

INDEX

Volume 163, September–October 1968

- Absorption, of reserpine, comparison in infant and adult rats, 91
- Acetylcholine, effect on activation of cholinceptive sites in sympathetic ganglion, 64
- Acid, ethacrynic, diuretic activity in rats, 210
- 5-hydroxyindoleacetic, content in forebrain, 425
- pyrophosphoric, effect on norepinephrine uptake by rabbit aorta, 136
- Acidemia, hyperlactic, induced by catecholamines, effect of *beta* adrenergic blockade, 25
- Actinomycin D, and ethionine, effects of, on alteration of microsomal hemoprotein by 3-methylcholanthrene, 417
- Acylphenothiazine, antiinflammatory agent with steroid-like activity, 239
- Adenosine 3',5'-monophosphate, cyclic, relaxant effect on isolated rabbit ileum, 36
- Adenyl cyclase, in tissue homogenates, simple, sensitive method for the assay of, 379
- Adrenergic blockade, *beta*, effect on hyperglycemic response to catecholamines and on hyperlactic acidemia induced by catecholamines, 25
- Adrenergic blockers, *beta*, interactions of, steric aspects of adrenergic drugs, 309
- Adrenergic blocking agents, effects on responses of smooth muscle to potassium, 17
- Adrenergic drugs, steric aspects of, interactions of Dibenamine and *beta* adrenergic blockers, 309
- Adrenergic mechanisms, in rabbit, primate and human eyes, action of protriptyline on, 368
- Aghajanian, G. K., *see* Sheard, M. H., 425
- Aldehydes, aliphatic, cardiac effects of, 300
- Alper, M. H., *see* Gillis, R. A., 277
- Alvares, A. P., Schilling, G., Levin, W. and Kuntzman, R., 417
- Amaranth, renal and hepatic transport, 222
- Amine-depleting agents, interaction with sympathomimetic amines, effect on controlled behavior of the pigeon and squirrel monkey, 172
- Amines, biogenic, metabolism of, effects of stress, 163
- sympathomimetic, interaction with amine-depleting agents, effect on controlled behavior of the pigeon and squirrel monkey, 172
- d*-Amphetamine, enhanced stimulant effects of, in rats treated chronically with reserpine, 75
- Andersen, N. B., 393
- Anesthetic, local, and pH, effect on sodium and potassium flux in human red cells, 393
- Angiotensin, pattern of renal vasoconstriction and transmitter release during sympathetic stimulation in presence of, 320
- Anhydrase, carbonic, inhibitors of, and reserpine, interaction with anticonvulsant action of carbon dioxide, 431
- Antagonists, *beta* adrenergic, oral effectiveness in preventing epinephrine-induced metabolic responses, 25
- Anticholinesterase agents, actions upon ganglionic transmission in the dog, 277
- Anticonvulsant action, of carbon dioxide, interaction with reserpine and inhibitors of carbonic anhydrase, 431
- Antiinflammatory agents, with steroid-like activity, 239
- Aorta, disposition and termination of action of phenylephrine, effects of iproniazid, cocaine and methylphenidate, 1
- rabbit, effect of EDTA, 2',2'-bipyridine, 8-hydroxyquinoline and pyrophosphoric acid on norepinephrine uptake, 136
- Apomorphine, and phenylethylamines, structural requirements for dopamine-like renal vasodilation, 188
- Aqueous humor formation, action of protriptyline on, 368
- Askari, A. and Rao, S. N., 407
- Atrium, cat, autonomic innervation of, 343
- isolated, of the cat, effects of vagal and sympathetic nerve stimulation on, 330
- guinea-pig, actions and interactions of norepinephrine, tyramine and other drugs, effects of inhibition of monoamine oxidase, 98
- guinea-pig, metabolic requirements for uptake and storage of norepinephrine, 123
- Atropine, effect on activation of cholinceptive sites in sympathetic ganglion, 64
- excitation of esophageal smooth muscle, 287
- Autonomic innervation, of cat atria, 343
- Avoidance response suppression, reserpine-induced, blockade of L-dopa reversal by disulfiram, 84
- Bear, E. S., *see* James, T. N., 300
- Beecher, H. K., *see* Smith, G. M., 468
- Behavioral responses, to *d*-amphetamine in rats, effect of reserpine, 75
- Behavior, controlled, in the pigeon and squirrel monkey, effects of interactions between sympathomimetic amines and amine-depleting agents, 172
- Beta* adrenergic antagonists, oral effectiveness in preventing epinephrine-induced metabolic responses, 25
- Beta* adrenergic blockade, effect on hyperglycemic

- response to catecholamines and on hyperlactic acidemia induced by catecholamines, 25
- Beta* adrenergic blockers, interactions of, steric aspects of adrenergic drugs, 309
- Bevan, J. A., *see* Nedergaard, O. A., 136
- Bing, R. J., *see* Corsini, G., 353
- Biogenic amines, metabolism of, effects of stress, 163
- 2',2'-Bipyridine, effect on norepinephrine uptake by rabbit aorta, 136
- Blockade, by disulfiram, L-dopa reversal of reserpine-induced avoidance response suppression, 84
- Blocking agents, adrenergic, effects on responses of smooth muscle to potassium, 17
- Blood flow, renal, enhancement of, by furosemide, 456
- Borison, H. L., *see* Flórez, J., 448
- Bousquet, W. F., *see* Radzialowski, F. M., 229
- Boyd, E. M., and Sheppard, E. P., 250
- Brain, norepinephrine depletion in infant and adult rats, role of reserpine, 91
stimulation of the midbrain raphe, effect on serotonin metabolism, 425
- Brilliant blue, renal and hepatic transport, 222
- Brodie, B. B., *see* Krishna, G., 379
- Brody, M. J., *see* Ludens, J. H., 456
- Bronchodilator action, of phentolamine, 11
- Brown, J. H., Riggilo, D. A. and Dungan, K. W., 25
- Calcium, effects on responses of guinea-pig taenia coli to potassium, 17
- Calcium flux, in contracture of frog sartorius muscle, effect of nicotine, 43
- Capillary flow, of the heart, in normal dogs and animals with restricted coronary circulation, effect of nicotine on, 353
- Carbon dioxide, anticonvulsant action of, interaction with reserpine and inhibitors of carbonic anhydrase, 431
- Carbonic anhydrase, inhibitors of, and reserpine, interaction with anticonvulsant action of carbon dioxide, 431
- Cardiac effects, of some simple aliphatic aldehydes, 300
- Carmel, D. D., *see* Langham, M. E., 368
- Catecholamines, effect of *beta* adrenergic blockade on hyperglycemic response to and on hyperlactic acidemia induced by, 25
- Cells, human red, effect of local anesthetic and pH on sodium and potassium flux in, 393
sympathetic ganglion, production of stimulus-bound repetition by neostigmine in, 54
- Central nervous system, metabolism of norepinephrine, 147
metabolism of norepinephrine, dopamine and serotonin in, effects of stress, 163
- Cerebrospinal fluid, respiratory effects of morphine injected intravenously and into, 448
- Chelating agents, effect on norepinephrine uptake by rabbit aorta, 136
- 2-Chloro-10-(β -dimethylaminopropionyl)-phenothiazine-5-oxide hydrochloride, antiinflammatory agent with steroid-like activity, 239
- Chlorpromazine, effects on responses of guinea-pig taenia coli to potassium, 17
- Cholinoceptive sites, drug-induced activation of, in sympathetic ganglion, 64
- Christensen, J. and Lund, G. F., 287
- Circadian rhythm, in activity of hepatic microsomal enzymes, 229
- Circulation, restricted coronary, effect of nicotine on capillary flow and terminal vascular capacity of the heart in normal dogs and animals with, 353
- Cocaine, effects on disposition of phenylephrine in vascular tissue, 1
pattern of renal vasoconstriction and transmitter release during sympathetic stimulation in presence of, 320
- Coe, F. L., Howe, R. W. and Goetting, J. A., 216
- Contracture in frog sartorius muscle, site of action of nicotine, 43
- Corsini, G., Puri, P. S., Duran, P. V. M. and Bing, R. J., 353
- Cortex slices, rat kidney, reversible and irreversible inhibition of N¹-methylnicotinamide uptake into, 461
- Cyclic adenosine 3',5'-monophosphate, relaxant effect on isolated rabbit ileum, 36
- Decentralization, influence on *alpha* and *beta* effects of isoproterenol on the nictitating membrane of the cat, 257
of the nictitating membrane of the cat, decrease in effectiveness of phenoxybenzamine after, 290
- Denervation, influence on *alpha* and *beta* effects of isoproterenol on the nictitating membrane of the cat, 257
of the nictitating membrane of the cat, decrease in effectiveness of phenoxybenzamine after, 290
- Depressant action, central, of diazepam, 439
- Despopoulos, A., 222
- Diamine oxidase, simple and sensitive fluorescence assay for, 386
- Diazepam, locus of central depressant action of, 439
- Dibenamine, effects on responses of guinea-pig taenia coli to potassium, 17
interactions of, steric aspects of adrenergic drugs, 309
- Digital computer simulation, of the nephron, action of osmotic diuretics, 198

- Distribution, of reserpine, comparison in infant and adult rats, 91
- Disulfiram, blockade of L-dopa reversal of reserpine-induced avoidance response suppression, 84
- Diuretic activity, of ethacrynic acid in rats, 210
- Diuretics, osmotic, digital computer simulation of the nephron to study action of, 198
- L-Dopa, reversal of reserpine-induced avoidance response suppression, blockade by disulfiram, 84
- Dopamine, cause of renal vasodilation, use of phenylethylamines and apomorphine to study structural requirements for, 188
metabolism of, effects of stress in the central nervous system of the rat, 163
- Drug, adrenergic, steric aspects of, interactions of Dibenamine and *beta* adrenergic blockers, 309
-induced activation of cholinceptive sites, 64
metabolizing enzymes in liver, daily rhythmic variation in activity in the rat and mouse, 229
- Dungan, K. W., *see* Brown, J. H., 25
see Lish, P. M., 11
- Duran, P. V. M., *see* Corsini, G., 353
- Dyes, tartrazine, sunset yellow, amaranth and brilliant blue, renal and hepatic transport of, 222
- EDTA, effect on norepinephrine uptake by rabbit aorta, 136
- Ehrenpreis, S., *see* Fleisch, J. H., 362
- Enzymes, hepatic microsomal, daily rhythmic variation in activity in the rat and mouse, 229
- Epinephrine, oral effectiveness of *beta* adrenergic antagonists in preventing metabolic responses induced by, 25
- Erythrocyte ghosts, human, effects of purine nucleosides on sodium transport and lactate production in, 407
- Esophageal smooth muscle, excitation by atropine, 287
- Ethacrynic acid, diuretic activity in rats, 210
- Ethionine, and actinomycin D, effects of, on alteration of microsomal hemoprotein by 3-methylcholanthrene, 417
- Excretion, of monomethylhydrazine, by mammalian kidney, 216
- Experimental pain, produced by submaximum effort tourniquet technique, 468
- Eyes, rabbit, primate and human, action of protriptyline on adrenergic mechanisms in, 368
- Flacke, W. and Gillis, R. A., 266
see Gillis, R. A., 277
- Fleisch, J. H. and Ehrenpreis, S., 362
- Flórez, J., McCarthy, L. E. and Borison, H. L., 448
- Fluid, cerebrospinal, respiratory effects of morphine injected intravenously and into, 448
respiratory tract, effect of steam inhalation of volatile oils on output and composition of, 250
- Fluorescence assay, simple and sensitive, for monoamine oxidase and diamine oxidase, 386
- Food dyes, renal and hepatic transport of, 222
- Forebrain, content of serotonin and 5-hydroxyindoleacetic acid in, 425
- Frankenheim, J. M. and Shibata, S., 17
- Frog sartorius muscle, site of action of nicotine in calcium flux and contracture of, 43
- Fundal strip, rat, alteration in receptor activity by urea, 362
- Furchgott, R. F. and Sanchez Garcia, P., 98
see Wakade, A. R., 123
- Furosemide, enhancement of renal blood flow by, 456
- Ganglion, stellate, of the dog, impulse transmission *via* nicotinic and muscarinic pathways in, 266
sympathetic, drug-induced activation of cholinceptive sites and postganglionic discharge in, 64
- Ganglion cells, sympathetic, production of stimulus-bound repetition by neostigmine in, 54
- Ganglionic transmission, in the dog, actions of anticholinesterase agents upon, 277
- Garfield, J. M., *see* Gillis, R. A., 277
- Gebber, G. L. and Snyder, D. W., 64
- Gillis, R. A., Flacke, W., Garfield, J. M. and Alper, M. H., 277
see Flacke, W., 266
- Gisslen, J., *see* Zimmerman, B. G., 320
- Glowinski, J., *see* Thierry, A.-M., 163
- Goetting, J. A., *see* Coe, F. L., 216
- Goldberg, L. I., Sonnevile, P. F. and McNay, J. L., 188
- Gray, W. D. and Rauh, C. E., 431
- Guerrero, S., *see* Riker, W. K., 54
- Guinea-pig taenia coli, effects of chlorpromazine, phenoxybenzamine, Dibenamine and calcium on responses to potassium, 17
- Gussin, R. Z., *see* Zins, G. R., 210
- Heart, in normal dogs and animals with restricted coronary circulation, effect of nicotine on capillary flow and terminal vascular capacity of, 353
- Hemoprotein, microsomal, alteration of, by 3-methylcholanthrene, effects of ethionine and actinomycin D on, 417
- Hendley, E. D., *see* Snyder, S. H., 386
- Hepatic enzymes, microsomal, daily rhythmic variation in activity in the rat and mouse, 229
- Hepatic transport, of food dyes, 222

- Hetey, S., *see* Patil, P. N., 309
- Hexamethonium, effect on activation of cholinergic sites in sympathetic ganglion, 64
- Histamine, effect of phentolamine on, 11
- Homogenates, tissue, simple, sensitive method for the assay of adenylyl cyclase in, 379
- Hook, J. B., *see* Ludens, J. H., 456
- Howe, R. W., *see* Coe, F. L., 216
- Hubbard, J. H., *see* Smith, G. M., 468
- 5-Hydroxyindoleacetic acid, content in forebrain, 425
- 8-Hydroxyquinoline, effect on norepinephrine uptake by rabbit aorta, 136
- Hyperglycemic response, to catecholamines, effect of *beta* adrenergic blockade on, 25
- Hyperlactic acidemia, induced by catecholamines, effect of *beta* adrenergic blockade on, 25
- Ileum, isolated rabbit, relaxant effect of cyclic adenosine 3',5'-monophosphate, 36
- Impulse transmission, *via* nicotinic and muscarinic pathways in the stellate ganglion of the dog, 266
- Innervation, autonomic, of cat atria, 343
- Intraocular pressure, effect of protriptyline on, 368
- Iproniazid, effects on disposition of phenylephrine in vascular tissue, 1
- Isoproterenol, influence of denervation and decentralization on *alpha* and *beta* effects of, on the nictitating membrane of the cat, 257
- James, T. N. and Bear, E. S., 300
- Javoy, F., *see* Thierry, A.-M., 163
- Kalsner, S. and Nickerson, M., 1
- Kety, S. S., *see* Thierry, A.-M., 163
- Kidney, mechanism of monomethylhydrazine excretion by, 216
- Kidney cortex slices, rat, reversible and irreversible inhibition of N¹-methylnicotinamide uptake into, 461
- Kien, G. A. and Koushanpour, E., 198
- Kim, T. S., Shulman, J. and Levine, R. A., 36
- Kirpekar, S. M., *see* Misu, Y., 330, 343
- Koushanpour, E., *see* Kien, G. A., 198
- Krishna, G., Weiss, B. and Brodie, B. B., 379
- Kuntzman, R., *see* Alvares, A. P., 417
- Lactate production, and sodium transport, in human erythrocyte ghosts, effects of purine nucleosides on, 407
- Landis, D. H., *see* Maas, J. W., 147
- Langer, S. Z. and Trendelenburg, U., 290
- Langham, M. E. and Carmel, D. D., 368
- Levin, W., *see* Alvares, A. P., 417
- Levine, R. A., *see* Kim, T. S., 36
- Lish, P. M., Robbins, S. I. and Dungan, K. W., 11
- Local anesthetic, and pH, effect on sodium and potassium flux in human red cells, 393
- Lowenstein, E., *see* Smith, G. M., 468
- Ludens, J. H., Hook, J. B., Brody, M. J. and Williamson, H. E., 456
- Lund, G. F., *see* Christensen, J., 287
- Maas, J. W. and Landis, D. H., 147
- Maass, A. R., Sosnowski, G., Wiebelhaus, V. D. and Weinstock, J., 239
- May, C., *see* Patil, P. N., 309
- McCarthy, L. E., *see* Flórez, J., 448
- McMillan, D. E., 172
- McNay, J. L., *see* Goldberg, L. I., 188
- Membrane, nictitating, of the cat, decrease in effectiveness of phenoxybenzamine after denervation and decentralization of, 290
- nictitating, of the cat, influence of denervation and decentralization on *alpha* and *beta* effects of isoproterenol on, 257
- Metabolic responses, epinephrine-induced, oral effectiveness of *beta* adrenergic antagonists in prevention of, 25
- Metabolism, hepatic drug, daily rhythmic variation of, in the rat and mouse, 229
- of norepinephrine, dopamine and serotonin, effects of stress in the central nervous system of the rat, 163
- of norepinephrine in the central nervous system *in vivo*, 147
- of reserpine, comparison in infant and adult rats, 91
- requirements of, for uptake and storage of norepinephrine by guinea-pig atrium, 123
- serotonin, effect of stimulation of the midbrain raphe on, 425
- 3-Methylcholanthrene, alteration of microsomal hemoprotein by, effects of ethionine and actinomycin D on, 417
- N¹-methylnicotinamide uptake, into rat kidney cortex slices, reversible and irreversible inhibition of, 461
- Methylphenidate, effects on disposition of phenylephrine in vascular tissue, 1
- Midbrain raphe, stimulation of, effect on serotonin metabolism, 425
- Misu, Y. and Kirpekar, S. M., 330, 343
- Miyagi, S., *see* Patil, P. N., 309
- Monoamine oxidase, inhibition of, effects on actions and interactions of norepinephrine, tyramine and other drugs on guinea-pig left atrium, 98
- simple and sensitive fluorescence assay for, 386
- Monomethylhydrazine, mechanism of excretion by mammalian kidney, 216
- 3',5'-Monophosphate, cyclic adenosine, relaxant effect on isolated rabbit ileum, 36

- Morphine, respiratory effects of, comparison of intravenous and intraventricular injections of, 448
- Mueller, R. A. and Shideman, F. E., 91
- Muscarinic pathways, in the stellate ganglion of the dog, impulse transmission, 266
- Muscle, esophageal smooth, excitation by atropine, 287
- frog sartorius, site of action of nicotine in calcium flux and contracture of, 43
- smooth, alteration in receptor activity by urea, 362
- Nedergaard, O. A., Vagne, A. and Bevan, J. A., 136
- Neostigmine, effect on production of stimulus-bound repetition in sympathetic ganglion cells, 54
- Nephron, digital computer simulation of, action of osmotic diuretics, 198
- Nerve stimulation, vagal and sympathetic, effects on isolated atria of the cat, 330
- Nervous system, central, metabolism of norepinephrine, 147
- central, metabolism of norepinephrine, dopamine and serotonin in, effects of stress, 163
- Nickerson, M., *see* Kalsner, S., 1
- Nicotine, effect on capillary flow and terminal vascular capacity of the heart in normal dogs and animals with restricted coronary circulation, 353
- site of action in calcium flux and contracture in frog sartorius muscle, 43
- Nicotinic pathways, in the stellate ganglion of the dog, impulse transmission, 266
- Nictitating membrane, of the cat, decrease in effectiveness of phenoxybenzamine after denervation and decentralization of, 290
- of the cat, influence of denervation and decentralization on *alpha* and *beta* effects of isoproterenol on, 257
- Norepinephrine, actions and interactions on guinea-pig left atrium, effects of inhibition of monoamine oxidase, 98
- depletion in brain of infant and adult rats, role of reserpine, 91
- effect of EDTA, 2',2'-bipyridine, 8-hydroxyquinoline and pyrophosphoric acid on uptake by rabbit aorta, 136
- metabolic requirements for uptake and storage by guinea-pig atrium, 123
- metabolism and modifications of turnover, effects of stress in the central nervous system of the rat, 163
- metabolism in the central nervous system *in vivo*, 147
- Norepinephrine storage, by guinea-pig atrium, metabolic requirements for, 123
- Norepinephrine turnover, modifications in the central nervous system, effects of stress on metabolism, 163
- Norepinephrine uptake, by guinea-pig atrium, metabolic requirements for, 123
- by rabbit aorta, effect of EDTA, 2',2'-bipyridine, 8-hydroxyquinoline and pyrophosphoric acid, 136
- Nucleosides, purine, effects on sodium transport and lactate production in human erythrocyte ghosts, 407
- Oil-immersion technique, for determination of disposition of phenylephrine in vascular tissue, 1
- Oils, volatile, effect on output and composition of respiratory tract fluid of steam inhalation of, 250
- Osmotic diuretics, digital computer simulation of the nephron to study action of, 198
- Oxidase, monoamine and diamine, simple and sensitive fluorescence assay for, 386
- Pain, experimental, produced by submaximum effort tourniquet technique, 468
- Patil, P. N., Tye, A., May, C., Hetey, S. and Miyagi, S., 309
- Peterson, D. D., *see* Seiden, L. S., 84
- pH, and local anesthetic, effect on sodium and potassium flux in human red cells, 393
- Phenoxybenzamine, decrease in effectiveness of, after denervation and decentralization of the nictitating membrane of the cat, 290
- effects on responses of guinea-pig taenia coli to potassium, 17
- Phentolamine, mode of bronchodilator action, effect on histamine, 11
- Phenylephrine, effects of iproniazid, cocaine and methylphenidate on disposition in vascular tissue, determined by oil-immersion technique, 1
- Phenylethylamines, and apomorphine, structural requirements for dopamine-like renal vasodilation, 188
- Pluchino, S. and Trendelenburg, U., 257
- Postganglionic discharge, in sympathetic ganglion, 64
- Potassium, effects of chlorpromazine, phenoxybenzamine, Dibenamine and calcium on responses to, in guinea-pig taenia coli, 17
- Potassium flux, in human red cells, effect of local anesthetic and pH on, 393
- Pressure, intraocular, effect of protriptyline on, 368
- Protriptyline, action on adrenergic mechanisms in rabbit, primate and human eyes, 368
- Przybyla, A. C. and Wang, S. C., 439

- Pupillary diameter, action of protriptyline on, 368
 Puri, P. S., *see* Corsini, G., 353
 Purine nucleosides, effects on sodium transport and lactate production in human erythrocyte ghosts, 407
 Pyrophosphoric acid, effect on norepinephrine uptake by rabbit aorta, 136
- Radzialowski, F. M. and Bousquet, W. F., 229
 Rao, S. N., *see* Askari, A., 407
 Raphe, midbrain, stimulation of, effect on serotonin metabolism, 425
 Rauh, C. E., *see* Gray, W. D., 431
 Receptor activity, of the rat fundal strip, alteration by urea, 362
 Rech, R. H., *see* Stolk, J. M., 75
 Renal blood flow, enhancement of, by furosemide, 456
 Renal excretion, of monomethylhydrazine, 216
 Renal function, simulation of the nephron by digital computer, 198
 Renal transport, of food dyes, 222
 Renal vasoconstriction, pattern of, during sympathetic stimulation in presence of angiotensin and cocaine, 320
 Renal vasodilation, caused by dopamine, use of phenylethylamines and apomorphine to study structural requirements for, 188
 Reserpine, and inhibitors of carbonic anhydrase, interaction with anticonvulsant action of carbon dioxide, 431
 comparison of absorption, distribution and metabolism of, role in brain norepinephrine depletion in infant and adult rats, 91
 effect on behavioral responses to *d*-amphetamine in rats, 75
 induced avoidance response suppression, blockade of L-dopa reversal by disulfiram, 84
 Respiration, comparison of intravenous and intraventricular injections of morphine on, 448
 Respiratory effects, of morphine injected intravenously and into cerebrospinal fluid, 448
 Respiratory tract fluid, effect of steam inhalation of volatile oils on output and composition of, 250
 Reversal, of reserpine-induced avoidance response suppression by L-dopa, blockade by disulfiram, 84
 Reynard, A. M., 461
 Riggilo, D. A., *see* Brown, J. H., 25
 Riker, W. K. and Guerrero, S., 54
 Robbins, S. I., *see* Lish, P. M., 11
 Ross, C. R., *see* Zins, G. R., 210
- Sanchez Garcia, P., *see* Furchgott, R. F., 98
 Sartorius muscle, frog, site of action of nicotine in calcium flux and contracture of, 43
 Schilling, G., *see* Alvares, A. P., 417
 Seiden, L. S. and Peterson, D. D., 84
 Serotonin, content in forebrain, 425
 Serotonin metabolism, effect of stimulation of the midbrain raphe on, 425
 effects of stress in the central nervous system of the rat, 163
 Sheard, M. H. and Aghajanian, G. K., 425
 Sheppard, E. P., *see* Boyd, E. M., 250
 Shibata, S., *see* Frankenheim, J. M., 17
 Shideman, F. E., *see* Mueller, R. A., 91
 Shulman, J., *see* Kim, T. S., 36
 SK&F 17910-A, antiinflammatory agent with steroid-like activity, 239
 Smith, G. M., Lowenstein, E., Hubbard, J. H. and Beecher, H. K., 468
 Smooth muscle, alteration in receptor activity by urea, 362
 esophageal, excitation by atropine, 287
 relaxant effect of cyclic adenosine 3',5'-monophosphate, 36
 responses to potassium after adrenergic blocking agents and calcium, 17
 Smooth muscle relaxant, effect of cyclic adenosine 3',5'-monophosphate, 36
 Snyder, D. W., *see* Gebber, G. L., 64
 Snyder, S. H. and Hendley, E. D., 386
 Sodium flux, in human red cells, effect of local anesthetic and pH on, 393
 Sodium transport, and lactate production, in human erythrocyte ghosts, effects of purine nucleosides on, 407
 Sonnevile, P. F., *see* Goldberg, L. I., 188
 Sosnowski, G., *see* Maass, A. R., 239
 Steam inhalation, of volatile oils, effect on output and composition of respiratory tract fluid, 250
 Stellate ganglion, of the dog, impulse transmission *via* nicotinic and muscarinic pathways in, 266
 Steroid, antiinflammatory agents with activity similar to, 239
 Stimulant, enhanced effects of *d*-amphetamine in rats treated chronically with reserpine, 75
 Stimulus-bound repetition, production by neostigmine in sympathetic ganglion cells, 54
 Stolk, J. M. and Rech, R. H., 75
 Storage, of norepinephrine in guinea-pig atrium, metabolic requirements for, 123
 Stress, effects on metabolism of norepinephrine, dopamine and serotonin in the central nervous system of the rat, 163
 Sunset yellow, renal and hepatic transport, 222
 Sympathetic ganglion, effect of acetylcholine, atropine, hexamethonium and tetramethylammonium on activation of cholinergic sites and postganglionic discharge in, 64
 Sympathetic ganglion cells, production of stimulus-bound repetition by neostigmine in, 54

- Sympathetic nerve stimulation, effects on isolated atria of the cat, 330
- Sympathetic stimulation, in presence of angiotensin and cocaine, pattern of renal vasoconstriction and transmitter release during, 320
- Sympathomimetic amines, interaction with amine-depleting agents, effect on controlled behavior of the pigeon and squirrel monkey, 172
- Taenia coli, guinea-pig, effects of chlorpromazine, phenoxybenzamine, Dibenamine and calcium on responses to potassium, 17
- Tartrazine, renal and hepatic transport, 222
- Tetramethylammonium, effect on activation of cholinceptive sites in sympathetic ganglion, 64
- Thierry, A.-M., Javoy, F., Glowinski, J. and Kety, S. S., 163
- Tissue homogenates, simple, sensitive method for the assay of adenylyl cyclase in, 379
- Tourniquet technique, submaximum effort, experimental pain produced by, 468
- Transmitter release, pattern of, during sympathetic stimulation in presence of angiotensin and cocaine, 320
- Transport, renal and hepatic, of food dyes, 222
- Trendelenburg, U., *see* Langer, S. Z., 290
see Pluchino, S., 257
- Tye, A., *see* Patil, P. N., 309
- Tyramine, actions and interactions on guinea-pig left atrium, effects of inhibition of monoamine oxidase, 98
- Uptake, of N¹-methylnicotinamide, into rat kidney cortex slices, reversible and irreversible inhibition of, 461
- of norepinephrine in guinea-pig atrium, metabolic requirements for, 123
- Urea, alteration in receptor activity of smooth muscle by, 362
- Vagal nerve stimulation, effects on isolated atria of the cat, 330
- Vagne, A., *see* Nedergaard, O. A., 136
- Vascular capacity, terminal, of the heart, in normal dogs and animals with restricted coronary circulation, effect of nicotine on, 353
- Vascular tissue, disposition of phenylephrine determined by oil-immersion technique, 1
- Vasoconstriction, renal, pattern of, during sympathetic stimulation in presence of angiotensin and cocaine, 320
- Vasodilation, renal, caused by dopamine, use of phenylethylamines and apomorphine to study structural requirements for, 188
- Volatile oils, effect on output and composition of respiratory tract fluid of steam inhalation of, 250
- Wakade, A. R. and Furchgott, R. F., 123
- Walk, R. A., *see* Zins, G. R., 210
- Wang, S. C., *see* Przybyla, A. C., 439
- Weinstock, J., *see* Maass, A. R., 239
- Weiss, B., *see* Krishna, G., 379
- Weiss, G. B., 43
- Wiebelhaus, V. D., *see* Maass, A. R., 239
- Williamson, H. E., *see* Ludens, J. H., 456
- Zimmerman, B. G. and Gisslen, J., 320
- Zins, G. R., Walk, R. A., Gussin, R. Z. and Ross, C. R., 210