors, 611
- $\alpha$ -**Bungarotoxin**, effect on hexamethonium action on end-plate currents, of rat neuromuscular junction, 519
- BW755C**, effects on intrapulmonary airway tone in the guinea-pig, 335

## C

- Caesium ions**, unmasking of calcium component of action potentials in rat dorsal root ganglion neurones, 327
- Caffeine**, electromechanical properties of guinea-pig portal vein, 427
- Calcium**, antagonism by verapamil in guinea-pig isolated trachealis, 499
- , component of action potentials in rat dorsal root ganglion neurones, 327
- <sup>45</sup>**Calcium**, effect of potassium chloride on uptake and efflux in rat vas deferens, 441
- Calcium antagonists**, effects on drug-induced contractions in rat uterine smooth muscle, 317
- Calcium channels**, in smooth muscles of rabbit and rat aorta and guinea-pig taenia coli, 393
- Calcium currents**, effect of ryanodine in rat ventricular muscle cells, 13
- Calcium fluxes**, effect of phenothiazine analogues in platelets, 509

- Calcium-free medium**, effect on induction of contractions by ACh and angiotensin II in rat uterine smooth muscle, 317
- Calcium-free reperfusion**, wash out of NA after ischaemia in the rat, 22
- Calcium ions**, effect of extracellular contractions on primycin-induced changes in acetylcholine release at neuromuscular junction of the garter snake, 61
- Calcium uptake**, effect of verapamil and sodium nitroprusside in rabbit and rat aorta and guinea-pig taenia coli, 393
- Calmodulin**, effect on phenothiazine-induced inhibition of calcium uptake in platelets, 509
- Capsaicin**, effect of neonatal treatment on vasopressin-mediated blood pressure recovery following acute hypotension in the rat, 341
- , inhalation in man, effects of sodium cromoglycate, 113
- Carbachol**, induction of human bronchial tone, effect of sympathomimetic amines, 611
- Carbamylcholine**, effect on histamine secretion in rat and hamster peritoneal mast cells, 693
- Carbon dioxide**, effect on platelet aggregation induced by adenosine diphosphate or arachidonic acid in humans, 125
- Castration**, effect on hexobarbitone hydroxylase activity in Crl:CD-1 mice, 49
- Catecholamines**, responses of mammalian platelets to, 91
- Cathepsin D**, effect of coronary occlusion on activity in cat myocardium, effects of pentoxifylline, 575
- Cerebral cortex**, rat, excitant effects of methyl derivatives of quinolinic acid on rat cortical neurones, 175
- Chloride**, effect of lowered extracellular levels on the effects of adenosine analogues in guinea-pig taenia coli, 533
- Chlorimipramine**, effect of withdrawal after chronic administration on sensitivity of rat cingulate neurones to substance P, 659
- , effect on fenfluramine-induced hyperthermia in rats, 651
- 2-Chloroadenosine**, effects in guinea-pig taenia coli, 533
- , negative inotropic responses, antagonism by alkylxanthines *in vivo*, 401
- Chlorpheniramine**, effect on contractile responses to substance P in guinea-pig oesophagus, 143
- Chlorpromazine**, effects of neonatal administration on development of sex differences in hepatic drug metabolism in the rat, 283
- Chlortetracycline**, effect on histamine secretion in rat and hamster peritoneal mast cells, 693
- Cholera toxin**, effects on body temperature and behaviour in rabbits, 583
- Choleresis**, induction by 3,5,5-trimethylcyclohexanol in rats, 183
- Cholesterol**, effect of 3,5,5-trimethylcyclohexanol on hepatic synthesis in the rat, 183
- Choline**, high affinity transport, effect of cyclic analogues of choline in rat phrenic nerve-hemidiaphragm, 685
- Cholinergic nerves**, involvement in regulation of intestinal tone in isolated mouse colon, 321
- Cholinesterase**, effect of inhibition on the action of hexamethonium against ACh or carbachol at rat neuromuscular junction, 519



**Cholinesterase enzymes**, weak inhibition by cyclic analogues of choline, 685

**Chromaffin cells**, bovine adrenal, uptake of [ $^3\text{H}$ ]-nicotine and [ $^3\text{H}$ ]-NA, 119

**Chronotropic responses**, to NA and isoprenaline, effects of  $\alpha$ - and  $\beta$ -adrenoceptor blockade in chick atria, 289

**Cimetidine**, effect on the pharmacokinetics of tolbutamide, 557

**Citalopram**, effect on fenfluramine-induced hyperthermia in rats, 651

**Clonidine**, effect on rat isolated aorta in the presence and absence of endothelial cells, 16

- , effect on stimulation-evoked overflow of radioactivity from dog saphenous vein, 457
- , induction of contractions in female rabbit urethra, effect of  $\alpha_1$  and  $\alpha_2$ -adrenoceptor antagonists, 293
- , induction of contractions in mouse isolated colon, 231
- , induction of hypothermia in rats, 189
- , prejunctional effects in guinea-pig isolated atria, 491

[ $^3\text{H}$ ]-**clonidine**, displacement of binding in rat membranes by Sgd 101/75, 255

**Cocaine**, effect on uptake of [ $^3\text{H}$ ]-nicotine and [ $^3\text{H}$ ]-NA by cultured chromaffin cells, 119

**Collagen**, induction of *in vivo* aggregation of rat platelets, 31

**Collagenase**, effect on the release of [ $^3\text{H}$ ]-NA from bovine cultured adrenal chromaffin cells, 599

**Colon**, mouse, involvement of adrenoceptors in intestinal tone, 231

**Compound 48/80**, effect on histamine secretion in rat and hamster peritoneal mast cells, 693

**Concanavalin A**, effect on histamine secretion in rat and hamster peritoneal mast cells, 693

- , induction of hypoglycaemia and accumulation of 5-HT in mouse liver, 645

**Conduction velocity**, effect of cooling on local anaesthetic action of nerve blocking drugs in isolated sciatic nerve, 161

**Contractions**,  $\alpha$ -adrenoceptor agonist-induced, effect of prazosin or rauwolscine in female rabbit urethra, 293

- , effect of ACh on force in myocardial preparations of cat heart, inhibition by atropine or quinidine, 103
- , in rat ventricular muscles, suppression by ryanodine in rats, 13
- , induction by ACh or angiotensin II in rat uterine smooth muscle in calcium-free medium, 317
- , induction by NA, angiotensin II and potassium chloride in aorta and portal vein of uraemic rats, 69
- , induction in indomethacin-treated guinea-pig airways, mediation by leukotrienes C<sub>4</sub> and D<sub>4</sub>, 465
- , NA- and angiotensin II-induced, effect on prostaglandin and thromboxane release from rabbit blood vessels, 623
- , substance P induced in isolated muscularis mucosae of guinea-pig oesophagus, 143

**Coriamyrtin**, actions on frog spinal cord, 373

**Coronary arteries**, dog, classification of  $\beta$ -adrenoceptors in isolated ring preparations, 637

**Coronary occlusion**, attenuation of myocardial acidosis by nicorandil in dogs, 409

**Cortical neurones**, increased sensitivity to substance P following withdrawal of chronic administration of antidepressant drugs, 659

**Corynanthine**, antagonism of responses of rat vas deferens or anococcygeus to NA or oxymetazoline, 131

**Coughing**, induced in subjects with mild asthma, effect of sodium cromoglycate, 113

**Creatine phosphokinase**, effect of coronary occlusion on activity in cat myocardium, effect of pentoxifylline, 575

**Cyclic nucleotides**, role in temperature regulation in rabbits, 583

**Cyclohexyladenosine**, effect in guinea-pig taenia coli, 533

**Cyclo-oxygenase**, difference in rabbit aorta and platelets in sensitivity to nicotine, 55

**Cyclo-oxygenase inhibitors**, action on the inotropic and chronotropic effects of lymphocytes incubated in sodium arachidonate on rat isolated atria, 75

**Cyclo-oxygenase products**, effect of cyclosporin A and inhibitors of arachidonic acid metabolism in rat skin allografts, 361

- , role in the maintenance of guinea-pig airway tone, 335

**Cyclosporin A**, effects on blood flow and cyclo-oxygenase products in rat skin allografts, 361

## D

**Dantrolene sodium**, action on fast and slow motor units of the rat anaesthetized with urethane, 351

**Diazepam**, effect of chronic dosing on responses to substance P in rat cingulate neurones, 659

**Depolarizations**, activity of cyclic analogues of choline in frog rectus abdominis muscle, 685

- , GABA-induced in rat dorsal root ganglion neurones, 327

**Desipramine**, effect of withdrawal after chronic administration on sensitivity of rat cingulate cortical neurones to substance P and L-glutamate, 659

- , effect on  $^3\text{H}$ -efflux and atrial rate responses to field stimulation in the guinea-pig, 201
- , plus yohimbine, effect on neurally-evoked overflow of endogenous NA in rat isolated heart, 475

**Dextran**, effect on histamine secretion in rat peritoneal mast cells, 693

[ $^3\text{H}$ ]-**dihydroergocryptine**, inhibition of binding by prazosin or rauwolscine in female rabbit urethra, 293

**Dihydrofolate reductase**, role of glutamate moiety in methotrexate binding, 309

**5,7-Dihydroxytryptamine**, effect on actions of muscimol and morphine in nucleus raphé dorsalis in the rat, 25

**Dimaprit**, effect on anaphylactic responses in sensitized Konzett-Rossler model in the guinea-pig, 195

**Dimethylated epoxide**, sex differences in hepatic metabolism, effect of neonatal administration of centrally acting drugs in rat, 283

**N-(2,6-dimethylphenylcarbamoylmethyl) trimethylammonium chloride** *see* QX-222

**Dipyridamole**, effect on adenosine and analogue concentration-response curves in guinea-pig taenia coli, 533

**Diuresis**, induced by water, alcohol or congenital lack of vasopressin in rats, effect of naloxone, 85

**Divalent cation**, extracellular, role in *in vivo* platelet aggregation in the rat, 31

**Dopamine**, effect on stimulation-evoked overflow of radioactivity from dog saphenous vein, 457

- , induction of contractions and relaxations in mouse isolated colon, 231
- , release by nerve stimulation in the guinea-pig and rat vas deferens, 563
- [<sup>3</sup>H]-dopamine, effect of field stimulation on <sup>3</sup>H-efflux from guinea-pig atrium, 201
- Dopamine receptors**, actions of antipsychotic drugs in rat substantia nigra, 631
- Dorsal roots**, induction of depolarizations by picrotoxinin and related compounds in frog spinal cord, 373
- Drug metabolism**, sexual differences in Crl:CD-1 mice due to androgen-induced changes in hexobarbitone activity in Crl:CD-1 mice, 49
- Dynorphin-related peptides**, production of motor dysfunction in rat, 271

## E

- EGTA**, effects on action potentials in rat and guinea-pig ventricular myocytes, 543
- EGTA antagonists**, effect on drug-induced contractions in rat uterine smooth muscle, 317
- Electrical stimulation**, effect of increased frequency on inotropic responses of rabbit papillary muscles, 151
- Electromechanical properties**, guinea-pig portal vein, effects of ACh, NA, caffeine, procaine and excess concentrations of potassium and manganese chloride, 427
- Eledoisin**, induction of contractions in isolated muscularis mucosae of the guinea-pig oesophagus, 143
- Endorphin**,  $\alpha$ -neo, production of motor dysfunction in rats, 271
- Endothelium**, effect of removal of cells on responsiveness of rat aorta to clonidine, 16
- , effect of removal on relaxations induced by angiotensin II and histamine in isolated dog arteries, 301
- Endotoxin**, induction of hypoglycaemia and accumulation of 5-HT in liver of mice, 645
- Endplate currents**, effect of primycin on amplitude in the garter snake, 61
- , effects of the interaction of hexamethonium with tubocurarine at rat neuromuscular junction, 519
- Enkephalin**, D-Ala<sup>2</sup>-D-Leu<sup>5</sup>, effect on opiate receptor density on 108CC15 neuroblastoma  $\times$  glioma hybrid cells, 169
- Enprofylline**, effect on negative inotropic responses to 2-chloroadenosine *in vitro* and hypotensive response to adenosine *in vivo*, 401
- Enzymes**, induction and inhibition, study using tolbutamide, 557
- Erythro-DL-1 (7-methylindan-4-yloxy)-3-isopropylamino-butan-2-ol** *see* ICI 118,551
- 5'-N-ethylcarboxamide adenosine**, effects in guinea-pig taenia coli, 533
- Excitatory junction potentials**, effect of NA in dog mesenteric vein, 479
- Extensor digitorum longus**, rat, effect of dantrolene sodium, 351
- Etraneuronal uptake**, modulation of responses to isoprenaline in canine coronary arteries, 637

## F

- Femoxetine**, effect on fenfluramine-induced hyperthermia in rats, 651
- Fenfluramine**, induction of hyperthermia in rats, antagonism by some but not all 5-HT uptake inhibitors in rats, 651
- Fenoterol**, induction of concentration-dependent relaxation of human isolated bronchial preparations, 611
- , relaxant effects on isolated ring preparations of dog coronary arteries, 637
- Field stimulation**, induction of contractions in mouse isolated colon, 231
- Flunarizine**, effect on responsiveness of rat aorta to clonidine in the absence of endothelial cells, 16
- Fluoxetine**, effect on fenfluramine-induced hyperthermia in rats, 651
- , effect on release of endogenous 5-HT and 5-HIAA in myenteric plexus of guinea-pig isolated small intestine, 381
- cis*-**Flupenthixol**, actions on dopamine receptors in rat substantia nigra, 631
- Fluphenazine**, effect of chronic dosing on responses to substance P in rat cingulate neurones, 659
- Forced expiratory volume**, effect of inhaled capsaicin in subjects with mild asthma, 113
- Forskolin**, effect on cyclic AMP levels and induction of relaxation in bovine retractor penis muscle, 665
- , effects on cyclic nucleotide levels and tension responses of isolated papillary muscles of the rabbit, 151

## G

- G-25671**, *in vitro* inhibition of collagen-induced platelet aggregation in the rat, 31
- Glutamate moiety**, role in binding of methotrexate to *Lactobacillus casei* dihydrofolate reductase, 309
- Glycerol**, induction of acute renal failure, vascular reactivity, 69
- Gonadotropin**, effect on hexobarbitone hydroxylase activity in Crl:CD-1 mice, 49
- Guanosine 3',5'-monophosphate**, mediation of neurogenic relaxation in the bovine retractor penis muscle, 665
- , 8-bromocyclic, induction of relaxation in bovine retractor penis muscle, 665
- , cyclic, effects of forskolin, isoprenaline, sodium nitroprusside and electrical stimulation on levels in rabbit isolated papillary muscles, 151
- , cyclic, mediation of nitroglycerine-induced biphasic relaxation in vascular smooth muscle of rat aorta, 387
- , N<sup>6</sup>-2'-dibutyl, effect on deep body temperature in rabbits, 583
- Guanyl imidodiphosphate**, effects on body temperature and behaviour in rabbits, 583

## H

- Haemoglobin**, effect on cyclic guanosine 3',5'-monophosphate levels and relaxation in bovine retractor penis muscle, 665

- Haloperidol**, actions on dopamine receptors in rat substantia nigra, 631
- Heart**, cat, antimuscarinic action of quinidine, 103
- , rabbit isolated, electromechanical effects of bepridil, 41
  - , rat isolated, effects of  $\alpha$ - and  $\beta$ -adrenoceptor blockade on neurally-evoked overflow of NA, 475
- Heart rate**, effect of inhaled capsaicin in subjects with mild asthma, 113
- Hexamethonium**, interaction with tubocurarine on rat neuromuscular junction, 519
- Hexobarbitone**, androgenic repression of metabolism and action in Crl:CD-1 mice, 49
- His-bundle electrogram**, effect of bepridil on conduction time in rabbit isolated hearts, 41
- Histamine**, comparison of secretion from peritoneal mast cells from rat and hamster, 693
- , induction of contractions and increases in calcium uptake, effect of verapamil and sodium nitroprusside in rabbit and rat aorta and guinea-pig taenia coli, 393
  - , induction of endothelium-dependent relaxation in isolated arteries of the dog, 301
  - , induction of spasm in guinea-pig isolated trachealis, effect of verapamil, 499
  - , parallel secretion with 5-HT from rat mast cells stimulated by vasoactive peptides and compound 48/80, 227
  - , stimulation by phenolphthalein of formation in rat intestine, 347
- Histamine H<sub>1</sub>-receptors**, involvement in endothelium-dependent relaxation in isolated arteries of the dog, 301
- Histidine residues**, effect of binding of methotrexate to *Lactobacillus casei* dihydrofolate, 309
- Homoquinolinic acid**, excitant activity on rat cortical neurones, 175
- Hydroxy-N,N-dimethylpiperidinium analogues**, pharmacological actions at the cholinergic synapse, 685
- S-3-hydroxy-3-methylglutaryl coenzyme A**, effect of 3,5,5-trimethylcyclohexanol in rats, 183
- 5-Hydroxyindoleacetic acid**, effect of muscimol injections into nucleus raphe dorsalis on levels in areas of rat brain, 25
- , spontaneous release from myenteric plexus of guinea-pig isolated small intestine, 381
- Hydroxymethyl-N,N-dimethylpiperidinium analogues**, pharmacological actions at the cholinergic synapse, 685
- Hydroxytolbutamide**, effect of phenobarbitone, primaquine and cimetidine on formation in the rat, 557
- 5-Hydroxytryptamine**, accumulation in mouse liver after injection of mitogenic substances, 645
- , effect of selective inhibitors on uptake and release in rat hypothalamus, 651
  - , lack of involvement in muscimol's effect on morphine analgesia in rats, 25
  - , parallel secretion with histamine from rat mast cells stimulated by vasoactive peptides and compound 48/80, 227
  - , spontaneous release from myenteric plexus of guinea-pig isolated small intestine, 381
  - , stimulation of formation by phenolphthalein in rat intestine, 347

- 5-Hydroxytryptamine inhibitors**, effect on fenfluramine-induced hyperthermia in rat, 651
- Hypertension**, effect of metoprolol on urinary excretion of adrenal steroids and kallikrein, 245
- Hyperthermia**, fenfluramine-induced, antagonism by some but not all selective 5-HT uptake inhibitors, 651
- Hypoglycaemia**, induction in mice after injection of mitogenic substance, 645
- Hypotension**, response to adenosine, effect of alkylxanthines, 401
- , stimulation of vasopressin release, effect of neonatal capsaicin treatment in the rat, 341
- Hypothermia**, induction by clonidine and xylazine in rats, 189
- Hypothermia**, induction by N<sup>6</sup>-2'-O-dibutyl derivatives of adenosine 3',5'-monophosphate and guanosine 3',5'-monophosphate in rabbits, 583

## I

- ICI 118,551**, effect on fenoterol- and NA-induced relaxations in isolated ring preparations of dog coronary arteries, 637
- , effect on isoprenaline-induced relaxations in carbachol-contracted human bronchus, 611
- Imipramine**, effect on uptake of [<sup>3</sup>H]-nicotine and [<sup>3</sup>H]-NA by cultured chromaffin cells, 119
- Indocyanine green**, inhibitory effect on pulmonary prostaglandin E<sub>1</sub> extraction in dogs, effect of plasma protein binding, 449
- Indomethacin**, abolition of tetrodotoxin-induced contractions of mouse isolated colon, 231
- , effect on actions of phenolphthalein on formation of histamine, 5-HT and prostaglandin-like material in rat intestine, 347
  - , effect on blood flow and cyclo-oxygenase products in rat skin allografts, 361
  - , effect on contractions induced in mouse isolated colon, 231
  - , effect on endothelium-dependent relaxation induced by angiotensin II and histamine in isolated arteries of the dog, 301
  - , effect on formation of prostaglandins in rabbit blood vessels, 623
  - , effect on intrapulmonary airway tone in the guinea-pig, 335
  - , *in vitro* inhibition of collagen-induced platelet aggregation in the rat, 31
- Inotropic responses**, positive, to alkylxanthines *in vivo* and *in vitro*, 401
- , to forskolin and isoprenaline in rabbit isolated papillary muscles, 151
  - , to NA and isoprenaline, effects of  $\alpha$ - and  $\beta$ -adrenoceptor blockade in chick atria, 289
- Instructions to Authors**, 3, 415
- Intestine**, dog, effect of morphine-neural interactions on absorption and blood flow, 263
- , guinea-pig isolated, release of endogenous 5-HT and 5-HIAA in myenteric plexus, 381
  - , mouse, involvement of adrenoceptors in regulation of tone, 231

- , rat, stimulation of histamine, 5-HT and prostaglandin-like material formation by phenolphthalein, 347
- <sup>125</sup>I-iodocyanopindolol**, use for assessment of  $\beta_2$ -adrenoceptors in mammalian platelets, 91
- Ionomycin**, effect on histamine secretion in rat and hamster peritoneal mast cells, 693
- Ionophore A 23187**, effect on histamine secretion in rat and hamster peritoneal mast cells, 693
- , induction of contractions in indomethacin-treated guinea-pig airways, 465
- Ionophore X537A**, effect on [<sup>3</sup>H]-NA-release from bovine cultured adrenal chromaffin cells, 599
- Ischaemia**, induction of NA release in isolated rat heart, 22
- Isoguvacine**, effects in rat dorsal root ganglion neurones, 327
- Isoprenaline**, effect on contractions in chick atria, 289
- , effect on cyclic nucleotide levels and tension responses of isolated papillary muscles of the rabbit, 151
- , induction of concentration-dependent relaxation of human isolated bronchial preparations, 611
- , induction of relaxations in colon antagonized by propranolol in mice, 231
- , induction of relaxations in the isolated arteries of the dog, 301
- , induction of slow responses in guinea-pig ventricular muscles, effect of bepridil, 589
- , relaxant effects on isolated ring preparations of dog coronary arteries, 637

## K

- Kallikrein**, effect of metoprolol on urinary excretion in patients with hypertension, 245

## L

- Lectin**, from various sources, effect on histamine secretion in rat and hamster peritoneal mast cells, 693
- Leukotriene C<sub>4</sub> and D<sub>4</sub>**, mediation of arachidonic acid-, calcium ionophore A23187- and antigen-induced contractions of indomethacin-treated guinea-pig airways, 465
- Lidocaine**, effect on transmembrane action potentials of guinea-pig ventricular muscles, 589
- , electromechanical effects on rabbit isolated hearts, 41
- Lignocaine**, responses of cat spinal motoneurones to, 215
- Lipids**, effect of 3,5,5-trimethylcyclohexanol on biliary secretion in the rat, 183
- Lipopolysaccharides**, induction of hypoglycaemia and accumulation of 5-HT in liver in mice, 645
- Lipoxigenase inhibitors**, effect on the inotropic and chronotropic actions of lymphocytes incubated in sodium arachidonate, 75
- Lipoxigenase products**, role in the maintenance of guinea-pig airway tone, 335
- Liver**, rat, effects of centrally acting drugs administered neonatally on drug metabolism, 283
- Liver microsomes**, androgenic repression of hexobarbitone metabolism and action in Cr1:CD-1 mice, 49

- Local anaesthesia**, effect of temperature changes on potency of nerve blocking drugs, 161
- Lung**, dog, influence of plasma protein on the effects of indocyanine green and bromocresol green on prostaglandin E<sub>1</sub> extraction, 449
- Lymphocytes**, human, effect on sensitivity to rat isolated atria to inotropic and chronotropic effects of sodium arachidonate, 75
- , mouse role in induction of hypoglycaemia and increased 5-HT by mitogenic substances, 645

## M

- M & B 22948**, effect on cyclic guanosine 3',5'-monophosphate levels and relaxation in bovine retractor penis muscle, 665
- Macrophages**, role in induction of hypoglycaemia and increased 5-HT by mitogenic substances in mice, 645
- Magnesium**, effect of increased concentrations on actions of hexamethonium on rat neuromuscular junction, 519
- Manganese chloride**, effect on electromechanical properties of guinea-pig portal vein, 427
- Mast cells**, hamster and rat, comparison of secretion of histamine in peritoneum, 693
- , rat, secretion of 5-HT and histamine in response to vasoactive peptides and compound 48/80, 227
- Mecamylamine**, effect on uptake of [<sup>3</sup>H]-nicotine and [<sup>3</sup>H]-NA by cultured chromaffin cells, 119
- Membrane: buffer partition coefficients**, in relation to temperature dependence of the action of nerve blocking drugs, 161
- Membrane conductance**, effect of GABA in rat dorsal root ganglion neurones, 327
- , effect of local anaesthetics in cat spinal motoneurones, 215
- Membrane permeability**, effect of primycin in the garter snake, 61
- Membrane potentials**, effects of ACh and angiotensin II in rat myometrial strips, 317
- , effect of local anaesthetics in cat spinal motoneurones, 215
- Mepacrine**, effect on arachidonic acid-induced contractions of indomethacin-treated guinea-pig airways, 465
- Mepyramine**, effect on anaphylactic response in the sensitized Konzett-Rossler model in the guinea-pig, 195
- Mesenteric vein**, dog, modulation of adrenergic transmission by  $\alpha$ -adrenoceptor antagonists, 479
- Metergoline**, blockade of fenfluramine-induced hyperthermia in rats, 651
- Methoxyverapamil**, effect on uptake and release of calcium ions from the calcium ion store by ACh and angiotensin II in rat uterine smooth muscle, 317
- Methotrexate**, role of glutamate moiety in the binding to *Lactobacillus casei* dihydrofolate reductase, 309
- N-methyl-DL-glutamic acid**, excitant activity on rat cortical neurones, 175
- N-methyl-hydroxylamine**, effect on cyclic guanosine 3',5'-monophosphate levels and relaxation in bovine retractor penis muscle, 665
- Methylene blue**, effect on nitroglycerine-induced contractions in vascular smooth muscle of rat aorta, 387

**2-[2-methylinda-zol-4-imino] -imidazolidine HCl** *see* Sgd 101/75**Methylxylcholine**, responses of cat spinal motoneurons to, 215**Methysergide**, blockade of fenfluramine-induced hyperthermia in rats, 651

—, effect on contractile responses to substance P in guinea-pig oesophagus, 143

**Metoprolol**, effect on urinary excretion of adrenal steroids and kallikrein in patients with hypertension, 245**Mianserin**, blockade of fenfluramine-induced hyperthermia in rats, 651**Miniature endplate potentials**, effect of sea-anemone toxin on frequency at rat neuromuscular junctions, 573**Morphine**, antinociceptive action, effect of injections of muscimol in rat nucleus raphé dorsalis, 25

—, effect on absorption of sodium and water and blood flow in dog intestine, 263

—, effect on calcium-dependent potassium conductance in guinea-pig myenteric neurones, 617

—, effect on opiate receptor density on 108CC15 neuroblastoma × glioma hybrid cells, 169

**Motor dysfunction**, induction in rats by dynorphin-related peptides, 271**Motor units**, fast and slow, effect of dantrolene sodium in rats anaesthetized with urethane, 351**Muscimol**, effect of injections in the nucleus raphé dorsalis on antinociceptive action of morphine in rats, 25

—, effects in rat dorsal root ganglion neurones, 327

—, effect of neonatal administration on development of sex differences in hepatic drug metabolism in the rat, 283

**Muscle tension**, effects of verapamil and sodium nitroprusside in rabbit and rat aorta and guinea-pig taenia coli, 393**Myenteric neurones**, guinea-pig, effect of morphine on calcium-dependent potassium conductance, 617**Myenteric plexus**, guinea-pig isolated small intestine, release of endogenous 5-HT and 5-HIAA, 381**Myocardial infarction**, effect of nicorandil on myocardial acidosis, 409**Myocardial ischaemia**, cardioprotective actions of pentoxifylline, 575

—, effects of timolol on arrhythmias and prostanoid release in dogs, 675

**Myocardium**, dog, attenuation of acidosis by nicorandil in dogs, 409

## N

**Naloxone**, effect on motor dysfunction induced by dynorphin-related peptides in rats, 271

—, effect on xylazine- and clonidine-induced hypothermia in rats, 189

—, prevention of effects of morphine on calcium-dependent potassium conductance in guinea-pig myenteric neurones, 617

—, reduction of diuretic responses to water, alcohol or congenital lack of vasopressin in rats, 85

**Neostigmine**, effect on electrical responses of dog mesenteric vein, 479**Nerve conduction**, inhibition by tetrodotoxin and procaine, effect of adenine nucleotides, 277**Neuromuscular junction**, presynaptic blockade by hydroxypiperidinium analogues by inhibition of ACh resynthesis, 685

—, rat, effects of sea-anemone toxin on the frequency of miniature endplate potentials, 573

—, rat, interaction between hexamethonium and tubocurarine, 519

**Neurotensin**, and its analogues, effect on 5-HT and histamine secretion from rat mast cells, 227**Neurotransmitters**, mediation of release via  $\alpha_2$ -adrenoceptors, interactions between yohimbine and NA in dog saphenous vein, 457**Nialamide**, effect on release of endogenous 5-HT and 5-HIAA in myenteric plexus of guinea-pig isolated small intestine, 381**Nicorandil**, attenuation of myocardial acidosis during coronary occlusion in dogs, 409**Nicotine**, effect on the formation of prostacyclin-like activity and thromboxane in rabbit aorta and platelets, 55—, induction of [ $^3$ H]-NA-release from bovine cultured adrenal chromaffin cells, effect of collagenase, 599**[ $^3$ H]-nicotine**, uptake by bovine adrenal chromaffin cells, 119**Nifedipine**, effect on  $^{45}$ calcium uptake and efflux in the rat vas deferens, 441

—, effect on responsiveness of rat aorta to clonidine in the absence of endothelial cells, 16

—, effect on time course of action potential in cells from rat ventricular muscle, 551

**Nitroprusside**, effect on  $^{45}$ calcium uptake and efflux in the rat vas deferens, 441**Non-adrenergic non-cholinergic nerves**, involvement in regulation of intestinal tone in isolated mouse colon, 231**Non-steroidal anti-inflammatory drugs**, effect on guinea-pig intrapulmonary airways, 335—, inhibition of *in vivo* platelet aggregation in the rat, 31**Noradrenaline**, contractile responses to in aorta and portal vein of uraemic rats, 69

—, contribution of affinity and efficacy to agonist activity, 131

—, effect of  $\alpha$ - and  $\beta$ -adrenoceptor blockade on neurally-evoked overflow of endogenous NA from the rat isolated heart, 475

—, effect on contractions in chick atria, 289

—, effect on electrical responses of smooth muscle cells of dog mesenteric vein to perivascular nerve stimulation, 479

—, effect on electromechanical properties of the guinea-pig portal vein, 427

—, effect on stimulation-evoked overflow of radioactivity from dog saphenous vein, 457

—, induction of concentration-dependent relaxation of human isolated bronchial preparations, 611

—, induction of contractions, effect on prostaglandin and thromboxane release from rabbit blood vessels, 623

—, induction of contractions and increases in calcium uptake, effect of verapamil and sodium nitroprusside in rabbit and rat aorta and guinea-pig taenia coli, 393

—, induction of contractions and relaxations in mouse isolated colon, 231

- , induction of contractions in female rabbit urethra, effect of  $\alpha_1$ - and  $\alpha_2$ -adrenoceptor antagonists, 293
- , presynaptic regulation of release, 457
- , relaxant effects on isolated ring preparations of dog coronary arteries, 637
- , release by nerve stimulation in guinea-pig and rat vas deferens, 563
- , wash-out by calcium-free reperfusion after ischaemia in the rat, 22
- [ $^3\text{H}$ ]-noradrenaline**, effect of collagenase on the release from bovine cultured adrenal chromaffin cells, 599
- , effect of field stimulation on  $^3\text{H}$ -efflux from guinea-pig atrium, 201
- , uptake by bovine adrenal chromaffin cells, 119
- Nordihydroguaiaretic acid**, effect on release of contractile mediators and arachidonic acid-induced contractions of indomethacin-treated guinea-pig airways, 465

## O

- Oesophagus**, guinea-pig, contractile responses to substance P and related peptides of the isolated muscularis mucosae, 143
- $\kappa$ -Opiate receptor agonists**, lack of production of motor dysfunction in rats, 271
- $\delta$ -Opiate receptors**, regulation of density on 108CC15 neuroblastoma  $\times$  glioma hybrid cells, 169
- Opioid receptors**, no mediation of dynorphin-induced motor dysfunction, 271
- Org 6582**, effect on fenfluramine-induced hyperthermia in rats, 651
- Ouabain**, effect on nitroglycerine-induced contraction in vascular smooth muscle of rat aorta, 387
- Ovalbumin sensitization**, effect on arachidonic acid-induced contractions of indomethacin-treated guinea-pig airways, 465
- OX-222**, responses of cat spinal motoneurons to, 215
- Oxymetazoline**, contribution of affinity and efficacy to agonist activity, 131

## P

- Papillary muscles**, rabbit, effects of forskolin, isoprenaline, sodium nitroprusside and frequency of stimulation on cyclic nucleotide levels and tension responses, 151
- Pentobarbitone**, effect of cooling on anaesthetic properties in frog isolated sciatic nerve, 161
- , effect on GABA-induced depolarizations in rat dorsal root ganglion neurones, 327
- , induction of axonal blockade in frog sciatic nerve, effect of adenine nucleotides, 277
- , responses of cat spinal motoneurons to, 215
- Pentoxifylline**, cardioprotective actions in an animal model of acute myocardial ischaemia, 575
- Peptide 401**, effect on histamine secretion in rat and hamster peritoneal mast cells, 693
- Perfusion pressure**, histamine induced elevation of, effects of arachidonic acid and anti-inflammatory drugs in guinea-pig airways, 335
- pH**, effect on adenosine diphosphate- and on arachidonic acid-induced aggregation of human platelets, 125

- Phenidone**, effects on intrapulmonary airway tone in the guinea-pig, 335
- Phenobarbital**, effects of neonatal administration on development of sex differences in hepatic drug metabolism in the rat, 283
- Phenobarbitone**, effect of pretreatment on the pharmacokinetics of tolbutamide, 557
- Phenolphthalein**, stimulation of formation of histamine, 5-HT and postaglandin-like material by rat intestine, 347
- Phenothiazine analogues**, effect on calcium uptake into platelets and ionophore-induced platelet activation, 509
- , effect on release of NA and dopamine by nerve stimulation in guinea-pig and rat vas deferens, 563
- , effect on responses of rat anococcygeus to oxymetazoline or NA, 131
- Phentolamine**, adrenoceptor agonist activity in the rabbit, 423
- , antagonism of responses of rat vas deferens or anococcygeus to NA or oxymetazoline, 131
- , effect on the actions of noradrenaline on electrical responses of dog mesenteric vein, 479
- , effect on contractile responses to substance P and tachykinins in guinea-pig oesophagus, 143
- , effect on contractions induced in mouse isolated colon, 231
- , effect on  $^3\text{H}$ -efflux and atrial rate responses to field stimulation in the guinea-pig, 201
- , reduction of NA- and isoprenaline-induced increase in contraction force in chick atria, 289
- Phenylbutazone**, effect on intrapulmonary airway tone in the guinea-pig, 335
- Phenylephrine**, induction of concentration-dependent relaxation of human isolated bronchial preparations, 611
- , induction of contractions and relaxations in mouse isolated colon, 231
- , induction of contractions in female rabbit urethra, effect of  $\alpha_1$  and  $\alpha_2$ -adrenoceptor antagonists, 293
- , prejunctional effects in guinea-pig isolated atria, 491
- N $^6$ -phenylisopropyl adenosine**, effects in guinea-pig taenia coli, 533
- 8-Phenyltheophylline**, effect on adenosine and analogue concentration-response curves in guinea-pig taenia coli, 533
- , effect on negative inotropic responses to 2-chloroadenosine *in vitro* and hypotensive response to adenosine *in vivo*, 401
- Phorbol diester**, induction of hypoglycaemia and accumulation of 5-HT in liver in mice, 645
- Phthallic acid**, excitant activity in rat cortical neurones, 175
- Physalaemin**, induction of contractions in isolated muscularis mucosae of the guinea-pig oesophagus, 143
- PGI $_2$**  *see* Prostacyclin
- Picrotin**, actions of frog spinal cord, 373
- Picrotoxin**, effect on GABA-induced actions in rat dorsal root ganglion neurones, 327
- Picrotoxinin**, actions on frog spinal cord, 373
- Piroxicam**, *in vitro* inhibition of collagen-induced platelet aggregation in the rat, 31
- Placenta**, human, effect of prostaglandin D $_2$  on blood vessels of perfused isolated cotyledon, 19
- Plasma protein**, influence on inhibitory effects of in-

- docyanine green and bromcresol green on pulmonary prostaglandin E<sub>1</sub> extraction in dogs, 449
- Platelets**, cat, effect of coronary occlusion on counts in right atrial blood, effect of pentoxifylline, 575
- , human, effect of carbon dioxide on aggregation induced by adenosine diphosphate or arachidonic acid, 125
  - , human, effect of phenothiazine analogues on calcium uptake and ionophore-induced activation, 509
  - , mammalian, assessment of adrenoceptor density, 91
  - , rabbit, effect of nicotine on bioformation of prostacyclin-like activity and thromboxane, 55
  - , rat, *in vivo* aggregation induced by collagens, 31
- Pokeweed mitogen**, induction of hypoglycaemia and accumulation of 5-HT in liver in mice, 645
- PolyI:polyC**, induction of hypoglycaemia and accumulation of 5-HT in liver in mice, 645
- Portal vein**, guinea-pig, electromechanical effects of ACh and NA, 427
- , uraemic rats, contractile responses to noradrenaline, angiotensin II and potassium chloride, 69
- Potassium**, effect of elevated extracellular levels on the effects of adenosine analogues in guinea-pig taenia coli, 533
- , effect of excess amounts on electro-mechanical properties of guinea-pig portal vein, 427
  - , effect of extracellular concentrations on primycin-induced changes in acetylcholine release at neuromuscular junction of the garter snake, 61
  - , effect of morphine on calcium-dependent potassium conductance in guinea-pig myenteric neurones, 617
  - , effect on nitroglycerine-induced contraction in vascular smooth muscle of rat aorta, 387
  - , effect on release of endogenous 5-HT and 5-HIAA in myenteric plexus of guinea-pig small intestine, 381
  - , induction of contractions and increased calcium uptake, effect of verapamil and sodium nitroprusside in rabbit and rat aorta and guinea-pig taenia coli, 393
  - , induction of [<sup>3</sup>H]-NA-release from bovine cultured adrenal chromaffin cells, effect of collagenase, 599
- Potassium antagonists**, effect on drug-induced contractions in rat uterine smooth muscle, 317
- Potassium chloride**, contractile responses to, in aorta and portal vein of uraemic rats, 69
- , effect on <sup>45</sup>calcium uptake and efflux in the rat vas deferens, 441
  - , induction of spasm in isolated guinea-pig trachealis, effect of verapamil, 499
- Potassium conductance**, effect of ACh and quinidine in myocardial cell membrane of the cat, 103
- Prazosin**, antagonism of responses of rat vas deferens or anococcygeus to NA or oxymetazoline, 131
- , antagonism of vasopressor responses of pithed cats and rats to Sgd 101/75, 255
  - , effect on contractions induced in mouse isolated colon, 231
  - , effect on [<sup>3</sup>H]-dihydroergocryptine binding and agonist-induced contractions in female rabbit urethra, 293
  - , effect on prejunctional effects of clonidine and phenylephrine in guinea-pig isolated atria, 491
  - , effect on stimulation evoked radioactivity from dog saphenous vein, 457
  - , effect on the actions of NA on electrical responses of dog mesenteric vein, 479
- [<sup>3</sup>H]-prazosin**, displacement of binding to rat membranes by Sgd 101/75, 255
- Pressor responses**, to angiotensin II in rats with acute renal failure, 69
- Primary afferent terminals**, amino acid-induced depolarizations, effects of picrotoxinin and related compounds in frog spinal cord, 373
- Primary afferents**, identification of coexistence of GABA<sub>A</sub> and GABA<sub>B</sub> receptors in rat dorsal root ganglion, 327
- Primaquine**, effect on the pharmacokinetics of tolbutamide, 557
- Primycin**, effect on spontaneous transmitter release at the neuromuscular junction of the garter snake, 61
- Procaine**, effect on electromechanical properties of guinea-pig portal vein, 427
- , induction of axonal blockade in frog sciatic nerve, effect of adenine nucleotides, 277
- Procatrol**, relaxant effects on isolated ring preparations of dog coronary arteries, 637
- 2-*o*-Propoxyphenyl-8-azapurin-6-one** *see* M & B 22948
- Propranolol**, effect on isoprenaline-induced relaxations in carbachol-contracted human bronchus, 611
- , effect on neurally-evoked overflow of endogenous NA from rat isolated heart, 475
  - , effect on positive inotropic responses of chick atria to NA and isoprenaline, 289
- Prostacyclin**, effect of nicotine on bioformation in rabbit aorta and platelets, 55
- , effect of timolol on release during canine myocardial ischaemia, 675
  - , effect on NA-induced contractions of some rabbit blood vessels, 623
  - , induction of relaxations in isolated arteries of the dog, 301
  - , production by zymosan-activated macrophages, effect of cyclosporin A in rat skin allografts, 361
- Prostaglandin D<sub>2</sub>**, effect on blood vessels of the perfused isolated cotyledon of the human placenta, 19
- Prostaglandin E<sub>1</sub>**, effect of plasma protein on the action of indocyanine green and bromcresol green on uptake by dog lung, 449
- , effect on cyclic AMP levels and induction of relaxation in bovine retractor penis muscle, 665
- Prostaglandin E<sub>2</sub>**, effect of cyclosporin A, indomethacin and benoxaprofen on content in rat skin grafts, 361
- , induction of spasm in isolated guinea-pig trachealis, effect of verapamil, 499
- Prostaglandin F<sub>1α</sub>**, 6-*oxo*, effect of cyclosporin A, indomethacin and benoxaprofen on the content of rat skin allografts, 361
- , 6-*oxo*-, effect of pentoxifylline after coronary occlusion in cats, 575
- Prostaglandin F<sub>2α</sub>**, effect of cyclosporin, A, indomethacin, and benoxaprofen on content of rat skin allografts, 361
- Prostaglandin I<sub>2</sub>** *see* Prostacyclin
- Prostaglandins**, endogenous, importance for the modulation of contractility of some rabbit blood vessels, 623
- , stimulation of formation by phenolphthalein in rat intestine, 347
- Prostanoids**, effects of timolol on release during canine

myocardial ischaemia and reperfusion, 675

**Protein A**, effect on histamine secretion in rat and hamster peritoneal mast cells, 693

**P<sub>1</sub>-purinoceptors**, characterization in guinea-pig taenia coli, 533

## Q

**Quinidine**, anticholinergic action on myocardial preparations of cat heart, 103

**Quinolinic acid 2-methylester**, excitant activity on rat cortical neurones, 175

## R

**Rauwolscine**, effect on [<sup>3</sup>H]-dihydroergocryptine binding and agonist-induced contractions in female rabbit urethra, 293

**Refractory period**, effect of bepridil on rabbit isolated hearts, 41

**Relaxation**, in bovine retractor penis muscle, mediation by cyclic guanosine 3',5'-monophosphate, 665

**Renal failure**, glycerol-induced, effect on vascular reactivity in rats, 69

**Renin**, effect of metoprolol on plasma activity in patients with hypertension, 245

**Renin-angiotensin-aldosterone system**, links with renal excretion of kallikrein in patients with hypertension, 245

**Reperfusion**, calcium-free, wash-out of NA and its metabolites after ischaemia in the rat, 22

—, effect of timolol on arrhythmias and prostanoid release in dogs, 675

**Reserpine**, effect of neonatal administration on the development of sex differences in hepatic drug metabolism in the rat, 283

**Retractor penis muscle**, bovine, mediation of neurogenic relaxation by cyclic guanosine 3',5'-monophosphate, 665

**Ryanodine**, effect on action potentials in rat and guinea-pig ventricular myocytes, 543

—, effect on calcium currents while suppressing contraction in rat ventricular muscle cells, 13

## S

**Salbutamol**, effect on anaphylactic response in the sensitized Konzett-Rossler model in the guinea-pig, 195

**Sea-anemone toxin**, effects on the frequency of miniature endplate potentials at rat neuromuscular junctions, 573

**Sex differences**, development in hepatic drug metabolism in rats, effect of neonatal administration of centrally acting drugs, 283

—, in androgenic-induced changes in hexobarbitone hydroxylase activity in CrI:CD-1 mice, 49

**Sgd 101/75**, effects on blood pressure and its  $\alpha$ -adrenoceptor agonist activity in cat and rat preparations, 255

**Skin grafts**, rat, effects of cyclosporin A and inhibitors of arachidonic acid metabolism on blood flow and cyclooxygenase products, 361

**Slow depolarization**, effect of NA, neostigmine and atropine in dog mesenteric vein, 479

**Smooth muscle**, induction of contractions in rat uterus by ACh or angiotensin II in calcium-free medium, 317

—, mediation of contractions in female rabbit urethra by  $\alpha_1$ - and  $\alpha_2$ -adrenoceptors, 293

**Sodium**, effect of lowered extracellular concentrations on action potentials in rat and guinea-pig ventricular myocytes, 543

—, effect of morphine on absorption in dog intestine, 263

—, effect on nitroglycerine-induced contractions in vascular smooth muscle of rat aorta, 387

**Sodium channel**, tetrodotoxin-sensitive, possibility of adenosine triphosphate stimulation, 277

**Sodium cromoglycate**, effect on anaphylactic responses to sensitized Konzett-Rossler model in the guinea-pig, 195

—, effect on capsaicin-induced cough in subjects with mild asthma, 113

**Sodium pump**, role in nitroglycerine-induced relaxation in vascular smooth muscle of rat aorta, 387

**Sodium nitroprusside**, effect on cyclic guanosine 3',5'-monophosphate levels and relaxation in bovine retractor penis muscle, 665

—, effect on cyclic nucleotide levels and tension responses of isolated papillary muscles of the rabbit, 151

—, effects on muscle tension and <sup>45</sup>C uptake in rabbit and rat aorta and guinea-pig taenia coli, 393

**Soleus muscles**, rat, effect of dantrolene sodium, 351

**Somatostatin**, effect on 5-HT and histamine secretion from rat mast cells, 227

**Spasm**, evoked by ACh, histamine, potassium chloride, tetraethylammonium and prostaglandin E<sub>2</sub>, effect of verapamil in guinea-pig isolated trachealis, 499

**Spinal cord**, frog, action of picrotoxinin and related compounds, 373

**Spinal motoneurones**, cat, responses to intracellular application of local anaesthetics, 215

**ST-segment**, elevation after coronary occlusion, effect of pentoxifylline in cats, 575

**Strontium**, effect on time course of action potential in cells from rat ventricular muscle, 551

**Substance P**, contractile responses of the isolated muscularis mucosae of the guinea-pig oesophagus, 143

—, effect on 5-HT and histamine secretion from rat mast cells, 227

—, increased sensitivity of rat cingulate cortical neurones following withdrawal of chronic administration of antidepressant drugs, 659

—, [D-Pro<sup>2</sup>, D-Trp<sup>7,9</sup>]-, contractile responses of the isolated muscularis mucosae of the guinea-pig oesophagus, 143

**Substantia nigra**, rat, actions of antipsychotic drugs in rat substantia nigra, 631

**Sucrose gap recording**, measurement of response of guinea-pig taenia coli to adenosine and its analogues, 533

**Sulphinpyrazone**, *in vitro* inhibition of collagen-induced platelet aggregation in the rat, 31

**Sulpiride**, effect on stimulation-evoked overflow of radioactivity from dog saphenous vein, 457



(-)-**Sulpiride**, actions on dopamine receptors in rat substantia nigra, 631

## T

**Taenia coli**, guinea-pig, effect of adenosine analogues, 533  
 —, guinea-pig, effect of verapamil and sodium nitropruside on contraction and calcium uptake in smooth muscle, 393  
**Tail segmental muscles**, rat, effect of dantrolene sodium, 351  
**Taurine**, induction of depolarizations of primary afferent terminals in frog spinal cord, effect of picrotoxinin and related compounds, 373  
**Temperature**, effect on local anaesthetic action of nerve blocking agents in frog isolated sciatic nerve, 161  
**Temperature regulation**, effects of clonidine and xylazine in rats, mechanisms, 189  
 —, effects of cyclic nucleotides in rabbits, 583  
**Testicular androgens**, effect of hexobarbitone metabolism in CrI:CD-1(ICR)BR mice, 49  
**Testosterone**, effect on hexobarbitone hydroxylase activity in CrI:CD-1 mice, 49  
**Tetracaine**, effect on uptake of [<sup>3</sup>H]-nicotine and [<sup>3</sup>H]-NA by cultured chromaffin cells, 119  
**Tetraethylammonium**, effect on release of NA and dopamine by nerve stimulation in guinea-pig and rat vas deferens, 563  
 —, induction of spasm in guinea-pig isolated trachealis, effect of verapamil, 499  
 —, unmasking of calcium component of action potentials in rat dorsal root ganglion neurones, 327  
**Tetrodotoxin**, actions in mouse isolated colon, 231  
 —, effect on contractile responses to substance P and tachykinins in guinea-pig oesophagus, 143  
 —, effect on electrical responses of guinea-pig isolated trachealis to tetraethylammonium, 499  
 —, effect on the frequency of miniature endplate potentials at rat neuromuscular junctions, 573  
 —, effect on release of NA and dopamine by nerve stimulation in guinea-pig and rat vas deferens, 563  
 —, effect on veratridine enhanced release of 5-HT and 5-HIAA in myenteric plexus of guinea-pig small intestine, 381  
 —, induction of axonal blockade in frog sciatic nerve, effect of adenine nucleotides, 277  
**Theophylline**, effect on anaphylactic responses in sensitized Konzett-Rossler model in the guinea-pig, 195  
 —, effect on negative inotropic responses to 2-chloroadenosine *in vitro* and hypotensive response to adenosine *in vivo*, 401  
**Thermoregulation** *see* **Temperature regulation**  
**THIP**, effect in dorsal root ganglion neurones, 327  
**Thromboxane A<sub>2</sub>**, role in collagen-induced platelet aggregation in the rat *in vivo*, 31  
**Thromboxane B<sub>2</sub>**, effect of cyclosporin A, indomethacin and benoxaprofen on the content of rat skin allografts, 361  
 —, effect of nicotine on bioformation in rabbit aorta and platelets, 55  
 —, effect of pentoxifylline after coronary occlusion in cats, 575

—, effect of timolol on release during canine myocardial ischaemia, 675

**Timolol**, effects on arrhythmias and prostanoid release during canine myocardial ischaemia and reperfusion, 675

**Tolbutamide**, model drug for study of enzyme induction and inhibition in the rat, 557

**Trachea**, guinea-pig isolated, antagonism of calcium and other actions of verapamil, 499

**Transmitter release**, effect of primycin at neuromuscular junction of the garter snake, 61

—, role of guinea-pig atrium auto-inhibitory feed-back, 201

**Transmural nerve stimulation**, effect on NA and dopamine release in guinea-pig and rat vas deferens, 563

**3,5,5-Trimethylcyclohexanol**, effect on hepatic cholesterol synthesis, bile flow and biliary lipid secretion in the rat, 183

**Trimipramine**, effect of withdrawal after chronic administration on sensitivity of rat cingulate neurones to substance P, 659

**Tubocurarine**, interaction with hexamethonium on rat neuromuscular junction, 519

**Tutin**, actions on frog spinal cord, 373

## U

**Urethra**, rabbit, characterization of  $\alpha$ -adrenoceptors, 293

**Uterus**, rat, induction of contractions in smooth muscle by ACh or angiotensin II in calcium free medium, 317

## V

**Vanadate**, effect on uptake and release of calcium ions from the calcium ion store by ACh and angiotensin II in rat uterine smooth muscle, 317

**Vas deferens**, guinea-pig and rat, release of NA and dopamine by nerve stimulation, 563

—, rat, effects of potassium chloride on <sup>45</sup>calcium uptake and efflux in the rat vas deferens, 441

**Vascular reactivity**, in rats with glycerol-induced acute renal failure, 69

**Vascular smooth muscle**, rat aorta, nitroglycerine-induced biphasic relaxation, 387

**Vasoactive intestinal polypeptide**, effect on cyclic AMP levels and induction of relaxation in bovine retractor penis muscle, 665

**Vasopressin**, induction of diuresis by a congenital lack, effect of naloxone in rats, 85

—, mediation of blood pressure recovery following acute hypotension in the rat, effect of neonatal capsaicin treatment, 341

**Vasopressin release**, prevention of inhibition by naloxone in rats, 85

**Ventral roots**, induction of depolarizations by picrotoxinin and related compounds in frog spinal cord, 373

**Ventricle**, guinea-pig, effect of bepridil on electrophysiological properties of muscles, 589

—, guinea-pig and rat, effects of ryanodine EGTA and low-sodium in myocytes, 543

- , rat, effects of ryanodine on calcium currents and contractions in muscles, 13
- , rat, modification of time course of action potential in single cells by strontium, nifedipine and 4-aminopyridine, 551

**Verapamil**, antagonism of calcium and other actions in guinea-pig isolated trachealis, 499

- , effect on potassium chloride-induced and basal <sup>45</sup>Ca efflux in the rat vas deferens, 441
- , effect on contractile responses to substance P in guinea-pig oesophagus, 143
- , effect on muscle tension and <sup>45</sup>C uptake in rabbit and rat aorta and guinea-pig taenia coli, 393
- , electromechanical effects on rabbit isolated hearts, 41

**Veratridine**, effect on [<sup>3</sup>H]-NA-release from bovine cultured adrenal chromaffin cells, 590

- , effect on release of 5-HT and 5-HIAA in myenteric plexus of guinea-pig small intestine, 381

## W

**Water**, effect of morphine on absorption in dog intestine, 263

- , induction of diuresis, effect of naloxone in rats, 85

**Water deprivation**, stimulation of vasopressin release, effect of neonatal capsaicin treatment in the rat, 341

## X

**Xylazine**, induction of hypothermia in rats, 189

## Y

**Yohimbine**, antagonism of responses of rat vas deferens or anococcygeus to NA or oxymetazoline, 131

- , effect on contractions induced in mouse isolated colon, 231
- , effect on neurally-evoked overflow of endogenous NA in rat isolated heart, 475
- , effect on phentolamine adrenoceptor agonist activity in the rabbit, 423
- , effect on prejunctional effects of clonidine and phenylephrine in guinea-pig isolated atria, 491
- , effect on stimulation evoked overflow of radioactivity from dog saphenous vein, 457
- , effect on the actions of noradrenaline on electrical responses of dog mesenteric vein, 479
- , effect on xylazine- and clonidine-induced hypothermia in rats, 189

**[<sup>3</sup>H]-yohimbine**, use for assessment of  $\alpha_2$ -adrenoceptors in mammalian platelets, 91

## Z

**Zimelidine**, effect on fenfluramine-induced hyperthermia in rats, 651

- , effect of withdrawal after chronic administration on sensitivity of rat cingulate neurones to substance P, 659