

INDEX

Volume 146, October-December 1964

- Acetazoleamide, influence of altitude on anticonvulsant action, 160
- 3-Acetyl strophanthidin, effect on salivary potassium, 298
- Acetylcholine, effect on myometrium, 313
effect on sympathetic ganglia, 335
electrophoretic application to olfactory bulb, 16
excitation of muscle spindle afferent nerves, 344
inhibition of egg deposition by a rotifer, 123
pulmonary reflexogenic activity, 404
- Acheson, G. H., *see* Siegel, I. A., 298
- Acidic lipids, stimulant, released from intestine, 215
- Active transport, effect of ouabain in frog sartorius muscle, 307
- Addiction to morphine, acute and chronic in spinal dog, 385
- Addicts, potentiation of morphine by serum from human morphine addicts, 139
- Adrenal cortex, and circadian phase dependent toxicity of methopyrapone, 395
- Adrenergic drugs, effect on intestinal motility and release of stimulant lipids, 215
- Adrenergic receptors, effect of isopropylmethoxamine, 129
- β -Adrenergic receptors, effect of pronethalol on heart, 318
- Albuquerque, E. X. and Smith, C. M., 344
- Alpers, H. S., *see* Shore, P. A., 194
- Altitude, influence on responses to electroshock and to convulsant and anticonvulsant drugs, 160
- p*-Aminohippurate, influence of thyroxine and analogues on renal uptake, 294
- Amphetamine, antagonism of reserpine-induced depression of conditioned behavior, 369
neuromuscular block as a component of toxicity, 175
- d*-Amphetamine, effects on operant behavior, 167
- Analgesia, comparison of drugs on tooth pulp thresholds, 1
- Androgen hydroxylase, enhancement of activity in liver microsomes by phenylbutazone, 225
- Angiotensin, effect on blood vessels, 200
- Anticholinergic drugs, effect on egg deposition by a rotifer, 123
- Anticonvulsant drugs, influence of altitude on action, 160
- Antidiuretic hormone, release by bradykinin, 24
- Anti-inflammatory substances, from pleural fluid, 258
- Aortic bodies, responses to drugs when temporarily separated from carotid bodies, 33
- Aronson, A. L. and Hammond, P. B., 241
- Atropine, compared with dicyclomine, 354
effect on sympathetic ganglia, 335
- Autonomic ganglia, modification of transmission by drugs, 335
- Axelrod, J., *see* Glowinski, J., 48
see Snyder, S. H., 276
- BAL, *see* dimercaprol, 236
- Barium, ganglion stimulation, 327
- Behavior, effect of chlorpromazine and imipramine on, 377
effects of *d*-amphetamine and reserpine on, 167
5-hydroxytryptamine and self-stimulation, 147
- Benzquinamide, antagonism of 5-hydroxytryptamine, 400
- Berlin, M. and Rylander, R., 236
- Bevan, J. A., Murphy, T. M. and Hardy, P. M., 404
- Blood levels of drugs, calculation of kinetic constants from, 271
- Blood pressure, effect of hydroxyethyl starch as a plasma expander, 359
- Bloom, F. E., Costa, E. and Salmoiraghi, G. C., 16
- Boyd, E. S., *see* Stark, P., 147
- Bradykinin, antagonized by dicyclomine, 354
antidiuretic effect through ADH release, 24
- Brain, uptake of mercury influenced by dimercaprol, 236
- Bretylium, effect on segmental vascular reactivity, 200
- Brom-lysergic acid diethylamide (BOL), and self-stimulation, 147
- Busfield, D., *see* Shore, P. A., 194
- Calcergy, production and inhibition by various agents, 252
- Calcium, chronotropic action on sinoatrial node, 111
effect on normal myometrium and uterine leiomyoma, 313
- Carbachol, pulmonary reflexogenic activity, 404
- Carbonic anhydrase, effect of aromatic compounds, 66
- Carboxypeptidase A, effect of aromatic compounds, 66
- Carboxypeptidase B, inhibition by aromatic compounds, 66
- Carlini, G. R. S., Fischer, G. A. and Giarman, N. J., 74
- Carotid bodies, responses to drugs when temporarily separated from aortic bodies, 33
- Caruso, P. L., *see* Selye, H., 252
- Castillo, L. S. and Timiras, P. S., 160
- Catalase, inhibition by aromatic compounds, 66
- Catecholamine, disposition in developing rat, 48

- labile stores in brain demonstrated by fluorescence microscope, 186
- Central nervous system, effect of drugs on chlorpromazine-induced depression, 180
localization of labile stores of monoamines, 186
role of 5-hydroxytryptamine on self-stimulation, 147
- Chemoreceptors, responses of temporally separated aortic and carotid bodies to drugs, 33
- Chen, K. K., *see* Kikuchi, K., 365
- Chlorpromazine, effect on pigeon behavior compared with imipramine, 377
effect on tooth pulp threshold, 1
-induced depression, effect of drugs, 180
release of 5-HT from neoplastic mast cells, 74
- Choline phenyl ether, pulmonary reflexogenic activity, 404
- Cholinergic drugs, effect on egg deposition by a rotifer, 123
- Cholinergic excitation of muscle spindle afferent nerves, 344
- Chu, E. W., *see* Snyder, S. H., 276
- Chymotrypsin, anti-inflammatory effect, 258
- Circadian rhythm, influence on effects of methopyrapone, 395
- Clift, J. W., *see* Kiplinger, G. F., 139
- Cocaine, effect on segmental vascular reactivity, 200
effects on operant behavior, 167
- Compound 48/80, effect on calcification of tissues, 252
- Computer programming of kinetics of drug distribution, 271
- Comroe, J. H., Jr. and Mortimer, L., 33
- Conditioned behavior, antagonistic effects of amphetamine and reserpine on, 369
- Conney, A. H. and Schneidman, K., 225
see Kuntzman, R., 280
- Constantine, J. W. and Knott, C., 400
- Convulsant drugs, influence of altitude on action, 160
- Corticosteroids, metabolism by liver microsomes and effect of phenylbutazone, 225
- Costa, E., *see* Bloom, F. E., 16
- Csillik, B. and Erulkar, S. D., 186
- Cyanide, effects on temporally separated aortic and carotid bodies, 33
- Darmstoff, effect on intestinal motility and release of stimulant lipids, 215
- Decarboxylase, *see* dopa decarboxylase, 42
inhibitors, and self-stimulation, 147
- Dehydrogenases, inhibition by aromatic compounds, 66
- O-Demethylating system, kinetic properties, 61
- Depletion of norepinephrine by *l*-metaraminol, 194
- Development, influence on norepinephrine disposition in rat, 48
- Dextran, compared with hydroxyethyl starch as plasma expander, 359
- Dicyclomine, antispasmodic actions compared with atropine, 354
- 2 - Diethoxyphosphanyl - thioethyl dimethylamine acid oxalate (217 AO), effect on sympathetic ganglia, 335
- β -Diethylaminoethyl diphenylpropylacetate hydrochloride, *see* SKF-525A, 265
- Digital computer programming of kinetics of drug distribution, 271
- Dimercaprol (BAL), effect on distribution of mercury, 236
- Dimercaptopropanol (BAL), effect on distribution and excretion of lead, 241
- 2,4-Dimethylphenacyl tetramethylammonium, pulmonary reflexogenic activity, 404
- Diphenylhydantoin, influence of altitude on anti-convulsant action, 160
- Diuretics, comparison of natriuretic effects with that of SKF-525A, 265
- DMPP, effect on myometrium, 313
pulmonary reflexogenic activity, 404
- Dopa decarboxylase inhibition, dissociation from norepinephrine depletion, 42
- Drug absorption, use of goldfish, 80
- Eades, C. G., *see* Martin, W. R., 385
- Electrophoretic application of drugs to rabbit olfactory bulb, 16
- Electroshock, influence of altitude on response, 160
seizure threshold, effect of hypertonic urea, 154
- Enzyme inhibition, by aromatic and nonaromatic compounds, 66
- Epinephrine, effect on hindlimb vascular resistance, O₂ and Rb⁸⁶ uptake, 117
effect on intestinal motility and release of stimulant lipids, 215
- Ertel, R. J., Halberg, F. and Ungar, F., 395
- Erulkar, S. D., *see* Csillik, B., 186
- Ethylendiaminetetraacetic acid (EDTA), effect on distribution and excretion of lead, 241
- Fischer, G. A., *see* Carlini, G. R. S., 74
- Fosdick, L. S., *see* Sarkar, N., 258
- Fouts, J. R., *see* Rogers, L. A., 286
- Fuller, R. W., *see* Stark, P., 147
- Gabel, L. P., Winbury, M. M., Rowe, H. and Grandy, R. P., 117
- Ganglia, effect of barium, 327
modification of transmission by drugs, 335
- Giarman, N. J., *see* Carlini, G. R. S., 74
- Gillis, C. N., 54
- Glowinski, J., Axelrod, J., Kopin, I. J. and Wurtman, R. J., 48
- Glycogen in liver, effect of SKF 525A, 286
- Goldfish, for study of drug absorption, 80

- Goldman, H., *see* Lindner, L. A., 123
 Gourley, D. R. H., 307
 Grandy, R. P., *see* Gabel, L. P., 117
 Gray, G. W., 215
 Gucinski, S. P., *see* Levy, G., 80
- Halberg, F., *see* Ertel, R. J., 395
 Hammond, P. B., *see* Aronson, A. L., 241
 Hardinge, M. G., *see* Peterson, D. I., 175
 Hardy, P. M., *see* Bevan, J. A., 404
 Heart, direct negative chronotropic effect of 5-hydroxytryptamine, 209
 effect of pronethalol, 318
 effect of rhodexin A, 365
 effects of pentobarbital and calcium on rate, 111
 microsomes and retention of norepinephrine, 54
 rate, influence of veratramine, norepinephrine and histamine, 99
 Hexamethonium, antagonism of barium-induced ganglion stimulation, 327
 Histamine, antagonized by dicyclomine, 354
 effect on calcification of tissues, 252
 interaction with veratramine on atrial rate, 99
 reversal of chlorpromazine-induced depression, 180
 Histochemical localization of monoamines in central nervous system, 186
 Hook, J. B. and Williamson, H. E., 265
 Hydroxyethyl starch, effects on circulation compared with blood replacement fluids, 359
 5-Hydroxytryptamine (5-HT), antagonism by benzquinamide, 400
 effect on calcification of tissues, 252
 electrophoretic application to olfactory bulb, 16
 negative chronotropic effect on sinoatrial node, 209
 possible role in self-stimulation, 147
 release from neoplastic mast cells induced by reserpine and chlorpromazine, 74
 uptake by uterus, heart and spleen, 276
- Imipramine, effect on pigeon behavior compared with chlorpromazine, 377
 effects on operant behavior, 167
 Inflammation, antagonistic effect of chymotrypsin, 258
 Intestinal motility, effect of stimulant lipids, 215
 Iproniazid, effect on microsomal drug metabolism, 286
 N-Isopropylmethoxamine, effect on adrenergic responses, 129
 effect on intestinal motility and release of stimulant lipids, 215
 Isoproterenol, effect on myometrium, 313
- Jacobson, M., *see* Kuntzman, R., 280
 James, T. N., 209
- Kidney, action of ouabain on excretory mechanisms and Na⁺-K⁺ ATP-ase, 92
 effects of malachite green, 87
 natriuretic effect of SKF-525A, 265
 Kikuchi, K. and Chen, K. K., 365
 Kinetic analyses of drug absorption and disappearance, 271
 Kiplinger, G. F. and Clift, J. W., 139
 Knott, C., *see* Constantine, J. W., 400
 Koch-Weser, J., 318
 Kopin, I. J., *see* Glowinski, J., 48
 Kuhn, W. L., *see* McGrath, W. R., 354
 Kuntzman, R., Jacobson, M., Schneidman, K. and Conney, A. H., 280
- Langer, S. Z. and Trendelenburg, U., 99
 Lavender, A. R. and Pullman, T. N., 87
 Lead, effect of chelating agents on distribution and excretion, 241
 Leiomyomata, effects of drugs on contractile activity, 313
 Levine, R. J. and Sjoerdsma, A., 42
 Levy, B., 129
 Levy, G. and Gucinski, S. P., 80
 Lewis, R. E., *see* McGrath, W. R., 354
 Lindner, L. A. and Goldman, H., 123
 Lipids, stimulant, released from intestine, 215
 Little, J. M., *see* Nepomuceno, C. G., 294
 Liver microsomal metabolism of drugs and steroids, 280
 Lobeline, pulmonary reflexogenic activity, 404
 Local anesthetic drugs, effect on intestinal motility and release of stimulant lipids, 215
- McGrath, W. R., Lewis, R. E. and Kuhn, W. L., 354
 Malachite green, renal actions, 87
 Malnic, G., *see* Rocha e Silva, M., Jr., 24
 Martin, W. R. and Eades, C. G., 385
 Mast cells, neoplastic, effect of reserpine and chlorpromazine on 5-HT content, 74
 Mastocalcergy, *see* calcergy, 252
 Mathematical analysis of drug distribution, 271
 Mecamylamine, antagonism of barium-induced ganglion stimulation, 327
 Membranes, use of goldfish for permeation kinetics, 80
 Mercury, uptake by brain, 236
 Metanicotine, pulmonary reflexogenic activity, 404
l-Metaraminol, binding and depletion of norepinephrine, 194
 Methacholine (Mecholyl), effect on sympathetic ganglia, 335
 pulmonary reflexogenic activity, 404
 Methopyrapone (SU-4885), effects dependent on circadian rhythm, 395

- Methoxamine, influence on adrenergic responses, 129
- 3-Methylcholanthrene, effect on liver metabolism of corticosteroids, 225
- α -Methyl dopa and related substances on decarboxylase and norepinephrine depletion, 42
- α -Methyl-*m*-tyramine, mechanism of norepinephrine depletion, 194
- α -Methyl-*m*-tyrosine, mechanism of norepinephrine depletion, 194
- Microsomal drug metabolism, effect of SKF 525A and iproniazid, 286
- Microsomes, comparison of original and induced O-demethylases, 61
- heart, retention of norepinephrine, 54
- in liver, metabolism of drugs and steroids, 280
- Mitchell, C. L., 1
- see Straw, R. N., 7
- Monoamine oxidase inhibitors, and self-stimulation, 147
- Monoamines, labile stores in brain, 186
- Morphine, acute and chronic addiction in spinal dog, 385
- effect on brain stem tooth pulp-evoked potentials, 7
- effect on tooth pulp threshold, 1
- potentiation of effect by serum from morphine-tolerant animals, 139
- Mortimer, L., see Comroe, J. H., Jr., 33
- Murphy, T. M., see Bevan, J. A., 404
- Muscle, skeletal, effect of ouabain on potassium flux, 307
- spindle afferent, nerve excitation by cholinergic substances, 344
- Myometrium, see uterus, 313
- Nalorphine, effect in acute and chronic addiction in spinal dog, 385
- effect on brain stem tooth pulp-evoked potentials, 7
- Natriuresis, effect of SKF-525A and other drugs, 265
- Nechay, B. R., see Palmer, R. F., 92
- Nepomuceno, C. G. and Little, J. M., 294
- Nethalide, see pronethalol, 318
- Netter, K. J. and Seidel, G., 61
- Neuromuscular blocking action of amphetamine, 175
- Nicotine, effects on temporally separated aortic and carotid bodies, 33
- pulmonary reflexogenic activity, 404
- p*-Nitroanisole, microsomal demethylation, 61
- p*-Nitrophenol, microsomal demethylation, 61
- Norepinephrine, depletion and *l*-metaraminol binding, 194
- depletion, dissociation from dopa decarboxylase inhibition, 42
- effect on blood vessels, 200
- effect on hindlimb vascular resistance, O₂ uptake and Rb⁸⁶ uptake, 117
- effect on myometrium, 313
- electrophoretic application to olfactory bulb, 16
- interaction with veratramine on atrial rate, 99
- physiological disposition in developing rat, 48
- retention by heart subcellular fraction, 54
- Olfactory bulb, neuron responses to electrophoretically applied drugs, 16
- Ouabain, effect on potassium flux in skeletal muscle, 307
- effect on renal excretory mechanisms and Na⁺-K⁺ ATP-ase, 92
- Oxidation of drugs and steroids by liver microsomes, 280
- Palmer, R. F. and Nechay, B. R., 92
- Pentazocine, effect on brain stem tooth pulp-evoked potentials, 7
- Pentobarbital, effect on brain stem tooth pulp-evoked potentials, 7
- effect on tooth pulp threshold, 1
- rate decreasing effect on sinoatrial node, 111
- Pentylentetrazol, influence of altitude on action, 160
- Peroxidase, effect of aromatic compounds, 66
- Peterson, D. I., Hardinge, M. G. and Tilton, B. E., 175
- Phenylbutazone, enhancement of steroid hydroxylase activity, 225
- Phenyldiguanide, effects on temporally separated aortic and carotid bodies, 33
- Philodina acuticornis*, egg deposition influenced by drugs, 123
- Physostigmine, effect on sympathetic ganglia, 335
- Pilocarpine, effect on sympathetic ganglia, 335
- Pipradrol, effects on operant behavior, 167
- Plasma substitutes, hydroxyethyl starch compared with others, 359
- Polymyxin, effect on calcification of tissues, 252
- Potassium, effect on normal myometrium and uterine leiomyoma, 313
- fluxes in muscle, effect of ouabain, 307
- salivary, effect of acetyl strophanthidin on, 298
- Potentiation, of morphine effect by serum from morphine-tolerant animals, 139
- Pronethalol, direct and adrenergic blocking actions on heart, 318
- Pullman, T. N., see Lavender, A. R., 87
- Pulmonary artery reflexogenic area, effect of nicotinic and muscarinic drugs, 404
- Receptors, effect of pronethalol on heart, 318
- Rech, R. H., 369
- Reed, D. J. and Woodbury, D. M., 154

- Reserpine, and retention of norepinephrine by heart microsomes *in vitro*, 54
 depression of conditioned behavior antagonized by reserpine, 369
 effect on intestinal motility and release of stimulant lipids, 215
 enhancement of *d*-amphetamine effect on operant behavior, 167
 release of 5-HT from neoplastic mast cells, 74
 reversal of chlorpromazine-induced depression, 180
- Rhodexin A, cardiovascular actions of, 365
- Rocha e Silva, M., Jr. and Malnic, G., 24
- Rogers, L. A. and Fouts, J. R., 286
- Rosenberg, F. J. and Savarie, P. J., 180
- Rosenblum, I. and Stein, A. A., 313
- Rotifers, influence of cholinergic drugs on egg deposition, 123
- Rowe, H., *see* Gabel, L. P., 117
- Rubidium-86, effect of drugs on uptake in dog hindlimb, 117
- Rylander, R., *see* Berlin, M., 236
- Salivary glands, effect of acetyl strophanthidin on potassium, 298
- Salmoiraghi, G. C., *see* Bloom, F. E., 16
- Sanders, P. G., *see* Wiegand, R. G., 271
- Sarkar, N. and Fosdick, L. S., 258
- Savarie, P. J., *see* Rosenberg, F. J., 180
- Schaer, H., 111
- Schneidman, K., *see* Conney, A. H., 225
see Kuntzman, R., 280
- Schulman, M. P., *see* Vogel, W. H., 66
- Seidel, G., *see* Netter, K. J., 61
- Self-stimulation, effect of 5-hydroxytryptamine, 147
- Selye, H., Tuchweber, B. and Caruso, P. L., 252
- Serotonin, effects on temporally separated aortic and carotid bodies, 33
see 5-hydroxytryptamine, 74, 147, 209
 uptake by uterus, heart and spleen, 276
- Serum, morphine-potentiating properties, 139
- Shore, P. A., Busfield, D. and Alpers, H. S., 194
- Siegel, I. A. and Acheson, G. H., 298
- Sinoatrial node, effects of pentobarbital and calcium on rate, 111
 of heart, effect of 5-hydroxytryptamine on, 209
- Sjoerdsma, A., *see* Levine, R. J., 42
- SKF 525A, effect on microsomal drug metabolism, 286
 natriuretic effect in dogs, 265
- Smith, C. B., 167
- Smith, C. M., *see* Albuquerque, E. X., 344
- Smooth muscle, effect of dicyclomine on guinea-pig ileum, 354
- Snyder, R., *see* Vogel, W. H., 66
- Snyder, S. H., Wurtman, R. J., Axelrod, J. and Chu, E. W., 276
- Spinal cord, role in morphine addiction, 385
- Stark, P., Boyd, E. S. and Fuller, R. W., 147
- Stein, A. A., *see* Rosenblum, I., 313
- Steroid hydroxylases, enhancement of activity in liver microsomes by phenylbutazone, 225
 similarity to drug metabolizing enzymes in liver microsomes, 280
- Stimulant lipids, 215
- Straw, R. N. and Mitchell, C. L., 7
- Strychnine, influence of altitude on action, 160
- Succinylcholine excitation of muscle spindle afferent nerves, 344
- Takehige, C. and Volle, R. L., 327, 335
- Tetraethylammonium, effect on segmental vascular reactivity, 200
 influence of thyroxine and analogues on renal uptake, 294
- Tetramethylammonium, effect on sympathetic ganglia, 335
- Thompson, W. L. and Walton, R. P., 359
- Thyroxine and analogues, effect on renal uptake of *para*-aminohippurate and tetraethylammonium, 294
- Tilton, B. E., *see* Peterson, D. I., 175
- Timiras, P. S., *see* Castillo, L. S., 160
- Tolerance to morphine, production of morphine potentiating serum, 139
- p*-Tolyether of choline (TEC), and retention of norepinephrine by heart microsomes *in vitro*, 54
- Tooth pulp evoked potentials, effects of drugs on, 7
- Tooth pulp thresholds, as analgesic test, 1
- Toxicity of amphetamine, neuromuscular blocking action as a component, 175
- Trachea, effect of benzquinamide and 5-hydroxytryptamine, 400
- Trendelenburg, U., *see* Langer, S. Z., 99
- Tuchweber, B., *see* Selye, H., 252
- Tyramine, effect on retention of norepinephrine by heart microsomes *in vitro*, 54
- Ungar, F., *see* Ertel, R. J., 395
- Urea, hypertonic, on brain excitability and electrolyte distribution, 154
- Uterus, effects of drugs on contractile activity, 313
 uptake and release of serotonin (5-hydroxytryptamine), 276
- Vaillant, G. E., 377
- Vascular reactivity, segmental, effect of drugs, 200
- Vasopressin, effect on hindlimb, 117
- Veratramine, action of atrial pacemaker, 99
- Veratridine, effect on sympathetic ganglia, 327

- Vogel, W. H., Snyder, R. and Schulman, M. P., 66
Volle, R. L., *see* Takeshige, C., 327, 335
- Walton, R. P., *see* Thompson, W. L., 359
Wiegand, R. G. and Sanders, P. G., 271
Williamson, H. E., *see* Hook, J. B., 265
- Winbury, M. M., *see* Gabel, L. P., 117
Woodbury, D. M., *see* Reed, D. J., 154
Wurtman, R. J., *see* Glowinski, J., 48
see Snyder, S. H., 276
- Zimmerman, B. G., 200