

Syringopine (*cont.*)

- , effect on response of heart beat to ganglionic stimulation and tyramine, **25**, 582
 —, induction of gastric haemorrhage and erosion and sedation by, **14**, 114

T

- TA 20. See Ethyl 4-phenyl-1-(2-tetrahydropyran-4'-yl-ethyl)piperidine-4-carboxylate
 TA 24. See Ethyl 1-(2-ethoxyethyl)-4-phenylpiperidine-4-carboxylate
 TA 25. See Ethyl 1-(3-ethoxypropyl)-4-phenylpiperidine-4-carboxylate
 TA 27. See Ethyl 1-(2-phenoxyethyl)-4-phenylpiperidine-4-carboxylate
 TA 28. See Benzethidine
 TA 29. See Ethyl 1-(2-methoxyethyl)-4-phenylpiperidine-4-carboxylate
 TA 30. See Ethyl 1-(2-*p*-chlorophenoxyethyl)-4-phenylpiperidine-4-carboxylate
 TA 32. See Ethyl 1-(5-ethoxypentyl)-4-phenylpiperidine-4-carboxylate
 TA 33. See Ethyl 1-(4-ethoxybutyl)-4-phenylpiperidine-4-carboxylate
 TA 34. See Ethyl 4-phenyl-1-(2-propoxyethyl)piperidine-4-carboxylate
 TA 35. See Ethyl 1-(2-isopropoxyethyl)-4-phenylpiperidine-4-carboxylate
 TA 36. See Ethyl 1-(2-butoxyethyl)-4-phenylpiperidine-4-carboxylate
 TA 37. See Ethyl 1-(2-*m*-chlorophenoxyethyl)-4-phenylpiperidine-4-carboxylate
 TA 38. See Ethyl 1-[2-(2-ethoxyethoxy)ethyl]-4-phenylpiperidine-4-carboxylate
 TA 39. See Ethyl 1-(2-*m*-methoxyphenoxyethyl)-4-phenylpiperidine-4-carboxylate
 TA 40. See Ethyl 1-(2-*p*-acetamidophenoxyethyl)-4-phenylpiperidine-4-carboxylate
 TA 41. See Ethyl 1-(2-*p*-methoxyphenoxyethyl)-4-phenylpiperidine-4-carboxylate
 TA 42. See Ethyl 1-(2-cyclohexyloxyethyl)-4-phenylpiperidine-4-carboxylate
 TA 43. See Ethyl 1-(2-*p*-ethoxycarbonylphenoxyethyl)-4-phenylpiperidine-4-carboxylate
 TA 44. See Ethyl 4-phenyl-1-(2-*m*-tolylxyethyl)piperidine-4-carboxylate
 TA 45. See Ethyl 4-phenyl-1-(2-*o*-tolylxyethyl)piperidine-4-carboxylate
 TA 46. See Ethyl 1-(2-*p*-nitrophenoxyethyl)-4-phenylpiperidine-4-carboxylate
 TA 47. See Ethyl 4-phenyl-1-(2-*p*-tolylxyethyl)piperidine-4-carboxylate
 TA 48. See Furethidine
 TA 49. See Ethyl 4-phenyl-1-(2-tetrahydropyran-2'-yl-methoxyethyl)piperidine-4-carboxylate
 TA 51. See Ethyl 1-(2-diphenyl-4'-yloxyethyl)-4-phenylpiperidine-4-carboxylate
 TA 53. See Ethyl 1-(2-*m*-nitrophenoxyethyl)-4-phenylpiperidine-4-carboxylate
 TA 54. See Ethyl 1-(2-naphth-2'-yloxyethyl)-4-phenylpiperidine-4-carboxylate
 TA 55. See Ethyl 1-(2-*o*-nitrophenoxyethyl)-4-phenylpiperidine-4-carboxylate
 TA 56. See Ethyl 4-phenyl-1-(2-phenylthioethyl)piperidine-4-carboxylate
 TA 57. See Ethyl 4-phenyl-1-tetrahydrofurfurylpiperidine-4-carboxylate
 TA 58. See Ethyl 1-(2-ethylthioethyl)-4-phenylpiperidine-4-carboxylate
 TA 59. See Ethyl 1-(2-methylthioethyl)-4-phenylpiperidine-4-carboxylate
 TA 60. See Ethyl 1-(2-*o*-methoxyphenoxyethyl)-4-phenylpiperidine-4-carboxylate
 TA 61. See Ethyl 1-[2-(2-phenoxyethoxy)ethyl]-4-phenylpiperidine-4-carboxylate
 TA 62. See Ethyl 1-(4-phenoxybutyl)-4-phenylpiperidine-4-carboxylate
 TA 63. See Ethyl 4-phenyl-1-(4-tetrahydrofurfuryloxybutyl)piperidine-4-carboxylate
 TA 64. See Ethyl 4-phenyl-1-(4-tetrahydropyran-2'-yloxybutyl)piperidine-4-carboxylate
 TA 65. See Ethyl 4-phenyl-1-(2-tetrahydropyran-2'-yloxyethyl)piperidine-4-carboxylate
 TA 69. See Ethyl 1-(6-ethoxyhexyl)-4-phenylpiperidine-4-carboxylate
 TA 70. See Ethyl 4-phenyl-1-(3-tetrahydrofurfuryloxypropyl)piperidine-4-carboxylate
 TA 98. See Ethyl 4-phenyl-1-(3-tetrahydrofurylpropyl)piperidine-4-carboxylate
 TA 101. See Ethyl 1-(3-methoxypropyl)-4-phenylpiperidine-4-carboxylate
 TA 103. See Ethyl 4-phenyl-1-(4-tetrahydrofurylbutyl)piperidine-4-carboxylate
 TA 108. See Ethyl 4-phenyl-1-(5-tetrahydrofurylpentyl)piperidine-4-carboxylate
 TA 109. See Ethyl 4-phenyl-1-(2-tetrahydrofurylethyl)piperidine-4-carboxylate
 TEPA. See Tri(aziridin-1-yl)phosphine oxide
 TEPP. See Ethyl pyrophosphate
 TM 10. See Xylocholine
 TMB-4. See 1,1'-Trimethylenebis(4-hydroxyiminomethylpyridinium bromide)
 TTM 10. See Dimethyl(2-xylyloxyethyl)amine
Tachycardia, ectopic ventricular, induction by acute myocardial infarction, and effect of nialamide on, in **fig. 19**, 394
 —, induction by adrenaline, **24**, 614
 —, induction by BW 392C60, **20**, 50
 —, induction by bethanidine, **20**, 41, 42
 —, induction by bretylium, **14**, 541
 —, induction by ganglionic stimulation, effect of pronethalol and propranolol on, **25**, 583
 —, induction by guanoxan, **24**, 36
 —, induction by imipramine, and effect of atropine, bretylium, chlorisondamine, guanethidine, methyl-dopa, phenoxybenzamine and pronethalol on, in reserpinized rat, **23**, 336
 —, induction by leptodactyline, **15**, 17
 —, ventricular, induction by ouabain, and effect on metabolism and performance of heart, **14**, 355
 See also Heart beat
Tachyphylaxis, and cross-tachyphylaxis, to central action of sympathomimetic and related amines, in chick, **25**, 711
 —, to action of histamine on sympathetic ganglia, **14**, 180
 —, to anticurare action of ethyl pyrophosphate, **13**, 525
 —, to antitetanus action of phenothiazine derivatives, **16**, 296
 —, to response of blood pressure to eledoisin, in cat, **20**, 521
 —, to response of blood pressure to hexamethonium and pentolinium, **13**, 480
 —, to response of blood pressure to indirectly acting sympathomimetic amines, role of monoamine oxidases in, **21**, 84
 —, to response of blood pressure to peptone, in atropinized rat, **13**, 179

Tachyphylaxis (cont.)

- , to response of blood pressure to physalaemin, 25, 386
- , to response of blood pressure to tyramine, 16, 321; 24, 527
- , to responses of blood pressure and heart beat to mephentermine, in dog, 24, 527
- , to responses of blood pressure, respiration and small intestine to *Gluta renghas* extracts, 15, 444
- , to response of bronchial muscle to bradykinin, 19, 174
- , to response of heart beat to histamine, 21, 454
- , to response of heart beat to tyramine, mechanism of, 19, 56
- , —, and relation to noradrenaline in heart, 20, 127
- , to response of nictitating membrane to cocaine, 22, 8
- , to response of peripheral blood vessels to vasopressin, 19, 175
- , to response of rectal caecum to adenosine and its phosphates, 17, 152
- , to response of small intestine to 5-hydroxytryptamine, 13, 445
- , to response of smooth muscle to leptodactylin, 15, 20
- , to response of smooth muscle to stimulants, membrane-potential changes associated with, 15, 611
- , to response of splenic muscle to tyramine, 19, 432
- , to response of striated muscle to scorpion venom, 14, 335
- , to response of uterus to carbachol and 5-hydroxytryptamine, 13, 495
- , to response of *Venus* heart to 5-hydroxytryptamine, 15, 370
- Tachypnoea**, induction by mepesulphate, in cat, 17, 533
- , induction by phenyldiguanide, 14, 533
- See also Respiration
- Tacrine**, effect on response of striated muscle to acetylcholine, carbachol and decamethonium, 25, 179
- , effect on toxicity of suxamethonium, in chick, 25, 183
- , lachrymatory and sialogenous actions of, 25, 183
- , response of striated muscle to, 25, 179
- Taenia coli preparation**, guinea-pig, action and membrane potentials and tension of, effect of replacing chloride ions in bath fluid by ethanesulphonate ions on, 14, 361
- , human, pharmacological responses of, 23, 164
- Tannic acid**, effect on response of hypodynamic heart to ouabain, in calcium-free Ringer solution, 19, 186
- , peroxide in, 18, 169
- , response of heart beat to, 18, 169
- , response of heart beat depressed by acetylcholine, calcium-lack, ether, potassium-excess and thiopentone to, 21, 81
- , response of hypodynamic heart to, in calcium-free Ringer solution, 19, 186
- Tannin**, cardioactive, from *Paullinia pinnata*, effect on response of heart beat to ouabain, and action of calcium ions, 18, 167
- , —, —, extraction and identification of, 18, 173
- , —, —, response of heart beat to, and effect of calcium ions, cysteine, glutathione and pyruvate on, 18, 167
- Tapes watlingi**, heart of, pharmacological responses of, 25, 481
- Tapeworm, dwarf. See *Hymenolepis nana*
- Tartar emetic. See Antimony potassium tartrate

- Tartronic acid**, effect on ventral root potentials in spinal cord, 16, 262
- Taurine**, depression of cortical neurones by, 23, 313
- , effect on ventral root potentials in spinal cord, 16, 262
- Tauroglycocholic acid**, effect on trypanocidal action of butarsen and physical and other properties of, 14, 435
- See also Bile salts
- ω -t-Butylamino-*p*-hydroxyacetophenone, *in-ovo* and *in-vitro* effect on influenza virus, 13, 408
- Teeth**, abnormalities in, induction by administration of sulphamoprine to dam during pregnancy, in mouse and rat, 23, 305
- Teleost**, autonomic nervous control of gut in, mechanism of, 13, 216
- Telmatobius spp.**, skin of, physalaemin-like polypeptides in, 25, 367
- Temperature**, ambient, effect on action of chlorpromazine on body temperature and pheniprazine-induced accumulation of 5-hydroxytryptamine in brain, in mouse, 24, 503
- , —, effect on action of chlorpromazine on urinary excretion of creatinine and 5-hydroxyindol-3-ylacetic acid, in mouse, 24, 500
- , —, effect on action of chlorpromazine and reserpine on toxicity of schradan, 14, 253
- , —, effect on action of reserpine on acetylcholine and 5-hydroxytryptamine in brain, in rat, 19, 228
- , —, effect on cardiac rhythm and electrically induced ventricular fibrillation in Langendorff heart preparation, 14, 183
- , —, effect on hyperglycaemic action of chlorpromazine, in rat, 23, 95
- , —, effect on intestinal peristaltic reflex, 13, 267
- , —, effect on response of isolated diaphragm to acetylcholine, decamethonium, electrical stimulation, potassium ions and suxamethonium, 15, 345
- , —, effect on toxicity of amphetamine, in grouped and isolated mice, 19, 247
- , —, effect on triglycerides in liver, and action of salicylate on, in rat, 25, 191
- , —, low, effect on heart beat, 25, 120
- , body, effect on action of histamine on acid gastric secretion, in rat, 13, 57
- , —, response to γ -amino- β -hydroxybutyric acid, 24, 463, 464
- , —, response to amitriptyline, chlorpromazine, dexamphetamine, imipramine, pethidine, trifluoperazine and trimipramine, and effect of monoamine-oxidase inhibitors on, in rabbit, 25, 161
- , —, response to chlorophenols and phenol, 13, 22
- , —, response to dioscine, 13, 214
- , —, response to dopa, harmaline, 5-hydroxytryptamine, iproniazid and methyl dopa, in mouse, 15, 324
- , —, response to hexobarbitone and reserpine, in mouse, 15, 324
- , —, response to 5-hydroxytryptamine and phenyldiguanide, 14, 533
- , —, response to mono- and di-nitrophenols and related compounds, in rat, 13, 27
- , —, response to pheniprazine, in mouse, 24, 504
- , —, response to reserpine, effect of γ -amino- β -hydroxybutyric acid on, 24, 463
- , —, response to substituted glyoxylamides, in rabbit, 23, 48
- , —, response to *N*-substituted tryptamines, in rabbit, 23, 51
- , —, response to thalidomide, in rabbit, 15, 114

Temperature (cont.)

- , myocardial, response to isoprenaline, **24**, 603
- , —, response to pronethalol, **24**, 603
- See also Hyperthermic action and Hypothermic action

Tenuissimus muscle, response to nerve stimulation, and *in-vitro* and *in-vivo* effect of neuromuscular blocking agents and anticholinesterases on, **18**, 204

Teratogenic action, of sulphamoprine, in mouse and rat, **23**, 305

- , of tetracyclines, **25**, 321
- , —, possible relation to stability of drugs, **23**, 445
- , of thalidomide, **21**, 343
- , —, and effect of L- and DL-glutamine on, in rabbit, **25**, 356
- , possible method of testing drugs for, **23**, 527

SS'-Terephthaloylbis(3-thiopropylene sulphide), anti-tubercular action and toxicity of, **15**, 485

Testes, effect of busulphan and monoethyleneurea on, **14**, 152

- , effect of hydrocortisone, prednisolone and prednisone on, in rat, **13**, 99
- , effect of mecamlamine and pempidine and its N-ethyl homologue on, **13**, 517
- , effect of reserpine on, in chick, **17**, 268
- , localization of bemegride in, **14**, 36

Testosterone, effect on urinary excretion of histamine, in female rat, **16**, 50

- , —, and action of aminoguanidine, in male and female rats, **19**, 66
- , effect on urinary excretion of histamine and methyl-histamine, in intact, castrated and histidine-treated male and female rats, **19**, 68

Testosterone propionate, effect on histamine and 5-hydroxytryptamine in tissues, in rat, **15**, 537

Tetanus, effect on action of adrenaline and isoprenaline on response of fast- and slow-contracting muscles to direct and indirect stimulation, **19**, 466

- , effect on action of tubocurarine on response of fast- and slow-contracting muscles to indirect stimulation, and action of dichloroisoprenaline, phenoxybenzamine, phentolamine and pronethalol (2-isopropylamino-1-naphth-2'-ylethanol) on, **19**, 478
- , effect on action potentials in fast- and slow-contracting muscles, **19**, 472

- , effect on response of fast- and slow-contracting muscles to electrical stimulation, **19**, 464

—, experimental, effect of chlorpromazine and meph-
enesin in, in intact, spinal and decerebrate rabbits, **18**, 150

- , —, local, effect of barbiturates, betanaphthoxy-ethanol, mephenesin, phenothiazine derivatives and various other substances in, **13**, 334

—, —, —, effect of mephenesin and thiopentone in, **13**, 331

—, experimental and phenothiazine - derivative - in -
duced, differences between, **16**, 303

—, treatment with methotrimeprazine, in man, **16**, 305

Tetanus toxin, facilitation of linguomandibular reflex by, effect of central muscle relaxants on, **25**, 75

—, facilitation of patellar reflex by, effect of haloperidol on, **25**, 752

Tetra(p-aminophenoxymethyl)methane, schistosomicidal action and toxicity of, **13**, 240

Tetrabenazine, effect on action of imipramine on toxicity of yohimbine, **21**, 57

- , effect on catechol amines in adrenals, **21**, 61
- , effect on noradrenaline in brain, **21**, 61
- , facilitation of leptazol convulsions by, and effect of iproniazid on, in mouse, **14**, 108

Tetrabenazine (cont.)

- , induction of gastric haemorrhage and erosion and sedation by, **14**, 114

Tetrachloroethylene, *in-vitro* cesticidal action of, **15**, 437

—, response of *Ascaris lumbricoides* body movements to, **13**, 200

2,3,4,6-Tetrachlorophenol, dissociation constants, pharmacological actions and toxicity of, **13**, 21

1,1'-Tetracontamethylenebisisoquinolinium, *in-vitro* effect on *Hymenolepis nana*, **24**, 240

1,1'-Tetracosamethylenebisisoquinolinium, *in-vitro* cesticidal action of, **24**, 240

Tetracycline, binding by serum proteins, **25**, 638

—, effect in experimental infections with *Diplococcus pneumoniae*, *Klebsiella pneumoniae*, *Salmonella typhimurium*, *Staphylococcus aureus* and *Streptococcus pyogenes*, in mouse, **18**, 365

—, effect in experimental *Leptospira zanonii* infections, in mouse, **20**, 237

—, effect on development of chick embryo, **25**, 317

—, *in-vitro* effect on *Hymenolepis nana*, **15**, 437

—, effect on *in-vitro* metabolism of histamine by lung, **24**, 148

—, *in-vitro* sensitivity of Australian leptospiral serotypes to, **20**, 232

—, stability of, possible relation to deposition in foetal skeleton and induction of malformations, **23**, 445

—, *in-vitro* toxicity to skin, **14**, 168

Tetracyclines, effect on development of chick embryo, **25**, 317

—, localization in chick embryo, **25**, 318

—, stability of, possible relation to deposition in foetal skeleton and induction of malformations, **23**, 445

1,1'-Tetradecamethylenebisisoquinolinium, *in-vitro* cesticidal action of, **24**, 240

Tetradecamethylenebis(trialkylammonium) compounds, biochemical properties, pharmacological actions and molar conductances of, **23**, 131

N¹-Tetradecyloxydiguanide, antimicrobial action and toxicity of, **15**, 243

Tetraethyl pyrophosphate. See Ethyl pyrophosphate

Tetraethylammonium, antiacetylcholine action of, in rat, **24**, 94

—, anticurare action of, **19**, 210

—, anticurare and antisuxamethonium actions of, effect of proadifen (2-diethylaminoethyl 3,3-diphenylpropylacetate) on, **18**, 570

—, depolarizing and ganglion-blocking actions of, in rat, **24**, 89

—, effect on acetylcholine release and transmission in ganglionic and neuromuscular junctions, **22**, 427

—, effect on action of calcium-lack and tubocurarine on response of phrenic nerve-diaphragm and tibialis anterior preparations to electrical stimulation, **19**, 211

—, effect on action of N-p-cyclohexylbenzyltropinium derivatives on response of nictitating membrane to nerve stimulation, **21**, 18

—, effect on curarized endplate potentials, relation to anticurare action, **23**, 575

—, effect on ganglionic transmission, **17**, 411; **23**, 226, 258

—, effect on ganglionic and nervous transmission, selectivity of, **23**, 273

—, effect on ganglion-stimulating action of acetylcholine and choline, **23**, 258

—, effect on ganglion-stimulating action of acetylcholine, carbachol and potassium ions, **23**, 262

—, effect on motor-nerve endings, **24**, 232

—, effect on neuromuscular blocking action of benzoquinonium and tubocurarine, **14**, 463

Tetraethylammonium (cont.)

- , effect on neuromuscular blocking action of triethylcholine, 19, 209
- , effect on response of auricular beat to aconitine and nicotine, 15, 452
- , effect on response of blood pressure to dimethylphenylpiperazinium, 13, 508
- , effect on response of blood pressure to oxytocin and vasopressin, in chicken, 16, 133
- , effect on response of blood pressure and heart beat to phenoxybenzamine, in guanethidine- and reserpine-treated and untreated dogs, 16, 9
- , effect on response of blood pressure and neuromuscular transmission to murexine, 13, 105
- , effect on response of molluscan smooth muscle to acetylcholine, 14, 405
- , effect on response of nictitating membrane to *N*-*p*-cyclohexylbenzyltropinium derivatives, 21, 16
- , effect on response of phrenic nerve-diaphragm preparation to electrical stimulation, 22, 58
- , effect on response of phrenic nerve-diaphragm preparation to electrical stimulation, action of stimulation frequency, 20, 11
- , effect on response of phrenic nerve-diaphragm and tibialis anterior preparations to acetylcholine and electrical stimulation, 19, 209
- , —, and action of choline on, 19, 212, 213
- , effect on response of popliteal nerve-gastrocnemius preparation to electrical stimulation, and action of benzoquinonium and tubocurarine, 24, 225
- , effect on response of respiration to *N*-*p*-cyclohexylbenzyltropinium derivatives, 21, 22
- , ganglion-blocking action of, 13, 506; 15, 147; 23, 243
- , —, effect of histamine on, 14, 181
- , —, effect of repetitive preganglionic stimulation on, 24, 76
- , induction of muscular weakness by, in rabbit, 19, 211
- , —, effect of choline on, in rabbit, 19, 212
- , response of biventer cervicis preparation to, 22, 62
- , response of blood pressure and respiration to, 23, 249
- , response of denervated striated muscle to, and effect of tubocurarine on, 24, 234
- , response of innervated and partially and completely denervated striated muscle to, 17, 63
- , response of *Tapes* heart to, 25, 486
- , toxicity of, effect of choline on, 19, 212
- 1,2,3,4-Tetrafluorobenzene, anaesthetic and analgesic actions and toxicity of, and effect of nitrous oxide on, 24, 521
- Tetrahydrofurfuryl alcohol**, effect on capillary permeability, action of hexadimethrine, 22, 100
- 1-(ω -Tetrahydrofurfurylalkyl)norpethidines, analgesic action and toxicity of, 15, 252
- 1,2,3,4-Tetrahydronaphthylamine, central action of, in chick, 25, 705
- β -Tetrahydronaphthylamine, effect on behaviour and on amines and their acid metabolites in brain, 24, 763
- 5,6,7,8-Tetrahydro-4,6,6,8-pentamethyl-5,7-dioxocoumarin, anticoagulant action of, 20, 29
- 5,6,7,8-Tetrahydro-3,6,6,8-tetramethyl-5,7-dioxocoumarin, anticoagulant action of, 20, 29
- 5,6,7,8-Tetrahydro-4,6,6,8-tetramethyl-5,7-dioxocoumarin, anticoagulant action of, 20, 29
- Tetramethylammonium**, depolarizing action at autonomic ganglia, and effect of hexamethonium on, 18, 575
- , depolarizing and ganglion-blocking actions of, in rat, 24, 89

Tetramethylammonium (cont.)

- , effect on release of catechol amines from adrenals by histamine, 25, 737
- , effect on response of blood pressure to angiotensin, 22, 216
- , effect on response of blood pressure to physostigmine, 23, 547
- , effect on response of nictitating membrane to chloral hydrate, 19, 114
- , effect on response of sciatic nerve-gastrocnemius preparation to electrical stimulation, 14, 508
- , ganglion potentials and block produced by, and effect of atropine and hexamethonium on, 23, 80
- , ganglion-blocking action of, effect of histamine on, 14, 181
- , response of adrenals and sympathetic ganglia to, effect of SK&F 90,238 on, 23, 496
- , response of blood pressure to, effect of *N*-*p*-cyclohexylbenzyltropinium derivatives on, 21, 19
- , —, effect of guanethidine and hexamethonium on, 17, 445
- , —, effect of triethylcholine on, 17, 191
- , response of innervated and partially and completely denervated striated muscle to, 17, 62
- , response of molluscan smooth muscle to, 14, 404
- , response of respiration to, effect of *N*-*p*-cyclohexylbenzyltropinium derivatives on, 21, 22
- , response of small intestine to, effect of anoxia, cooling and hexamethonium on, 20, 150
- , —, effect of hyoscine on, and action of phenoxybenzamine, 20, 150
- , —, effect of morphine and phenoxybenzamine on, and action of anoxia, 20, 150
- , response of sterno-trachealis preparation to, 18, 614
- , response of superior cervical ganglion to, effect of chloral hydrate and physostigmine (*eserine*) on, 19, 114
- , response of *Tapes* heart to, 25, 486
- 2,3,4,4-Tetramethylbicyclo[3,2,1]-2- and -3-azaoctane, ganglion-blocking action, synthesis and toxicity of, 15, 209
- , mydriatic action of, 15, 213
- Tetramethylenebis**(2-hydroxyethyl)dimethylammonium), neuromuscular blocking action of, 25, 392
- NN'*-Tetramethylenebis(4-hydroxyiminomethylpyridinium), as antidote in organophosphate poisoning, 14, 192
- , effect on cholinesterase and reactivating action on organophosphate-inactivated cholinesterase, 14, 188
- , reactivating action on organophosphate-inactivated cholinesterase, pharmacological actions, synthesis and toxicity of, 14, 195
- , with atropine, as antidote in organophosphate poisoning, 14, 186
- NN'*-Tetramethylenebis(3-mandeloyloxytropanium), antiacetylcholine, ganglion-blocking and neuromuscular blocking actions of, 18, 278
- NN'*-Tetramethylenebis(3-phenylacetoxytropanium), antiacetylcholine, ganglion-blocking and neuromuscular blocking actions of, 18, 277
- Tetramethylene-1-(4-hydroxyiminomethylpyridinium)-4-pyridinium**, as antidote in organophosphate poisoning, 14, 192
- , reactivating action on organophosphate-inactivated cholinesterase, pharmacological actions, synthesis and toxicity of, 14, 195
- NNN'N'*-Tetramethylphosphorodiamidic fluoride. *See* Dimefox

- 2,2,6,6-Tetramethylpiperidine, and its derivatives, ganglion-blocking action of, 13, 502
- 2,2,6,6-Tetramethyl-1-propylpiperidine, ganglion-blocking action of, 13, 502
- Tetrathionate**, *in-vitro* trypanocidal action on normal and stilbamidine-resistant trypanosomes, 14, 445
- 1,1-Tetratriacontamethylenebisisoquinolinium, *in-vitro* effect on *Hymenolepis nana*, 24, 240
- Thalidomide**, distribution in intestinal contents and tissues, 25, 345
- , effect on ganglionic transmission, 23, 244
- , hydrolysis in aqueous solution, and effect of pH on, 25, 324
- , hydrolysis products of, stability in aqueous solution, 25, 332
- , and its hydrolysis products, chromatography of, 25, 329
- , —, effect on glutamate decarboxylase, glutamate dehydrogenase and glutamine synthetase, 25, 352
- , —, embryotoxic and teratogenic actions of, in rabbit, 25, 356
- , —, excretion and metabolism of, in various species, 25, 338
- , —, sedative action of, 25, 358
- , pharmacological actions and toxicity of, 15, 111
- , teratogenic action of, in rabbit, 21, 343
- (+)- and (–)-**Thalidomide**, effect on glutamate decarboxylase, 25, 355
- , hydrolysis in aqueous solution, 25, 329
- Theileria annulata**, chemotherapeutic screening of compounds against, in tissue culture, 13, 458
- Thenaldine**, anti-inflammatory action of, 18, 352
- , effect on induction of oedema by compound 48/80, dextran, eggwhite, histamine and 5-hydroxytryptamine, in rat hindpaw, 13, 66
- , effect on response of small intestine to acetylcholine, histamine and synthetic bradykinin-like polypeptides, 15, 546
- Theophylline**, effect on action of adrenaline on response of potassium-depressed phrenic nerve-diaphragm preparation to electrical stimulation, 23, 193
- , effect on action potentials and tension in mammalian vein, 25, 599
- , effect on response of potassium-depressed phrenic nerve diaphragm-preparation to electrical stimulation, and action of phloridzin and pronethalol, 23, 188, 192
- , effect on spontaneous activity of venous preparations, 24, 747
- , response of venous preparations to, 24, 747
- Theophyllines**, bronchodilator and coronary dilator actions of, 17, 197
- Thermal conductivity**, of skin, effect of adrenaline and isoprenaline-noradrenaline mixtures on, in man, 22, 168
- Thermodynamic activity**, of primary alcohols, calculation of, 15, 187
- 1,3,4-Thiadiazole, derivatives of, chemical and physical properties, pharmacological actions and toxicity of, 13, 357
- Thiamine (aneurine)**:
- , role at neuro-effector cell junction, 20, 190
- Thiamine-deficient rat tissues**, pharmacological responses of, 20, 190
- β -Thiazol-2-ylacryloylcholine, neuromuscular blocking and other pharmacological actions of, 13, 382
- β -Thiazol-2-ylpropionylcholine, neuromuscular blocking and other pharmacological actions of, 13, 382
- 6-Thiocaffeine**, bronchodilator, coronary dilator and other pharmacological actions and toxicities of, 17, 201
- N*-(Thiocarbamoyl)glycine. See Thiohydantoic acid
- Thiocit**, as antidote in mustard-gas poisoning, in rat, 13, 395
- Thiodiglycol**, effect on response of uterus to bradykinin and oxytocin, 25, 422
- Thioethane**. See Ethanethiol
- Thioglycerol**, effect on response of blood vessels to lypressin (*lysine vasopressin*), 25, 427
- , effect on response of potassium-depolarized uterus to oxytocin, 25, 424
- , effect on response of uterus to bradykinin and oxytocin, 25, 421
- , effect on response of uterus to deamino-oxytocin, lypressin (*lysine vasopressin*) and oxytocin, 25, 427
- , *in-vitro* inactivation of lypressin (*lysine vasopressin*) by, 25, 427
- , *in-vitro* inactivation of oxytocin by, 25, 421
- Thioglycollic acid**, effect on response of blood vessels to lypressin (*lysine vasopressin*), 25, 427
- , effect on response of mammary strips to acetylcholine and oxytocin, 25, 425
- , effect on response of small intestine to histamine and potassium ions, 25, 406
- , effect on response of small intestine and uterus to bradykinin, mechanism of, 25, 405
- , effect on response of uterus to acetylcholine, 25, 406
- , effect on response of uterus to acetylcholine, bradykinin and oxytocin, 25, 419
- , effect on response of uterus to angiotensin and oxytocin, 25, 425
- , in plasma after intravenous injection, 25, 425
- , *in-vitro* inactivation of lypressin (*lysine vasopressin*) by, 25, 427
- , *in-vitro* inactivation of oxytocin by, and effect of temperature on, 25, 420
- , response of small intestine and uterus to, 25, 406
- 2-Thiohistidine**, inhibition of histidine decarboxylase by, 15, 556
- Thiohydantoic acid**, antithyroid action of, 13, 351
- 2-Thiohydantoin**, and its derivatives, antithyroid action and toxicity of, 13, 350
- 2-Thioimidazole**, inhibition of histidine decarboxylase by, 15, 556
- Thiols**, antitubercular action and toxicity of, 15, 485
- , effect on actions of bradykinin, 25, 405
- , effect on actions of disulphide polypeptides, 25, 418
- , effect on trypanocidal action of various substances, 14, 436
- Thiol esters**, antitubercular action and toxicity of, 15, 485
- Thiolacetic acid**, effect on response of uterus to bradykinin and oxytocin, 25, 422
- Thiomalic acid**, effect on response of uterus to bradykinin and oxytocin, 25, 422
- Thionine**, effect on oxidation-reduction potentials of normal and stilbamidine-resistant trypanosome suspensions, 14, 449
- , oxidation-reduction potential and *in-vitro* trypanocidal action on normal and stilbamidine-resistant trypanosomes of, 14, 447
- Thiopentone**, anaesthetic action of, effect on blood-lipid and -sugar, 15, 282
- , anaesthetic action, plasma concentration, oil/water partition coefficient and protein binding of, 14, 261
- , antitetanus action of, effect of acepromazine and chlorpromazine on, 16, 300
- , antitetanus action in experimental local tetanus, 13, 332, 335
- , effect on analgesic action of morphine and pethidine, in mouse, 24, 172

Thiopentone (*cont.*)

- , effect on hypnotic action and metabolism of pentobarbitone, and action of ethionine and proadifen (*SKF 525A*), in rat, **18, 33**
- , hyperalgesic action of, in mouse, **24, 170**
- , hypnotic action of, effect of 2-amino-5-phenyl- and -thien-2'-yl-1,3,4-thiadiazole and meprobamate on, **13, 360**
- , *in-vitro* metabolism of pentobarbitone by liver slices from rat pretreated with, **18, 37**
- , prevention of audiogenic seizures by, and effect of bemegride and leptazol on, in mouse, **14, 415**
- , response of heart beat to, and effect of caprylate, hydrogen peroxide, oleate, ouabain, paullinia tannin and tannic acid on, **21, 79**
- , *in-vitro* trypanocidal action on normal and stilbamidine-resistant trypanosomes, **14, 445**
- Thiopropazate**, antiemetic action of, **21, 436**
- , effect in experimental local tetanus, **13, 336**
- , hypotensive, sedative and tranquillizing actions of, **22, 154**
- Thiopropazine**, antiemetic action of, **21, 436**
- , effect on behaviour and on amines and their acid metabolites in brain, **24, 766**
- , hypotensive, sedative and tranquillizing actions of, **22, 154**
- , pharmacological actions and toxicity of, comparison with chlorpromazine, **22, 301**
- Thioridazine**, effect on behaviour and on amines and their acid metabolites in brain, **24, 766**
- , effect on emetic action of apomorphine, in dog, **21, 439**
- , effect on enzymic destruction of bradykinin by brain extracts, **22, 333**
- , effect on head-twitch response to 5-hydroxytryptophan and on pinna reflex, in mouse, **20, 113**
- , effect on hydrolysis of hippuryl-L-arginine by carboxypeptidase B, **22, 335**
- , effect on oestrous cycle, in albino mouse, **22, 162**
- , hyperglycaemic action of, relation to hypothermic action, in rat, **23, 97**
- Thiosemicarbazide**, effect in experimental vaccinia infections, **15, 107**
- Thiosulphate**, as antidote for hydrocyanic acid, **23, 462**
- , effect on antidotal action of cobalt compounds on hydrocyanic acid, **23, 462, 464, 467**
- Thiotepa**, antifertility action of, in rat, **14, 151**
- , effect on renal function, **21, 586**
- 6-Thiotheobromines**, bronchodilator, coronary dilator and diuretic actions and toxicities of, **17, 201**
- 2-Thiotheophylline**, choline salt, bronchodilator and coronary dilator actions of, **17, 201**
- 6-Thiotheophyllines**, bronchodilator, coronary dilator and other pharmacological actions and toxicities of, **17, 197**
- Thioxanthines**, pharmacological actions and toxicity of, **16, 59**
- 6-Thioxanthines**, bronchodilator, coronary dilator and other pharmacological actions and toxicities of, **17, 196**
- Thrombolyisin**, kinin-forming action of, effect of glass on, **22, 94**
- Thurfyl nicotinate**, oral, effect on cutaneous response to topical thurfyl nicotinate and ultraviolet light, in guinea-pig, **21, 108**
- , topical, cutaneous response to, and effect of anti-rheumatic agents and pyridine derivatives on, in guinea-pig, **21, 104**
- Thymol**, *in-vitro* cesticidal action of, **15, 437**
- , effect on *Ascaris lumbricoides* body movements, **13, 199**

Thymoleptic agents. See Antidepressants

- Thymoxamine** [*4-(2-dimethylaminoethyl)-5-isopropyl-2-methylphenyl acetate*; *Opilon*]:
- , effect on response of auricular beat to butyrylcholine, noradrenaline and tyramine, **17, 233**
- Thymus**, localization of bemegride in, **14, 36**
- , weight of, effect of iproniazid on, **14, 485**
- Thymus extracts**, human, anti-bradykinin, -histamine and -5-hydroxytryptamine actions of, **21, 419**
- Thyroid**, effect of hydrocortisone, prednisolone and prednisone on, in rat, **13, 99**
- , effect of reserpine on, in chick, **17, 271**
- , localization of bretylium in, **15, 267**
- , localization of *o*-bromobenzyltrimethylammonium and [2-(4-benzoyl-2,6-dimethylphenoxy)ethyl]trimethylammonium in, **17, 93**
- , localization of chymotrypsin in, **15, 308**
- Thyroid extracts**, human, anti-bradykinin, -histamine and -5-hydroxytryptamine actions of, **21, 419**
- Thyroidectomy**, effect on urinary excretion of sympathin, in rat, **13, 39**
- Thyroxine**, effect on auricular beat, **25, 652, 653**
- , effect on noradrenaline in heart, in rabbit, **25, 651**
- , effect on response of auricular beat to noradrenaline, **25, 653**
- L-Thyroxine**, effect on action of adrenaline on response of potassium-depressed phrenic nerve-diaphragm preparation to electrical stimulation, **23, 192**
- , effect on body weight and urinary excretion of histamine, in aminoguanidine-treated rat, **17, 479**
- , effect on hyperthermic action and toxicity of amphetamine, in grouped mice, **19, 253**
- , effect on inflammation, in mouse foot, **18, 351**
- , effect on metabolic rate and weight of adrenals, in mouse, **17, 141**
- , effect on toxicity of histamine and 5-hydroxytryptamine, in mouse, **17, 138**
- , effect on urinary excretion of sympathin, in normal, thyroidectomized and sham-thyroidectomized rats, **13, 39**
- Tibialis anterior preparation**, response to acetylcholine and indirect stimulation, effect of acetyltriethylcholine on, **19, 213**
- , —, effect of neostigmine and triethylcholine on, and action of choline, **19, 208**
- , —, effect of triaethylammonium and triethylcholine on, **19, 208**
- , —, —, and action of choline, **19, 212**
- , response to acetylcholine and potassium ions, effect of proadifen (*2-diethylaminoethyl 3,3-diphenylpropylacetate*) on, **18, 565**
- , response to acetyltriethylcholine, **19, 213**
- , response to direct and indirect stimulation, effect of adrenaline and isoprenaline on, and action of dichloroisoprenaline, phenoxybenzamine, phenolamine, pronethalol (*2-isopropylamino-1-naphth-2'-ylethanol*) and tetanus, **19, 464**
- , —, effect of tetanus and temperature on, **19, 464**
- , response to indirect stimulation, effect of tubocurarine on, and action of adrenaline, isoprenaline and tetanus before and after dichloroisoprenaline, phenoxybenzamine, phenolamine and pronethalol (*2-isopropylamino-1-naphth-2'-ylethanol*), **19, 478**
- , response to neuromuscular blocking agents applied topically to cervical spinal cord, **25, 411**
- , response to polymethylenbis(2-hydroxyethyltrimethylammonium), **25, 394**
- See also Peroneal nerve-tibialis anterior preparation and Sciatic nerve-tibialis anterior preparation
- Tidal volume.** See Respiration

- Tiglidine**, effect on Tremorine-induced tremor, **14**, 561
- Tiglyltropine**, effect on Tremorine-induced tremor, **14**, 561
- Tissue extracts**, human, anti-bradykinin, -histamine and -5-hydroxytryptamine actions of, **21**, 419
- Toad**, large intestine of, blood supply and innervation of, **23**, 151
- Tobacco smoke**, nicotine in, **25**, 516
- , response of blood pressure to, in anaesthetized and spinal cats, **25**, 515
- Toe-pinch method**, multiple, for testing analgesics, **17**, 28
- Tolazoline**, anticholinesterase action of, **15**, 528; **22**, 532
- , effect on action of pronethalol on response of blood pressure to acetylcholine, in atropinized dog, **24**, 450
- , effect on hydrolysis of hippuryl-L-arginine by carboxypeptidase B, **22**, 335
- , effect on potentials in vas deferens before and during hypogastric and intramural nerve stimulation, **23**, 607
- , effect on response of aorta to nicotine and noradrenaline, **14**, 240
- , effect on response of blood pressure to acetylcholine, and action of pronethalol, in atropinized dog, **24**, 451
- , effect on response of blood pressure to adrenaline and noradrenaline, in cat, **21**, 385
- , effect on response of blood pressure to peptone, **13**, 180
- , effect on response of blood pressure to *N*-[2-(2,6-xylyloxy)ethyl]guanidine, in spinal cat, **25**, 537
- , effect on response of blood pressure, heart beat and nictitating membrane to bretylium and guanethidine, **20**, 364
- , effect on response of cardiac muscle to electrical stimulation, and action of reserpine, **22**, 68
- , effect on response of denervated striated muscle to sympathomimetic amines, **24**, 104
- , effect on response of hypogastric nerve–vas deferens preparation to electrical stimulation, **20**, 303; **24**, 681
- , effect on response of large intestine to acetylcholine, nerve stimulation and noradrenaline, **23**, 158, 160
- , effect on response of periarterial nerve–ileum preparation to electrical stimulation, **22**, 527
- , effect on response of smooth-muscle preparations to acetylcholine and cholinergic nerve stimulation, **20**, 418
- , effect on response of vas deferens to acetylcholine, noradrenaline and sympathetic stimulation, **15**, 526
- , effect on toxicity of yohimbine, **21**, 57
- , response of blood flow to, in reserpinized dog, **22**, 68
- , response of blood pressure to, and effect of reserpine with and without dichloroisoprenaline or phenoxybenzamine on, **22**, 66
- , response of heart beat to, and effect of dichloroisoprenaline, phenoxybenzamine and reserpine on, **22**, 67
- , with and without *o*-*p*-s-butylphenoxypropionate, effect on formaldehyde-induced inflammation, in mouse, **16**, 165
- o*-Tolidine**, subcutaneous, effect on haemoglobin nitrite sensitivity reaction, **19**, 492
- Toluene-*p*-sulphonyl-L-arginine methyl ester**, effect on kinin formation by kallikreins, **20**, 258
- N*-Toluene-*p*-sulphonylethyleneimine**, effect on male fertility, in rat, **14**, 152
- p*-Toluic acid**, effect on trypanocidal action of butarsen, **14**, 434
- p*-Toluidine**, effect on trypanocidal action of butarsen, **14**, 434
- Toluidine blue**, effect on induction of kinin formation by glass, **22**, 94
- , effect on trypanocidal action of butarsen, **14**, 434
- , oxidation–reduction potential and *in-vitro* trypanocidal action on normal and stilbamidine-resistant trypanosomes of, **14**, 447
- 3-*O*-*p*-Toluoyl-*N*-*p*-cyclohexylbenzyltropinium**, pharmacological actions and toxicity of, **21**, 10
- Toluylene blue**, oxidation–reduction potential and *in-vitro* trypanocidal action on normal and stilbamidine-resistant trypanosomes of, **14**, 447
- 1-*o*-, -*m*- and -*p*-Tolylcarbamoylmethylpyridinium**, effect on influenza virus in tissue culture, properties and synthesis of, **13**, 424
- N*¹-*m*- and -*p*-Tolyldiguamide**, effect on influenza virus in tissue culture, **13**, 424
- N*-(1-*o*- and -*m*-Tolyethyl)guanidine**, adrenergic neurone-blocking action and synthesis of, **24**, 395
- , effect on cardiac noradrenaline, eyelid and monoamine oxidase, **24**, 408
- (+)-***N*-(1-*p*-Tolyethyl)guanidine**, adrenergic neurone-blocking action and synthesis of, **24**, 395
- , effect on cardiac noradrenaline, eyelid and monoamine oxidase, **24**, 408
- (-)-***N*-(1-*p*-Tolyethyl)guanidine**, adrenergic neurone-blocking action and synthesis of, **24**, 395
- , effect on cardiac noradrenaline, eyelid and monoamine oxidase, **24**, 408
- (±)-***N*-(1-*p*-Tolyethyl)guanidine**, adrenergic neurone-blocking action and synthesis of, **24**, 395
- , effect on cardiac noradrenaline, dopamine-β-oxidase, eyelid and monoamine oxidase, **24**, 408
- N*-*p*-Tolylmethylguanidine**. See ***N*-(*p*-Methylbenzyl)-guanidine**
- 3-*p*-Tolylthiopropane-1,2-dithiol**, effect on *Mycobacterium tuberculosis*, **15**, 485
- Tomatidine**, antihistaminic action of, **22**, 496
- Tomatine**, antihistaminic action and toxicity of, **22**, 488
- , bioassay of, **22**, 489
- , isolation from tomato plants and purification of, **22**, 488, 491
- Tomato plants**, normal and crown-gall-infected, extracts of, antihistaminic action of, **22**, 486
- , —, —, preparation of, **22**, 488
- Tonicity**, of intradermal injections, effect on behaviour, in guinea-pig, **21**, 157
- , of test solutions, effect on striated muscle, **17**, 61
- Tortion**, contralateral, induction by physostigmine, in rat, **24**, 132
- p*-Tosyl-L-arginine methyl ester**, hydrolysis by plasma and serum, induction by kaolin, effect of hexadimethrine on, and action of heparin, **22**, 95
- , —, induction by streptokinase, effect of hexadimethrine on, **22**, 95
- Toxicity tests**, sequential, application of Robbins–Monro process to, **22**, 392
- Toxin**, diphtheria. See **Diphtheria toxin**
- , tetanus. See **Tetanus toxin**
- α*-Toxin**, staphylococcal, effect on histamine in plasma, **25**, 776
- , —, effect on response of large and small intestine to acetylcholine, histamine and 5-hydroxytryptamine, and action of anti-*α*-toxin, **25**, 782
- , —, hypotensive action and toxicity of, **25**, 778
- , —, non-release of spasmogenic substances from small intestine by, **25**, 782
- , —, pharmacological actions of, **14**, 59

***α-Toxin*, staphylococcal (cont.)**

- , —, release of histamine from tissues by, and effect of anti-*α*-toxin on, **25**, 771
- , —, response of large and small intestine to, and effect of anti-*α*-toxin, atropine, heparin, 5-hydroxytryptamine, mepyramine, methysergide, morphine, phenoxybenzamine and venoms on, **25**, 781
- , —, response of uterus to, effect of atropine, methysergide and phenoxybenzamine on, **25**, 781
- , —, spasmogenic action of, relation to histamine-releasing action, **25**, 773

Trachea, catechol amines in, and effect of reserpine on, histochemical study, **25**, 307

- , chicken, anatomy, innervation and myology of, **18**, 612
- , intact, apparatus for measuring volume changes induced by transmural stimulation of, **22**, 127
- , —, as test preparation for bronchoconstrictor and bronchodilator substances, **19**, 286
- , release of acetylcholine from, during rest and transmural stimulation, **22**, 127
- , response to acetylcholine, barium ions and 5-hydroxytryptamine, and effect of adrenaline and atropine on, **19**, 288
- , response to acetylcholine, bradykinin and histamine, **19**, 195
- , response to acetylcholine and slow-reacting substance produced in anaphylaxis, and effect of acetylsalicylate on, **23**, 207
- , response to adrenaline and aminophylline, **19**, 291
- , response to atropine, **19**, 290
- , response to bradykinin and histamine, and effect of amidopyrine and phenylbutazone on, **19**, 193
- , response to bradykinin, histamine and 5-hydroxytryptamine, **23**, 207
- , response to histamine, and effect of adrenaline on, **19**, 289
- , response to transmural stimulation, effect of atropine, hexamethonium, mipafox and procaine on, **22**, 126

Tracheal chain preparation, response to acetylcholine, effect of prostaglandin E₁ and F_{2a} on, **24**, 471

- , response to acetylcholine, histamine, neostigmine, nicotine and physostigmine, effect of cooling and procaine on, **21**, 142
- , response to histamine, effect of aminoguanidine and serpentine on, **16**, 150
- , —, effect of flavanoids on, **13**, 15
- , response to oxolamine and papaverine, **16**, 214
- , response to pilocarpine, effect of adrenaline and isoprenaline on, and action of bretylium, **16**, 332

Tracheal muscle preparations, release of acetylcholine from, during rest and transmural stimulation, **22**, 133

- , response to acetylcholine, and effect of atropine, 2-bromolysergic acid diethylamide and pH on, **13**, 496
- , response to acetylcholine, barium ions, dihydroergotamine and histamine, effect of prostaglandins on, **22**, 511
- , response to acetylcholine, histamine, neostigmine, nicotine and physostigmine, effect of dyflos on, **21**, 139
- , —, effect of low calcium and high magnesium concentrations on, **21**, 143
- , response to acetylcholine, histamine, neostigmine and physostigmine, effect of mipafox on, **21**, 138
- , response to acetylcholine, neostigmine, nicotine and physostigmine, effect of hemicholinium on, **21**, 143

Tracheal muscle preparations (cont.)

- , response to adrenaline, atropine and histamine, **13**, 495
- , response to bronchoconstrictor aerosols, effect of 6-thioxanthines and xanthines on, **17**, 197
- , response to dyflos and mipafox, **21**, 138
- , response to hemicholinium, **21**, 143
- , response to 5-hydroxytryptamine and tryptamine, and effect of 2-bromolysergic acid diethylamide and pH on, **13**, 496
- , response to neostigmine, nicotine and physostigmine, effect of ganglion-blocking agents on, **21**, 140
- , response to nicotine and physostigmine, mode of action of, **21**, 137
- , response to prostaglandins, **22**, 511

Tracheobronchial preparation, guinea-pig, response to acetylcholine and slow-reacting substance produced in anaphylaxis, **23**, 207

- Tranquillizers**, effect on apomorphine-induced emesis and pecking, in pigeon, **16**, 141
- , effect on apomorphine-induced pecking, in pigeon, **17**, 8
- , effect on arousal system of brain, blood pressure and electrocorticogram, and effect of amphetamine, atropine and physostigmine on, in cat, **14**, 340
- , effect on autonomic functions and reserpine antagonism, **23**, 330
- , effect on central and lethal actions of compound 48/80, in mouse, **14**, 244
- , effect on defecation and exploratory activity, in rat, **25**, 432
- , effect on enzymic destruction of bradykinin by brain extracts, **22**, 333
- , effect on head-twitch response to 5-hydroxytryptophan, in mouse, **20**, 113
- , effect on hydrolysis of hippuryl-L-arginine by carboxypeptidase B, **22**, 335
- , effect on hypothermia and tremor induced by Tremorine, **25**, 447, 450
- , effect on stress-induced block of milk ejection, in lactating guinea-pig, **17**, 306
- , effect on toxicity of yohimbine, **21**, 56

See also Central nervous depressants

Tranquillizing action, of (+)- and (–)-hyoscyamine and -hyoscyne, in mouse, **24**, 141

- , of *Paspalum scrobiculatum* extracts, **18**, 11
- , —, in man, **18**, 15
- , of phenothiazine derivatives, **22**, 154

See also Central nervous depressant action

Transducer, capacitance, **21**, 226**Transport numbers**, of adrenaline, 5-hydroxytryptamine and noradrenaline, **20**, 492

- Tranylcypromine**, effect on action of acetylcholine, demecarium, dimethylurethane, physostigmine and pyrogallol on response of hypogastric nerve–vas deferens preparation to electrical stimulation, **24**, 643
- , effect on action of *N*-[2-(2,6-xylyloxy)ethyl]-guanidine on response of Finkleman ileum preparation to sympathetic stimulation, **25**, 539
- , effect on adenine nucleotides, inorganic phosphate and phosphocreatine in brain, **20**, 462
- , effect on adrenergic neurone-blocking action of bretylium, guanethidine and xylocholine, **18**, 421
- , effect on defecation and exploratory activity, in rat, **25**, 432
- , effect on head-twitch response to 5-hydroxytryptophan, in mouse, **20**, 110
- , effect on 5-hydroxytryptamine in foetus, placenta and spleen, in mouse, **22**, 388

Tranlycypromine (*cont.*)

- , effect on hypothermia and tremor induced by Tremorine, **25**, 447, 450
- , effect on inactivation of phenelzine by liver homogenates, **24**, 247
- , effect on monoamine oxidase in brain and liver, in rat, **25**, 541
- , effect on response of blood pressure to imipramine and tyramine, in rabbit, **25**, 164
- , effect on response of blood pressure to phenethylamine and tryptamine, in chick, **25**, 719
- , effect on response of body temperature to amitriline, chlorpromazine, dexamphetamine, imipramine, pethidine, trifluoperazine and trimipramine, in rabbit, **25**, 158
- , effect on response of fundal-strip preparation to tryptamine, **17**, 313
- , effect on response of hypogastric nerve-vas deferens preparation to electrical stimulation, and action of atropine, guanethidine, noradrenaline, phenoxybenzamine, pyrogallol and reserpine, **24**, 643, 644
- , effect on response of nictitating membrane and small intestine to sympathetic stimulation, **18**, 430
- , effect on response of uterus to acetylcholine, **25**, 218
- , effect on response of uterus to adrenaline, **25**, 221
- , effect on spontaneous uterine activity, and action of atropine, bromolysergic acid diethylamide, ergotamine, phenolamine and pronethalol, **25**, 217
- , effect on toxicity of yohimbine, **21**, 57
- , effect on uptake of noradrenaline by heart at low perfusion concentration, **25**, 34
- , inhibition of monoamine oxidase by, **17**, 312
- , toxicity of, in rabbit, **25**, 164
- Trasentin. *See* Adiphenine
- Trasentin 6H. *See* 2-Diethylaminoethyl α -cyclohexyl- α -phenylacetate
- Trasolyl, effect on kinin formation by kallikreins, **20**, 258
- Treburon. *See* Mepesulphate
- Trehalose, effect on action of polysaccharides on capillary permeability, **25**, 605
- Tremor**, drug-induced, in mouse, **14**, 350
 - , —, effect of intraventricular antiparkinsonian agents, calcium ions, chloralose, magnesium ions, sympathomimetic amines and urethane on, in cat, **15**, 578
 - , improved recording technique for, in mouse, **14**, 350
 - , induction of. *See also* Central nervous stimulant action
- Tremorine. *See* 1,4-Dipyrrolidin-1'-ylbut-2-yne
- Tretamine**, antifertility action of, in rat, **14**, 151
 - , effect on renal function, **21**, 586
 - , effect on trypanocidal action of melarsen oxide, **14**, 436
- 1,3,5-Triacetoxybenzene, anthelmintic action of, **24**, 714
- 1,3,5-Triacetoxy-2,4-diacetylbenzene, anthelmintic action of, **24**, 714
- 1,3,5-Triacetoxy-2,4-dipropionylbenzene, anthelmintic action and synthesis of, **24**, 714
- Triacetylphloroglucinol, anthelmintic action of, **24**, 714
- 1,2,3-Tri(acetylthio)propane, antitubercular action and toxicity of, **15**, 485
- Trialkyl(2-acetoxyethyl)ammonium compounds, affinity and efficacy of, relation to chemical structure, **21**, 509
- Trialkyl(2-benziloyloxyethyl)ammonium compounds, affinity and efficacy of, relation to chemical structure, **21**, 509
- Trialkyl(butylmethyl)ammonium compounds, affinity and efficacy of, relation to chemical structure, **21**, 509

- Trialkyl(2-diphenylacetoxyethyl)ammonium compounds, affinity and efficacy of, relation to chemical structure, **21**, 509
- Trialkyl(3,3-diphenylbutylmethyl)ammonium compounds, affinity and efficacy of, relation to chemical structure, **21**, 509
- Trialkyl[2-(2,2-diphenylethoxy)ethyl]ammonium compounds, affinity and efficacy of, relation to chemical structure, **21**, 509
- Trialkyl(3-diphenylmethoxypropyl)ammonium compounds, affinity and efficacy of, relation to chemical structure, **21**, 509
- Trialkyl(2-ethoxyethyl)ammonium compounds, affinity and efficacy of, relation to chemical structure, **21**, 509
- Trialkyl(3-methoxypropyl)ammonium compounds, affinity and efficacy of, relation to chemical structure, **21**, 509
- Triallyl(3,4-xylylcarbamoylmethyl)ammonium, antiviral action in tissue culture, properties and synthesis of, **13**, 424
- Triamcinolone**, effect on adrenal and body weights, in rat, **15**, 537
 - , effect on arthritis induced by mycobacterial adjuvant, in rat, **21**, 127
 - , effect on body weight and acetylcholine and 5-hydroxytryptamine in brain, in rat, **19**, 229
 - , effect on histamine and 5-hydroxytryptamine in tissues, in rat, **15**, 532
 - , effect on histidine decarboxylase in liver and pyloric stomach, **16**, 362
- Triazine**, derivatives of, metabolism of, in experimental virus infections, in mouse, **24**, 274
- Tri(aziridin-1-yl)phosphine oxide, effect on urine flow, in mouse and rat, **25**, 224
 - , toxicity of, in mouse and rat, **25**, 224
 - , urinary excretion of ethyleneimine after administration of, in mouse and rat, **25**, 223
- Tribromoethyl alcohol, effect on action of morphine on gastrointestinal propulsion, in rat, **14**, 32
 - , effect on gastrointestinal propulsion, **14**, 32
- 3,5,6-Tribromo-4-methylcatechol, anti-inflammatory action and toxicity of, **22**, 221
- 3,5,6-Tribromo-2-methyl-1,4-hydroquinone, anti-inflammatory action and toxicity of, **22**, 221
- 2,4,6-Tribromo-3-methylphenol, anti-inflammatory action and toxicity of, **22**, 221
- 2,4,6-Tribromo-5-methylresorcinol, anti-inflammatory action and toxicity of, **22**, 221
- 2,4,6-Tribromophloroglucinol, anti-inflammatory action and toxicity of, **22**, 221
- 2,4,6-Tribromoresorcinol, anti-inflammatory action and toxicity of, **22**, 221
- Tributyl phosphorotrithioate, clinical responses and neurological disturbances induced by, in hen, **23**, 295
- Tributyl phosphorotrithiolate, clinical responses and neurological disturbances induced by, in hen, **23**, 295
- Tributylphloroglucinol, anthelmintic action and synthesis of, **24**, 714
- ω ,3,4-Trichloroacetanilide, properties and synthesis of, **13**, 425
- 3-Trichloroacetylthiopropylene sulphide, antitubercular action and toxicity of, **15**, 485
- Trichloroethyl alcohol**, effect on acetylcholine release and transmission in ganglionic and neuromuscular junctions, **22**, 415
 - , effect on neuromuscular blocking action of tubocurarine, **19**, 116
 - , effect on response of small intestine to acetylcholine, **19**, 117

- Trichloroethyl alcohol** (*cont.*)
 —, effect on response of striated muscle to acetylcholine and potassium ions, 19, 118
 —, effect on response of superior cervical ganglion to acetylcholine, 19, 113
 —, effect on synaptic transmission, 19, 113
 —, ganglion-blocking action of, 22, 424
- Trichloroethylene**, effect on response of small intestine to acetylcholine, histamine, potassium ions and transmural stimulation, 25, 104
 —, response of small intestine to, and effect of cocaine, hexamethonium, lachesine and mepyramine on, 22, 358
 —, with and without nitrous oxide, anaesthetic and analgesic actions of, in mouse, 22, 596
- 2,4,6-Trichloro-5-methylresorcinol**, anti-inflammatory action and toxicity of, 22, 221
- Trichlorophenols**, dissociation constants, pharmacological actions and toxicity of, 13, 21
- Trichomonocidal action**, of dichloroacetamide derivatives and related compounds, 17, 286
- Trichophyton mentagrophytes**, sensitivity to alkoxydiguanydes, 15, 245
- Triclofos**, response of respiration to, in man, 24, 214
- Tri-*o*-cresyl phosphate**, and its cyclic phosphate metabolite, neurotoxicity of, in hen, 18, 465
 —, neurotoxicity of, in hen, 17, 21
- Tri-*o*-cresyl phosphate poisoning**, effect on histochemical cholinesterase activity in central nervous system, in chicken, 16, 224
- Tridecymethylenebis (trialkylammonium) compounds**, biochemical properties, pharmacological actions and molar conductances of, 23, 131
- Triethyl phosphate**, effect on nervous system, in hen, 15, 271
- Triethylcholine**, anticholinesterase action of, 19, 207
 —, anticholinesterase action of, 19, 210
 —, effect on acetylcholine output and response of phrenic nerve-diaphragm preparation to electrical stimulation, and action of choline, 24, 110
 —, effect on action of calcium-lack and tubocurarine on response of phrenic nerve-diaphragm and tibialis anterior preparations to electrical stimulation, 19, 211
 —, effect on biological synthesis of acetylcholine, 25, 228
 —, effect on dependence of neuromuscular blocking action of tubocurarine on nerve-stimulation frequency, 20, 12
 —, effect on muscle action potentials, 19, 205
 —, effect on neuromuscular blocking action of tetraethylammonium, 19, 209
 —, effect on neuromuscular transmission and other pharmacological actions and toxicity of, 17, 176
 —, effect on peristaltic reflex, 21, 208
 —, effect on response of phrenic nerve-diaphragm preparation to electrical stimulation, action of stimulation frequency, 20, 11
 —, effect on response of phrenic nerve-diaphragm and tibialis anterior preparations to acetylcholine and nerve stimulation, 19, 199, 209
 —, —, and action of choline, 19, 212, 213
 —, effect on response of tibialis anterior preparation to acetylcholine and nerve stimulation, and action of choline, 19, 208
 —, induction of muscular weakness by, in rabbit, 19, 211
 —, —, effect of choline on, in rabbit, 19, 212
 —, toxicity of, effect of choline on, 19, 212
- Triethylenephosphoramidate**. *See* Tri(aziridin-1-yl)phosphine oxide
- Triethylenethiophosphoramidate**. *See* Thiotepe
- Triethyl(*m*-ethylphenyl)ammonium**, effect on response of popliteal nerve-gastrocnemius preparation to electrical stimulation, 24, 232
- Triethyl(2-hydroxyethyl)ammonium**. *See* Triethylcholine
- Triethyl(*m*-hydroxyphenyl)ammonium**, effect on curarized endplate potentials, relation to anticholinergic action, 23, 575
 —, effect on motor-nerve endings, 24, 232
 —, effect on response of popliteal nerve-gastrocnemius preparation to electrical stimulation, and action of benzoquinonium and tubocurarine, 24, 225
 —, response of denervated striated muscle to, and effect of tubocurarine on, 24, 235
- Triethyl(*p*-hydroxyphenyl)ammonium**, effect on curarized endplate potentials, relation to anticholinergic action, 23, 575
 —, effect on motor-nerve endings, 24, 234
 —, effect on response of popliteal nerve-gastrocnemius preparation to electrical stimulation, and action of benzoquinonium and tubocurarine, 24, 225
- Triethyl(*m*-methoxyphenyl)ammonium**, effect on motor-nerve endings, 24, 234
 —, effect on response of popliteal nerve-gastrocnemius preparation to electrical stimulation, 24, 232
- Triethylmethylammonium**, effect on motor-nerve endings, 24, 234
 —, effect on response of popliteal nerve-gastrocnemius preparation to electrical stimulation, and action of benzoquinonium and tubocurarine, 24, 225
- Triethyl(*m*-nitrophenyl)ammonium**, effect on response of popliteal nerve-gastrocnemius preparation to electrical stimulation, 24, 232
- Tri-*p*-ethylphenyl phosphate**, neurotoxicity of, in hen, 17, 21
- Tri-*p*-ethylphenyl phosphate poisoning**, histological changes in nervous system in, in hen, 17, 23
- Triethylphenylammonium**, effect on curarized endplate potentials, relation to anticholinergic action, 23, 575
 —, effect on motor-nerve endings, 24, 232
 —, effect on response of popliteal nerve-gastrocnemius preparation to electrical stimulation, and action of benzoquinonium and tubocurarine, 24, 225
 —, response of denervated striated muscle to, and effect of tubocurarine on, 24, 235
- Triethyl(*m*-tolyl)ammonium**, effect on motor-nerve endings, 24, 234
 —, effect on response of popliteal nerve-gastrocnemius preparation to electrical stimulation, 24, 232
- Trifluoperazine**, antiemetic action of, 21, 436
 —, effect on behaviour and on amines and their acid metabolites in brain, 24, 766
 —, effect on dexamphetamine-induced agitation and tryptamine-induced convulsions, 22, 308
 —, effect on head-twitch response to 5-hydroxytryptophan and on pinna reflex, in mouse, 20, 113
 —, effect on hydrolysis of hippuryl-L-arginine by carboxypeptidase B, 22, 335
 —, effect on oestrous cycle, in albino mouse, 22, 162
 —, effect on uptake of 5-hydroxytryptamine by blood platelets, 16, 291
 —, hypotensive, sedative and tranquillizing actions of, 22, 154
 —, induction of catatonia by, 22, 308
 —, response of body temperature to, effect of monoamine-oxidase inhibitors on, in rabbit, 25, 161
 —, toxicity of, in rabbit, 25, 164
- 2,2,2-Trifluoroethyl vinyl ether**, response of small intestine to, and effect of cocaine, hexamethonium, lachesine and mepyramine on, 22, 358

- 7-Trifluoromethylisatin β -thiosemicarbazone, antiviral action, properties and synthesis of, **15**, 101
- N*-(*aaa*-Trifluoro-*m*-tolyl)anthranilic acid. *See* Flufenamic acid
- Trifluorpromazine. *See* Fluorpromazine
- Triglycerides**, in liver, effect of cold and corticotrophin on, and action of salicylate, in rat, **25**, 191
- , —, effect of salicylate on, in rat, **25**, 191
- Trihexiphenidyl. *See* Benzhexol
- 2,4,5-Trihydroxyphenylethylamine. *See* 6-Hydroxydopamine
- 9 α ,11 α ,15-Trihydroxyprost-13-enoic acid. *See* Prostaglandin F_{1 α} under Prostaglandins
- 2,4,6-Tri-iodo-5-methylresorcinol, anti-inflammatory action and toxicity of, **22**, 221
- L-Tri-iodothyronine. *See* Liothyronine
- Trimepazine**, antiadrenaline action of, and relation to antitetanus action, **25**, 566
- , antitetanus and other central and peripheral actions of, **17**, 507
- , effect in anaphylactic microshock, in guinea-pig, **21**, 414
- , effect in experimental local tetanus, **13**, 336
- , effect on induction of oedema by compound 48/80, dextran, eggwhite, histamine and 5-hydroxytryptamine, in rat hindpaw, **13**, 67
- , effect on response of blood pressure to adrenaline, in rabbit, **25**, 567
- 1,3,4-Trimercaptobutan-2-ol, effect on *Mycobacterium tuberculosis*, **15**, 485
- Trimethadione**, effect on apomorphine-induced emesis and pecking, in pigeon, **16**, 141
- Trimethobenzamide**, effect on apomorphine-induced emesis and pecking, in pigeon, **16**, 141
- cis*-2,4,5-Trimethoxy-1-propenylbenzene. *See* β -Asarone
- trans*-2,4,5-Trimethoxy-1-propenylbenzene. *See* Asarone
- 3,4,4-Trimethylbicyclo[3,2,1]-2-azaoctane, ganglion-blocking action, synthesis and toxicity of, **15**, 209
- 2,2,4-Trimethylbicyclo[3,2,1]-3-azaoctane, ganglion-blocking action, synthesis and toxicity of, **15**, 209
- 2,3,4-Trimethylbicyclo[3,2,1]-3-azaoctane, anticonvulsant and ganglion-blocking actions, synthesis and toxicity of, **15**, 209
- , effect on nicotine-induced convulsions, **15**, 210
- 1,1'-Trimethylenebis(4-formylpyridinium) dioxime, effect on phosphorylphosphatase, **17**, 276
- Trimethylenebis(2-hydroxyethyltrimethylammonium), neuromuscular blocking action of, **25**, 392
- 1,1'-Trimethylenebis(2-hydroxyiminomethylpyridinium), effect on cholinesterase, reactivating action on organophosphate-inactivated cholinesterase and toxicity of, **14**, 188
- , with atropine, as antidote in organophosphate poisoning, **14**, 186
- 1,1'-Trimethylenebis(3-hydroxyiminomethylpyridinium), reactivating action on organophosphate-inactivated cholinesterase and toxicity of, **14**, 188
- , with atropine, as antidote in organophosphate poisoning, **14**, 186
- 1,1'-Trimethylenebis(4-hydroxyiminomethylpyridinium), effect on cholinesterase, reactivating action on organophosphate-inactivated cholinesterase and toxicity of, **14**, 188
- , effect on response of small intestine to acetylcholine and echthiophate, **18**, 287
- , hydrolysis of adenosine triphosphate by, **14**, 199
- , intravenous and intraventricular, effect on actions of intraventricular ethyl pyrophosphate, in conscious dog, **18**, 24
- 1,1'-Trimethylenebis(4-hydroxyiminomethylpyridinium) (*cont.*)
- , intraventricular, pharmacological actions of, in conscious dog, **18**, 23
- , reactivating action on organophosphate-inactivated cholinesterase, pharmacological actions, synthesis and toxicity of, **14**, 195
- , with atropine, as antidote in organophosphate poisoning, **14**, 186
- , with and without atropine, as antidote in anticholinesterase poisoning, **14**, 192
- NN'*-Trimethylenebis(3-mandeloyloxytropanium), ethyl acetate complex of, antiacetylcholine, ganglion-blocking and neuromuscular blocking actions of, **18**, 278
- pp'*-Trimethylenedioxybis(trimethylanilinium), effect on *Schistosoma mansoni* and toxicity of, **13**, 240
- Trimethylene-1-(4-hydroxyiminomethylpyridinium)-3-(4-methylpyridinium), synthesis and toxicity of, **14**, 188
- , with atropine, as antidote in organophosphate poisoning, **14**, 186
- Trimethylene-1-(2-hydroxyiminomethylpyridinium)-3-isoquinolinium, reactivating action on organophosphate-inactivated cholinesterase and synthesis of, **14**, 188
- , with atropine, as antidote in organophosphate poisoning, **14**, 186
- Trimethylene-1-(3-hydroxyiminomethylpyridinium)-3-isoquinolinium, reactivating action on organophosphate-inactivated cholinesterase, synthesis and toxicity of, **14**, 188
- , with atropine, as antidote in organophosphate poisoning, **14**, 186
- Trimethylene-1-(4-hydroxyiminomethylpyridinium)-3-isoquinolinium, effect on cholinesterase, reactivating action on organophosphate-inactivated cholinesterase, synthesis and toxicity of, **14**, 188
- , with atropine, as antidote in organophosphate poisoning, **14**, 186
- Trimethylene-1-(4-hydroxyiminomethylpyridinium)-3-pyridinium, reactivating action on organophosphate-inactivated cholinesterase, synthesis and toxicity of, **14**, 188
- , reactivating action on organophosphate-inactivated cholinesterase, pharmacological actions, synthesis and toxicity of, **14**, 195
- , with atropine, as antidote in organophosphate poisoning, **14**, 186
- , with and without atropine, as antidote in anticholinesterase poisoning, **14**, 192
- Trimethylene-1-(4-hydroxyiminomethylpyridinium)-3-thiouronium, effect on cholinesterase, reactivating action on organophosphate-inactivated cholinesterase, synthesis and toxicity of, **14**, 188
- , with atropine, as antidote in organophosphate poisoning, **14**, 186
- Trimethylene-1-(4-hydroxyiminomethylpyridinium)-3-triethylammonium, effect on cholinesterase, reactivating action on organophosphate-inactivated cholinesterase, synthesis and toxicity of, **14**, 188
- , with atropine, as antidote in organophosphate poisoning, **14**, 186
- Trimethyl(6- and 7-methylcoumaran-3-yl)ammonium, adrenergic neurone-blocking action of, **23**, 497
- , synthesis of, **23**, 501
- Trimethylnonylammonium, effect on trypanocidal action of butarsen and physical properties of, **14**, 435
- Trimethyloctadecylammonium, effect on trypanocidal action of butarsen and physical and other properties of, **14**, 435

- Trimethyl(4-oxopentyl)ammonium, response of molluscan smooth muscle to, 14, 404
- Trimethylphenethylammonium, effect on junctional transmission, 18, 520
- Trimethylphenylammonium, effect on response of peripheral nerve-ileum preparation to electrical stimulation, and action of hyoscine, 20, 379
- 2,2,6-Trimethylpiperidine, and its 6-alkyl homologues, ganglion-blocking action of, 13, 502
- 2,4,5- and 2,4,6-Trimethylpiperidino- α -acetanilide, antiviral action in tissue culture, properties and synthesis of, 13, 424
- Trimethyl[2-(2- and 3-pyridyl)ethyl]ammonium, effect on cholinesterase activity and junctional transmission, 18, 510
- , properties and synthesis of, 18, 516
- Trimethyl(2-pyridylmethyl)ammonium, effect on cholinesterase activity and junctional activity, 18, 510
- , properties and synthesis of, 18, 516
- Trimethyl(3- and 4-pyridylmethyl)ammonium, effect on junctional transmission, 18, 510
- , properties and synthesis of, 18, 516
- 1,3,7-Trimethyl-6-thioxanthine, bronchodilator, coronary dilator and other pharmacological actions and toxicity of, 17, 201
- 1,3,8-Trimethyl-6-thioxanthine, choline salt, bronchodilator, coronary dilator and other pharmacological actions and toxicity of, 17, 197
- $\alpha\alpha\beta$ -Trimethyltryptamine. *See* 3-(2-Amino-1,1-dimethylpropyl)indole
- 2,N',N'-Trimethyltryptamine. *See* 3-(2-Dimethylaminoethyl)-2-methylindole
- Trimethyl(2-xylyloxyethyl)ammonium. *See* Xylocholine
- Trimipramine, effect on response of small intestine to bradykinin, 25, 50
- , response of body temperature to, effect of monoamine-oxidase inhibitors on, in rabbit, 25, 158
- , toxicity of, in rabbit, 25, 164
- Tripeleennamine, effect on *in-vitro* mast-cell damage by antigen, 15, 400
- , effect on response of sensitized denervated striated muscle to acetylcholine, histamine and antigenic protein, 25, 616
- , *in-vitro* mast-cell damage by, and effect of metabolic inhibitors, calcium-lack and high temperatures on, 15, 399
- Triphenylmethane dyes, trypanocidal action on normal and drug-resistant trypanosomes, in mouse, 14, 423
- Tripolidine, effect on apomorphine-induced emesis and pecking, in pigeon, 16, 141
- , effect on response of rectal caecum to histamine and substance P, 17, 150
- Tritium, estimation in blood, 16, 245
- Tritium-oxide space, of nephrectomized rat without splanchnic circulation, 16, 248
- Tropeines, bis-quaternary, antiacetylcholine, hypotensive and neuromuscular blocking actions of, 15, 71
- , pharmacological actions and toxicity of, 21, 10
- Tropine, derivatives of, antiacetylcholine, antitremor, local anaesthetic and mydriatic actions and toxicity of, 14, 562
- , effect on Tremorine-induced tremor, 14, 561
- Troxidone, effect on acetylcholine release and transmission in ganglion and neuromuscular junctions, 22, 415
- , effect on toe-pinch-induced pain, in guinea-pig, 17, 34
- , ganglion-blocking action of, 23, 243
- , —, and effect of leptazol on, 23, 251
- Trypan blue, chromatographic behaviour of, 14, 425
- Trypan blue (*cont.*)
- , induction of morphological changes in trypanosomes by, in mouse, 21, 259
- , subcutaneous, effect on haemoglobin nitrite sensitivity reaction, and action of adenosine triphosphate and riboflavin, 19, 492
- , —, tissue staining by, 19, 495
- , trypanocidal action on normal and drug-resistant trypanosomes and toxicity of, in mouse, 14, 425
- Trypan red, effect on trypanosomes, in mouse, 14, 425
- Trypanocidal action, effect of oxidation-reduction potential and pH on, 14, 443
- , of *p*-biguanidoacetophenone amidino-hydrazone, 19, 324
- , of enzyme inhibitors, on normal and stilbamidine-resistant trypanosomes, *in vitro*, 14, 445
- , of homidium, isometamidium, metamidium and other phenyldiazoamino- and phenylazoamino-phenanthridinium compounds, 17, 396
- , of homidium, melarsoprol, quinapyramine, stilbamidine and suramin, 15, 567
- , of pyrimidinylaminophenyl arsenicals, 13, 244
- , of various substances, *in-vitro* effect of pH on, 14, 449
- , —, on normal and drug-resistant trypanosomes, in mouse, 14, 423
- , —, selective interference with, 14, 431
- , and oxidation-reduction potentials, of redox substances, 14, 447
- Trypanocides, effect on *Theileria annulata* in tissue culture, 13, 459
- , pK_a values of, 14, 435
- Trypanosoma brucei infections, experimental, histamine, kinin and kininogen in plasma, tissues and urine during, in mouse, 24, 124
- Trypanosoma congolense infections, experimental, effect of *p*-biguanidoacetophenone amidino-hydrazone in, in mouse, 19, 324
- , —, effect of homidium, isometamidium, metamidium and other phenyldiazoamino- and phenylazoamino-phenanthridinium compounds, 17, 396
- , —, effect of homidium, isometamidium and pyrimidium in, in mouse, 25, 658
- , —, effect of pyrimidinylaminophenyl arsenicals in, in mouse, 13, 244
- Trypanosoma cruzi infections, experimental, effect of pyrimidinylaminophenyl arsenicals in, in mouse, 13, 244
- , —, effect of 3,4-xylylidine derivatives and related compounds in, in mouse, 13, 434
- Trypanosoma rhodesiense, absorption of pyrimidium (*Prothidium*) by, 15, 230
- , cross-resistance in, 14, 423
- , normal and drug-resistant strains of, effects of metabolic inhibitors, oxidation-reduction potential and pH on, 14, 443
- , normal and stilbamidine-resistant strains of, citrate metabolism of, and effect of fluoroacetate on, 14, 447
- , —, oxidation-reduction potentials of suspensions of, effect of redox dyes on, 14, 449
- , —, phosphate metabolism of, effect of 2,4-dinitrophenol, fluoride and magnesium ions on, 14, 445
- , —, respiration of, effect of 2,4-dinitrophenol on, 14, 446
- , selective inhibition of trypanocides active against, 14, 431
- , uptake of stilbamidine by, 14, 140
- Trypanosoma rhodesiense infections, experimental, effect of *p*-biguanidoacetophenone amidino-hydrazone in, in mouse, 19, 324

- Trypanosoma rhodesiense** infections, experimental (*cont.*)
 —, —, effect of *p*-(2,6-diaminopyrimidin-4-ylamino)-phenylarsine oxide and melarsen oxide/BAL in, 13, 436
 —, —, effect of homidium, isometamidium and pyriithidium in, in mouse, 25, 658
 —, —, effect of nitrofurazone in, in mouse, 14, 406
 —, —, effect of pyrimidinylaminophenyl arsenicals in, in mouse, 13, 244
 —, —, pharmacologically active polypeptides in blood and urine from animals with, 15, 152
Trypanosoma vivax infections, experimental, prophylactic action of pyriithidium (*Prothidium*) in, in rat, 15, 240
Trypanosomes, cross-resistance in, 14, 423
 —, granules and other changes in phase-contrast appearance produced by diamidine, phenanthridinium, quinapyramine and suramin-type drugs in, in mouse, 21, 259
 —, infectivity for mouse, effect of homidium, isometamidium and pyriithidium on, 25, 658
 Trypanosomiasis. *See Trypanosoma* infections
Tryparsamide, reduced, trypanocidal action of, effect of *p*-aminobenzoic acid on, 14, 436
 —, trypanocidal action of, effect of *p*-aminobenzoic acid on, 14, 436
 —, trypanocidal action on normal and drug-resistant trypanosomes and toxicity of, in mouse, 14, 425
Trypsin, effect on physalaemin, 25, 369
 —, effect on plasma kinin and saliva- and urine-colostrokinin, 14, 551
 —, effect on response of small intestine to kallidin, 24, 491
 —, effect on response of small intestine and uterus to acetylcholine, bradykinin and histamine, 22, 371
 —, effect on response of uterus to bradykinin, 22, 377
 —, formation of bradykinin by, effect of pH on, 19, 304
 —, formation of bradykinin from heated plasma by, 21, 252
 —, formation of vasodilator substance from acid-treated plasma by, 21, 253
 —, inhaled, effect on tidal air, 15, 309
 —, inhibitors of. *See under* Ovomucoid and Soya bean
 —, ¹³¹I-labelled, preparation of, 15, 305
 —, release of bradykinin from tissues by, 23, 369
 —, resistance of eledoisin to, 19, 332
 —, response of goldfish intestine to, and effect of trypsin inhibitor on, 17, 459
 —, response of small intestine to, and effect of mepyramine on, 22, 376
 —, response of uterus to, 22, 377
 —, stability of smooth-muscle-stimulating substance in nasal mucosa to, 13, 116
Tryptamine, α -alkyl derivatives of. *See* α -Alkyltryptamines
 —, and its analogues and derivatives, effect on behaviour, blood pressure and cerebral electrical activity, and action of adrenalectomy, adrenaline, amphetamine, atropine, bromolysergic acid, chlorpromazine and physostigmine, in cat, 24, 659
 —, central action of, in chick, 25, 705
 —, —, effect of aromatic-aminoacid-decarboxylase inhibitors on, in mouse, 24, 57
 —, —, effect of chlorpromazine, methotrimeprazine, prochlorperazine, 9620 RP, thiopropazine and trifluoperazine on, 22, 308
 —, —, effect of chlorpromazine and thiopropazine on, 22, 306
 —, —, effect of cocaine and mebanazine on, in chick, 25, 715

- Tryptamine**, central action of (*cont.*)
 —, —, effect of Hydergine on, in chick, 25, 714
 —, —, effect of mebanazine on, in fowl, 25, 718
 —, —, effect of methysergide on, in chick, 25, 712
 —, —, effect of pheniprazine (*phenylisopropyl-hydrazine*) on, 17, 261
 —, —, and its derivatives, oxidation by stomach homogenate, and inhibition by iproniazid, 14, 89
 —, —, effect on discharges induced in cerebral cortical neurones by L-glutamate and synaptic excitation, 20, 473
 —, —, response of stomach-strip preparation to, and effect of amine-oxidase inhibitors on, 14, 87
 —, —, response of stomach-strip preparation and uterus to, 14, 99
 —, —, response of *Tapes* heart to, 25, 490
 —, —, response of *Venus* heart to, structure-actions relations in, 15, 375
 —, derivatives of, in *Ranunculus sceleratus* extracts, 25, 743
 —, —, *N*-substituted, metabolism, pharmacological actions, synthesis and toxicity of, 23, 43
 —, —, effect on D and M receptors of ileum, 14, 553
 —, —, effect on response of rectal caecum to 5-hydroxytryptamine, 17, 150
 —, —, effect on uptake of 5-hydroxytryptamine by blood platelets, 16, 291
 —, —, neurone-depressant action of, 18, 230
 —, —, occurrence and metabolism in mammalian semen, 17, 208
 —, —, oxidation by *Chlamys* homogenates, 15, 45
 —, —, oxidation by fundus, liver and uterus, and effect of substances which antagonize 5-hydroxytryptamine more than tryptamine on fundal strip on, 16, 156
 —, —, oxidation by monoamine oxidase, and effect of inhibitors on, 17, 312
 —, —, oxidation by *Mytilus* byssus homogenates, 15, 45
 —, —, oxidation by *Mytilus* digestive-gland homogenates, and effect of iproniazid on, 15, 45
 —, —, response of blood pressure to, effect of chlorpheniramine, hyoscine, α -methylphenethylamine, methysergide, pronethalol, reserpine and tranylcypromine on, in chick, 25, 718
 —, —, and effect of iproniazid and pheniprazine (*phenylisopropylhydrazine*) on, 14, 93
 —, —, response of fundal-strip preparation to, effect of cocaine, dexamphetamine, imipramine, monoamine-oxidase inhibitors and pyrogallol on, 17, 313
 —, —, response of fundus to, effect of cocaine and 3-phenoxypropylguanidine on, 18, 477
 —, —, response of goldfish intestine to, 17, 457
 —, —, response of small intestine to, effect of lysergide (*lysergic acid diethylamide*), morphine and phenoxybenzamine on, 14, 554, 557
 —, —, response of stomach-strip preparation to, effect of analogues of 5-hydroxytryptamine and tryptamine and 2-bromolysergic acid diethylamide on, 14, 269
 —, —, effect of 1-benzyl-3-(2-dimethylaminoethyl)-5-methoxy-2-methylindole and 2-bromolysergic acid diethylamide on, 14, 105
 —, —, response of tracheal ring to, and effect of 2-bromolysergic acid diethylamide and pH on, 13, 496
 —, —, response of uterus to, and effect of acetylcholine and 5-hydroxytryptamine analogues on, 14, 265
 —, —, toxicity of, effect of monoamine-oxidase inhibitors on, 17, 315
 —, —, uptake by blood platelets, effect of pH and temperature on, 16, 287
Tryptamine antagonists and imitators, test preparation for, 14, 553

- Tryptamine hydrochloride**, pK values and oil/water solubility coefficient of, 14, 91
- Tryptophan**, dietary, effect on 5-hydroxytryptamine in tissues, in mouse and rat, 15, 516
- , effect of dopa decarboxylase on, 18, 178
- , effect on peristaltic reflex, 15, 219
- , occurrence and metabolism in mammalian semen, 17, 208
- , response of *Venus* heart to, 15, 382
- D-Tryptophan**, effect on diuresis and urinary excretion of 5-hydroxyindolylacetic acid, in rat, 17, 519
- L-Tryptophan**, central action of, and effect of pargyline on, in chick, 25, 716
- , *in-ovo* and *in-vitro* effect on antiviral action of ω -aminoacetophenone derivatives, 13, 408
- , effect on diuresis and urinary excretion of 5-hydroxyindolylacetic acid, in rat, 17, 519
- , effect on uptake of 5-hydroxytryptamine by blood platelets, 16, 291
- , effect on uptake of 5-hydroxytryptophan by brain slices and on 5-hydroxytryptophan decarboxylase, 20, 183
- DL-Tryptophan**, effect on response of cerebral cortical neurones to L-glutamate and synaptic excitation, 20, 471
- Tuaminoheptane**, central action of, in chick, 25, 705
- , —, effect of methysergide on, in chick, 25, 712
- , effect on uptake of noradrenaline by heart at low perfusion concentration, 25, 34
- Tubercle bacillus**. See *Mycobacterial adjuvant and Mycobacterium tuberculosis*
- Tuberculin reaction**, effect of hexadimethrine on, in guinea-pig, 24, 710
- Tuberculosis**, corneal, prolonged treatment with isoniazid, effect on immunity, local lesions and systemic spread, in mouse, 14, 222
- See also *Antitubercular action and Mycobacterium tuberculosis*
- Tubocurarine**, effect on action of dimethylphenylpiperazinium on response of sciatic nerve-gastrocnemius preparation to electrical stimulation, 14, 509
- , effect on action of ethonium ions on response of popliteal nerve-gastrocnemius preparation to electrical stimulation, 24, 231
- , effect on action of salicylate on oxygen consumption, in rat, 14, 219
- , effect on action potentials in motor nerve and striated muscle induced by motor-nerve shocks, 20, 337
- , effect on action potentials in phrenic nerve-diaphragm preparation, 24, 363
- , effect on asynchronous postganglionic firing from superior cervical ganglion induced by neostigmine, 20, 216
- , effect on ciliary movement, 14, 323
- , effect on curarized endplate potentials, 23, 584
- , effect on dorsal-root potentials in spinal cord, 17, 226
- , effect on ganglionic transmission, 23, 229
- , effect on ganglionic and nervous transmission, selectivity of, 23, 273
- , effect on neuromuscular blocking action of benzoquinonium, 13, 523
- , effect on neuromuscular blocking action of bretylium and guanethidine, 17, 374
- , effect on neuromuscular blocking action of decamethonium, 18, 207, 209
- , effect on neuromuscular blocking action of decamethylenebis (2-hydroxyethyl)dimethylammonium, 25, 394
- Tubocurarine (cont.)**
- , effect on neuromuscular blocking action of leptodactyline, 15, 15
- , effect on postganglionic response of neostigmine-treated superior cervical ganglion to acetylcholine and preganglion stimulation, 20, 217
- , effect on response of denervated diaphragm to acetylcholine and potassium ions, 15, 347
- , effect on response of denervated striated muscle to acetylcholine and sympathomimetic amines, 24, 105
- , effect on response of denervated striated muscle to ethonium compounds, 24, 235
- , effect on response of fast- and slow-contracting muscles to indirect stimulation, and action of adrenaline, isoprenaline and tetanus before and after dichloroisoprenaline, phenoxylbenzamine, phentolamine and pronethalol (2-isopropylamino-1-naphth-2'-ylethanol), 19, 478
- , effect on response of hypogastric nerve-vas deferens preparation to electrical stimulation, and action of carbachol and tyramine, 21, 190
- , effect on response of molluscan smooth muscle to acetylcholine, 14, 405
- , effect on response of nerve-muscle preparations to electrical stimulation, action of bath-calcium and -magnesium concentration, muscle resting tension, neostigmine, stimulation frequency and triethylcholine, 20, 6
- , effect on response of nictitating membrane to sympathetic stimulation, 22, 561
- , effect on response of panniculus carnosus-skin preparation to transmural stimulation, and action of neostigmine, 21, 335
- , effect on response of phrenic nerve-diaphragm preparation to electrical stimulation, 17, 187
- , —, and action of calcium-ion concentration and pH, 22, 60
- , effect on response of phrenic nerve-diaphragm and tibialis anterior preparations to acetylcholine and electrical stimulation, 19, 202
- , effect on response of phrenic nerve-diaphragm and tibialis anterior preparations to electrical stimulation, action of tetraethylammonium and triethylcholine, 19, 211
- , effect on response of sciatic nerve-gastrocnemius preparation to electrical stimulation, 22, 480
- , effect on response of sciatic nerve-soleus and -tibialis anterior preparations to electrical stimulation, 24, 363
- , effect on response of semispinalis muscle to decamethonium, 15, 415
- , effect on response of sensitized denervated striated muscle to acetylcholine, histamine and antigenic protein, 25, 616
- , effect on response of small intestine to staphylococcal α -toxin, 14, 63, 64
- , effect on response of sterno-trachealis preparation to indirect stimulation, 18, 614
- , effect on response of striated muscle to acetylcholine, 13, 523; 14, 160
- , —, and action of choline, edrophonium and physostigmine, 14, 460
- , effect on response of striated muscle to acetylcholine and decamethonium, and action of sarin, 15, 26
- , effect on response of striated muscle to acetylcholine and indirect stimulation, action of ambenonium, edrophonium, methoxyambenonium and neostigmine, 20, 66

Tubocurarine (*cont.*)

- , effect on response of striated muscle to chloro- cresol, **24**, 511
- , effect on response of striated muscle to chlor- promazine, **15**, 92
- , effect on response of striated muscle to deca- methonium, **13**, 523
- , effect on response of striated muscle to leptodactyl- ine, **15**, 20
- , effect on response of striated muscle to scorpion venom, **14**, 336
- , effect on response of *Tapes* heart to acetylcholine, **25**, 488
- , effect on response of urinary bladder to transmural stimulation, **25**, 292
- , effect on response of vas deferens to electrical stimulation, **21**, 190
- , effect on Straub phenomenon induced by mor- phine, **15**, 542
- , effect on sympathetic ganglionic transmission, **17**, 411
- , effect on Tremorine-induced tremor, **14**, 561
- , facilitation of patellar reflex by, effect of haloperidol on, **25**, 752
- , ganglion-blocking action of, effect of repetitive preganglionic stimulation on, **24**, 76
- , —, mechanism of, in rat, **24**, 89
- , neuromuscular-blocking action of, **13**, 523; **15**, 79; **18**, 204
- , —, effect of acetylcholine, adrenaline, deca- methonium, potassium ions and suxamethonium on, action of benzoquinonium, **13**, 527
- , —, effect of acetylcholine, choline, decametho- nium, edrophonium and suxamethonium on, **14**, 459
- , —, effect of adrenaline and mecamlamine on, **13**, 524
- , —, effect of ambenonium and methoxyambenon- ium on, in cat, **15**, 476
- , —, effect of benzoquinonium on, **13**, 523
- , —, effect of benzoquinonium, edrophonium, neostigmine, physostigmine (*eserine*) and tetraethyl pyrophosphate on, **13**, 525
- , —, effect of bretylium and guanethidine on, **17**, 377
- , —, effect of chloral hydrate, chloralose and tri- chloroethanol on, **19**, 116
- , —, effect of diacetyl monoxime on, **14**, 318
- , —, effect of ethonium ions on, **24**, 231
- , —, effect of fatigue and stimulation rate on, **13**, 138
- , —, effect of guanidine and its derivatives on, **19**, 416
- , —, effect of hydroxydione sodium succinate on, **15**, 460
- , —, effect of pempidine on, **13**, 345
- , —, effect of pempidine and its *N*-ethyl homo- logue on, **13**, 512
- , —, effect of potassium ions on, **17**, 101
- , —, effect of proadifen (*2-diethylaminoethyl 3,3- diphenylpropylacetate*) on, **18**, 563
- , —, effect of tetraethylammonium on, **14**, 463
- , neuromuscular-blocking action in phrenic nerve- diaphragm preparation from thiamine-deficient rat, **20**, 194
- , permeability of blood-brain barrier to, **13**, 170
- , response of blood pressure and outflow from perfused cerebral ventricles to, in anaesthetized cat, **13**, 158
- , response of denervated striated muscle to, **24**, 105, 235

Tubocurarine (*cont.*)

- , response of nerve-biventer cervicis preparation to, and effect of neostigmine on, **15**, 411
- , response of *Tapes* heart to, and effect of benzo- quinonium and nicotine on, **25**, 488
- , with chlorpromazine, effect on response of striated muscle to acetylcholine, **15**, 91
- Tumours**, human, growth in small laboratory animals, **14**, 307
- , plant, extracts of, antihistaminic action and preparation of, **18**, 87
- Tumour cells**, effect of Colisan on, **18**, 307
- Turpentine**, effect on experimental moniliasis, **13**, 4
- Tween 80**, toxic effects of, **18**, 11
- Tyloxapol**, induction of hyperlipaemia and hyper- cholesterolaemia by, effect of adrenolytics and sympatholytics on, in rat, **23**, 449
- Tyramine** (*p*-tyramine):
 - , central action of, in chick, **25**, 705
 - , comparison of action on noradrenaline response and reversal of sympathetic block in vas deferens preparations, **25**, 243
 - , diuretic action of, **17**, 464
 - , effect of *Mytilus* gill-plate homogenates on, **15**, 43
 - , effect of high concentrations on action of phenoxy- benzamine on response of splenic muscle to acetyl- choline, adrenaline, histamine, 5-hydroxytryptamine and tyramine, **19**, 434
 - , effect on action of bath-calcium concentration, guanethidine, procaine and reserpine on response of vas deferens preparations to electrical stimulation, **25**, 244
 - , effect on action of phenoxybenzamine on response of splenic muscle to acetylcholine, adrenaline and histamine, **19**, 435
 - , effect on action of phenoxybenzamine on response of splenic muscle from reserpinized animals to acetylcholine, adrenaline and histamine, **19**, 435
 - , effect on adrenergic neurone-blocking action of bretylium, guanethidine and xylocholine, **18**, 421
 - , effect on inflammation, in mouse foot, **18**, 350
 - , effect on noradrenaline in heart, **20**, 127
 - , effect on release of adrenaline and noradrenaline by adrenals, in dog, **24**, 563
 - , effect on release of catechol amines by inferior mesenteric ganglion, **22**, 200
 - , effect on release and uptake of noradrenaline by atrium, **16**, 348
 - , effect on response of blood pressure to mephenter- mine, in dog, **24**, 529
 - , effect on response of cerebral cortical neurones to L-glutamate and synaptic excitation, **20**, 471
 - , effect on response of heart beat to butyrylcholine, **23**, 401
 - , effect on response of hypogastric nerve-vas deferens preparation to electrical stimulation, **21**, 191; **22**, 412
 - , effect on response of molluscan smooth muscle to acetylcholine and electrical stimulation, **14**, 405
 - , effect on response of nictitating membrane to sympathetic stimulation, and action of nialamide, **21**, 93
 - , effect on response of nictitating membrane and small intestine to sympathetic stimulation, **18**, 428
 - , effect on response of potassium-depressed phrenic nerve-diaphragm preparation to electrical stimula- tion, and action of phloridzin, **23**, 188
 - , effect on response of spleen to sympathetic stimulation, in reserpinized cat, **15**, 59

Tyramine (cont.)

- , effect on response of vas deferens to electrical stimulation, 21, 194
- , effect on response of vas deferens to transmural stimulation, 25, 244
- , effect on sialogenous action of dopamine, phenethylamine and ephedrine, 15, 329
- , effect on uptake of bretylium and guanethidine by heart, in rat, 25, 174
- , effect on uptake of histamine and 5-hydroxytryptamine by mast cells, 23, 415
- , effect on uptake of 5-hydroxytryptamine by blood platelets, 16, 291
- , effect on uptake of noradrenaline by heart at high and low perfusion concentrations, 25, 34
- , effect on urinary excretion of electrolytes, 17, 467
- , in *Eledone* salivary glands, 19, 328
- , inactivation by diazonium salts, 19, 333
- , interactions between cocaine and noradrenaline and, at noradrenaline stores, 20, 540
- , neurone-depressant action of, 18, 235
- , occurrence and metabolism in mammalian semen, 17, 208
- , oxidation by amine oxidase, and inhibition by amphetamine stereoisomers, 14, 257
- , —, and inhibition by enantiomorphs of 1-phenylethylamine and 2-hydroxy-1-phenylethylamine, 14, 258
- , oxidation by fundus, liver and uterus, and effect of substances which antagonize 5-hydroxytryptamine more than tryptamine on fundal strip on, 16, 156
- , oxidation by monoamine oxidase, and effect of inhibitors on, 17, 312
- , oxidation by stomach homogenate, and inhibition by iproniazid, 14, 89
- , release from spleen, effect of noradrenaline and sympathetic stimulation on, and action of phenoxybenzamine, 24, 478
- , release from spleen after infusion, 24, 478
- , release of noradrenaline from heart by, and effect of reserpine on, 19, 56
- , response of auricular beat to, effect of bretylium, noradrenaline and reserpine on, 16, 335
- , —, effect of bretylium and xylocholine (*choline 2,6-xylyl ether*) on, 15, 119
- , —, and effect of cocaine on, 20, 245
- , —, effect of dichloroisoprenaline on, and action of noradrenaline and tyramine, 20, 248
- , —, effect of guanethidine, phenoxybenzamine and other sympatholytics on, 17, 232
- , —, effect of noradrenaline and reserpine on, 18, 600
- , —, effect of phenoxybenzamine on, and action of noradrenaline, 20, 245
- , response of blood flow, blood pressure and peripheral blood vessels to, in normal and reserpinized cats, 17, 383
- , response of blood pressure to, effect of adrenaline and noradrenaline on, and action of cocaine, methyl phenidate and pipradrol, 20, 543
- , —, effect of BW 392C60 on, 20, 50
- , —, effect of BW 392C60, bretylium and cocaine on, 22, 241
- , —, effect of bethanidine on, 20, 42, 43
- , —, effect of bretylium on, 19, 22
- , —, and effect of bretylium and cocaine on, and action of dihydroxyphenylalanine and noradrenaline, in rat, 16, 320
- , —, effect of bretylium, guanethidine, guanoxan and reserpine on, 24, 39

Tyramine, response of blood pressure to (cont.)

- , —, effect of cocaine, dexamphetamine, imipramine, nialamide, pheniprazine and pipradrol on, in cat, 17, 352
- , —, effect of cocaine, guanethidine, hexahydro-1-azepinepropionamidoxime and 3-phenoxypropylguanidine on, 18, 480
- , —, effect of cocaine and hexamethonium on, 18, 267
- , —, effect of cocaine, methyl phenidate and pipradrol on, and action of reserpine, 20, 546
- , —, and effect of dihydroxyphenylalanine and noradrenaline on, in rat, 16, 320
- , —, effect of guanethidine on, 19, 30
- , —, effect of guanoxan on, 24, 32
- , —, effect of isoprenaline on, and action of cocaine, in cat, 21, 384
- , —, and effect of mephentermine, noradrenaline and reserpine on, in dog, 24, 526
- , —, effect of methyl dopa, α -methyl dopamine and α -methyl noradrenaline on, in reserpinized rat, 22, 80
- , —, effect of nephrectomy and reserpine on, 18, 264
- , —, effect of noradrenaline on, and action of nialamide and noradrenaline, in reserpinized cat, 20, 124
- , —, effect of noradrenaline and its precursors on, in reserpinized animals, 15, 47
- , —, effect of (+)-, (–)- and (±)-*N*-(1-phenylethyl)guanidine on, 24, 401
- , —, effect of reserpine on, in chicken, 16, 134
- , —, effect of tranlycypromine on, in rabbit, 25, 164
- , —, effect of *N*-[2-(2,6-xylyloxy)ethyl]guanidine on, and action of noradrenaline, 25, 538
- , —, tachyphylaxis of, and effect of nialamide on, 21, 85, 87, 89, 90
- , response of blood pressure, cardiac contractility and heart beat to, effect of liothyronine (*tri-iodothyronine*) and reserpine on, 21, 174
- , response of blood pressure and heart beat to, effect of ouabain on, in reserpinized cat, 17, 385
- , response of blood pressure and nictitating membrane to, effect of cocaine and reserpine on, 18, 53
- , —, effect of *N*-*p*-cyclohexylbenzyltropinium derivatives on, 21, 20
- , —, effect of methyl dopa on, 22, 78
- , —, effect of methyl dopa, α -methyl dopamine and α -methyl noradrenaline on, in reserpinized cat, 22, 79
- , —, effect of nialamide and noradrenaline on, 20, 125
- , response of blood vessels to, effect of atropine, bretylium and xylocholine (*choline 2,6-xylyl ether*) on, 15, 63
- , —, and effect of bretylium and xylocholine (*choline 2,6-xylyl ether*) on, 15, 120
- , —, effect of cocaine and 3-phenoxypropylguanidine on, 18, 479
- , —, effect of hexamethonium, nerve section and reserpine on, in rat, 18, 460
- , response of denervated blood vessels to, effect of noradrenaline on, in cat, 15, 51
- , response of denervated iris to, effect of noradrenaline on, in cat, 15, 51
- , response of denervated and innervated arteries from reserpinized and untreated animals, and effect of dopa, dopamine and noradrenaline on, 18, 41
- , response of denervated and innervated nictitating membrane to, mechanisms and sites of action, 21, 27

Tyramine (cont.)

- , response of heart-lung preparation to, effect of cocaine on, 14, 388
- , response of heart beat to, in dog, 24, 529
- , —, effect of bretylium and xylocholine (*choline 2,6-xylyl ether*) on, 15, 63
- , —, and effect of cocaine, hexamethonium, noradrenaline and reserpine on, 13, 461
- , —, and effect of dexamphetamine, hexamethonium and pronethalol on, 23, 401
- , —, and effect of dichloroisoprenaline on, 20, 57
- , —, effect of guanethidine and reserpine on, 19, 80
- , —, effect of propranolol on, 23, 404
- , —, and effect of reserpine on, 19, 56
- , —, —, and action of noradrenaline, 20, 58
- , —, effect of syrosingopine on, 25, 582
- , —, tachyphylaxis of, and relation to myocardial noradrenaline content, 20, 127
- , response of heart beat and spleen to, tachyphylaxis of, and effect of nialamide on, 21, 92
- , response of iris to, effect of dopa, dopamine and noradrenaline on, in reserpinized cat, 15, 49
- , response of iris and nictitating membrane to, effect of bretylium and xylocholine (*choline 2,6-xylyl ether*) on, in cat, 15, 61
- , —, response of molluscan smooth muscle to, 14, 405
- , —, response of nictitating membrane to, effect of antihistamines on, 13, 8
- , —, effect of bretylium on, 19, 21
- , —, effect of cocaine, dexamphetamine, imipramine, nialamide, pheniprazine and pipradrol on, in cat, 17, 340
- , —, effect of cocaine, methyl phenidate and pipradrol on, 20, 545
- , —, effect of ganglionic blockade on, 19, 31
- , —, effect of guanethidine on, 19, 27
- , —, effect of noradrenaline on, and action of nialamide, in reserpinized cat, 20, 124
- , —, effect of 3-phenoxypropylguanidine on, 18, 480
- , —, effect of reserpine on, 19, 31
- , —, effect of substance P on, 15, 12
- , response of small intestine to, 18, 428
- , response of spleen to, effect of noradrenaline on, in reserpinized cat, 15, 51
- , response of splenic muscle to, and effect of cocaine on, 19, 432
- , —, —, action of noradrenaline, 19, 437
- , —, and effect of reserpine on, 19, 434
- , response of splenic muscle from reserpinized animals to, effect of cocaine on, 19, 436
- , —, effect of 5-hydroxytryptamine and noradrenaline on, 19, 437
- , response of vas deferens to, and effect of exhaustive stimulation on, 25, 759
- , response of venous preparations to, 24, 744
- , response of *Venus* heart to, and effect of bromo-lysergic acid diethylamide on, 15, 367, 377
- , sialogenous action of, and effect of cocaine, ephedrine and sympathetic denervation on, 15, 328
- , sympathomimetic action of, effect of isoprenaline, noradrenaline, reserpine and xylocholine (*choline 2,6-xylyl ether*) on, 18, 65
- , toxicity of, effect of monoamine-oxidase inhibitors on, 17, 315
- , uptake by mast cells, 23, 405
- , uptake by perfused heart, 19, 60
- See also Catechol amines
- m*-Tyramine. See Metatyramine

p-Tyramine. See Tyramine

Tyramine methiodide. See [2-(4-Hydroxyphenyl)ethyl]-trimethylammonium

Tyrosinase, effect on actions of bradykinin and synthetic oxytocins and vasopressins, and action of enzyme inhibitors, 18, 405

Tyrosine, effect of dopa decarboxylase on, 18, 178

—, effect on response of blood pressure to tyramine, in reserpinized rat, 15, 48

—, effect on response of cerebral cortical neurones to L-glutamate and synaptic excitation, 20, 471

—, effect on salivary flow, 15, 328

—, effect on trypanocidal action of butarsen, 14, 434

L-Tyrosine, effect on uptake of 5-hydroxytryptophan by brain slices and on 5-hydroxytryptophan decarboxylase, 20, 183

o-Tyrosine. See Orthotyrosine

m-Tyrosine. See Metatyrosine

p-Tyrosine. See Tyrosine

U

UML-491. See Methysergide

Ultrafiltration, of blood plasma, 25, 508

1,1'-Undecamethylenebisisoquinolinium, *in-vitro* cesticidal action of, 24, 240

Undecamethylenebis (trialkylammonium) compounds, biochemical properties, pharmacological actions and molar conductances of, 23, 131

N¹-Undecyloxyguanide, antibacterial action of, 15, 243

Uracil, effect on trypanocidal action of butarsen, 14, 434

—, response of goldfish intestine to, 22, 256

Urea, effect on trypanocidal action of butarsen, 14, 434

Ureter, response to barium ions, histamine and nicotine, effect of Colisan on, 15, 316

—, response to eledoisin, 19, 348

Urethane, anaesthetic action of, effect of pronethalol on, 24, 311

—, anaesthetic action and toxicity of, in newborn animals, 15, 454

—, effect on action of imipramine on toxicity of yohimbine, 21, 58

—, effect on action of physostigmine on response of hypogastric nerve-vas deferens preparation to electrical stimulation, 23, 543

—, effect on catechol amines in adrenals, heart and spleen, in rat, 24, 752

—, effect on drug-induced tremor, in cat, 15, 578

—, effect on hypnotic action and metabolism of pentobarbitone, in rat, 18, 33

—, effect on male fertility, in rat, 14, 154

—, effect on response of cardiovascular system to pronethalol, 21, 468

—, effect on response of hypogastric nerve-vas deferens preparation to electrical stimulation, and action of physostigmine, 23, 543

—, effect on response of hypogastric nerve-vas deferens preparation to noradrenaline, 23, 546

—, effect on response of splenic nerve-spleen preparation to electrical stimulation and noradrenaline, 23, 546

—, response of blood pressure to, and effect of physostigmine and pilocarpine on, 23, 541

—, *in-vitro* trypanocidal action on normal and stilbamidine-resistant trypanosomes, 14, 445

Uridine, response of goldfish intestine to, 22, 256; 23, 617

—, response of large intestine to, 23, 352

Uridine 2',3'-cyclic phosphate, response of goldfish intestine to, 22, 256

Uridine 5'-diphospho-*N*-acetylglucosamine, response of goldfish intestine to, 22, 256

Uridine 5'-diphosphoglucose, response of goldfish intestine to, 22, 256

Uridine phosphates, pharmacological actions of, 22, 254

—, response of blood pressure to, 22, 116

Urinary bladder, experimental induction of calculi in, in rat, 19, 306

—, from reserpinized rat, response to transmural stimulation, 25, 289

—, acetylcholine in, and effect of electrical stimulation on, 24, 183

—, response to acetylcholine, and effect of adrenaline, atropine, hyoscine, noradrenaline and physostigmine on, 24, 178

—, —, effect of atropine, hexamethonium, isopropamide, physiological denervation and physostigmine on, 25, 289

—, —, and effect of atropine and physostigmine on, in rat, 24, 591

—, response to adrenaline, dimethylphenylpiperazinium, isoprenaline, nicotine and noradrenaline, 24, 181

—, response to adrenaline, histamine, 5-hydroxytryptamine and noradrenaline, 25, 290

—, response to adrenaline, McN-A-343 and noradrenaline, in rat, 24, 591

—, response to anabesine, 24, 594

—, response to barium ions and histamine, effect of Colisan on, 15, 316

—, response to bradykinin, and effect of atropine and hyoscine on, 24, 178

—, response to dimethylphenylpiperazinium, effect of mecamlamine and pempidine and its *N*-ethyl homologue on, 13, 508

—, response to dimethylphenylpiperazinium and nicotine, and effect of atropine, bretylium, guanethidine, hemicholinium, hexamethonium, hyoscine, neostigmine, nicotine, pempidine and physostigmine on, in rat, 24, 591

—, response to eledoisin, 19, 348

—, response to 5-hydroxytryptamine, and effect of atropine, hexamethonium, methysergide and morphine on, in rat, 24, 591

—, —, and effect of methysergide and morphine on, 24, 181

—, response to muscarine, and effect of atropine on, 25, 290

—, response to neostigmine and physostigmine, and effect of atropine and hyoscine on, in rat, 24, 591

—, response to nerve stimulation, and effect of atropine, bretylium, cooling, guanethidine, hemicholinium, hexamethonium, hyoscine, methysergide, morphine, oxygen, physostigmine and procaine on, 24, 181

—, —, and effect of atropine, ganglion-blocking agents, guanethidine, hemicholinium, hyoscine, methysergide, physostigmine and procaine on, in rat, 24, 591

—, —, effect of decamethonium on, in cat, 18, 200

—, response to nicotine, effect of atropine, hexamethonium, isopropamide, physiological denervation, physostigmine and tubocurarine on, 25, 289

—, response to transmural stimulation, and effect of atropine, bretylium, hexamethonium, isopropamide, physiological denervation, physostigmine, procaine and tubocurarine on, 25, 288

Urinary excretion, of 4-acetamido-2-morpholino-1,3,5-triazine, in experimental virus infections, in mouse, 24, 275

Urinary excretion (cont.)

—, of adrenaline and noradrenaline, in normal and various experimental conditions, in rat, 13, 35

—, of ampicillin [6-(*α*-amino-*α*-phenylacetamido)penicillanic acid], 17, 415

—, of ampicillin and phenoxymethylpenicillin, 18, 360, 362

—, of bemegride, 14, 36

—, of bethanidine, relation to creatinine clearance, in man, 24, 701

—, of (2-bromoethyl)ethyl(naphth-1-ylmethyl)amine, in rat, 23, 291

—, of cephalosporin C and its pyridinium derivative, 16, 176

—, of chloride, potassium and sodium ions and water, effect of pituitary melanophore-expanding hormone on, 13, 315

—, of chymotrypsin, 15, 308

—, of cloxacillin, in hen, 21, 344

—, of colistin and polymyxins and their sulphomethyl derivatives, 23, 565

—, of dexamphetamine and its derivatives, effect of urinary pH on, in man and rat, 24, 293

—, of electrolytes and water, effect of pituitary melanophore-expanding hormone on, 13, 316

—, of free histamine, effect of castration and testosterone on, and action of aminoguanidine, in male and female rats, 19, 65

—, —, effect of histidine on, in intact, castrated and testosterone-treated male and female rats, 19, 68

—, of histamine, effect of aminoguanidine and ascorbic acid on, in scorbutic guinea-pig, 24, 726

—, —, effect of histidine on, and action of liothyronine, in rat, 23, 434

—, of histamine and kinin, during experimental *Trypanosoma brucei* infections, in mouse, 24, 124

—, of iron, after parenteral iron haematinics, in rat, 22, 275

—, of mecamlamine and pempidine, in rat, 14, 206

—, of methicillin [sodium 6-(2,6-dimethoxybenzamido)penicillanate], 15, 571; 17, 74

—, of methylpentynol and its carbamate, in cat, 13, 368

—, of neostigmine, and effect of Cyanine 863 on, in hen and rat, 25, 234

—, of neostigmine and its metabolites, and effect of Cyanine 863 and proadifen (SK&F 525A) on, in rat, 25, 764

—, of potassium and sodium ions, effect of isoprenaline, orciprenaline and pronethalol on, 25, 155

—, of pyruvate, effect of hydrocortisone on, in cat, 25, 148

—, of thalidomide and its metabolites, 25, 339, 346, 347

Urinary tract infections, experimental, with *Proteus vulgaris*, effect of nitrofurantoin and other nitrofurantoin derivatives on, in rat, 19, 306

Urine, from animals infected with *Babesia rodhaini*, *Plasmodium*, Rift Valley fever virus, *Streptococcus* and *Trypanosoma*, pharmacological actions of, 15, 152

—, from patients with myasthenia gravis, determination of neostigmine and pyridostigmine in, 18, 617

—, human, fractionation and purification of slow muscle-contracting substance in, 13, 271

—, naturally occurring bases in, chromatographic separation of, 20, 289

—, pH of, effect of experimental *Proteus vulgaris* infections on, in rat, 19, 308

—, preparation of kallikrein from, 14, 118

—, retention of, effect of phenoxybenzamine and pentacynium on, 17, 469

- Urine flow**, effect of acetylcholine, dimethylphenylpiperazinium, 5-hydroxytryptamine and nicotine on, **24**, 592
- , effect of dextrose and saline infusions on, in rat, **14**, 368
 - , effect of diuretics on, action of dextrose and saline infusions, in rat, **14**, 368
 - , effect of histamine on, in female mouse, **25**, 2
 - , effect of isoprenaline, orciprenaline and pronethalol on, **25**, 153
 - , effect of noradrenaline on, action of hexamethonium and phenoxybenzamine, in dog, **14**, 382
 - , effect of phenoxybenzamine on, and action of vasopressin, in cat, **14**, 381
 - , effect of procaine on, in dog, **24**, 341
 - , effect of thalidomide on, in rat, **15**, 114
 - See also Antidiuretic action; Diuresis; Diuretic action; and Micturition
- Urine-colostrokinin**. See Kinins, from bovine colostrum
- Urocanoylcholine**. See Murexine
- Urogastone**, gonadotrophic and gastric antiseecretory actions of, **20**, 534
- Uterotrophic action**, of oestradiol, effect of chlorpromazine and perphenazine on, in ovariectomized mouse, **20**, 500
- Uterus**, adrenaline and noradrenaline in, effect of adrenaline infusion on, and action of reserpine, in cat and rat, **18**, 183
- , effect of anoxia on, **21**, 232
 - , effect of chlorpromazine and perphenazine on, in mature and immature female mice, **20**, 498
 - , from oestrogen-treated and untreated guinea-pigs, response to adrenaline, isoprenaline and noradrenaline, **16**, 116
 - , from reserpinized rabbit, response to dexamphetamine, **21**, 432
 - , glycogen in horns and endometrium of, and effect of adrenaline on, **16**, 125
 - , human, *in-vivo* response to oxytocin and related hypophysial peptides, **23**, 176
 - , —, postpartum, as test preparation for oxytocics, **13**, 207
 - , localization of bemegride in, **14**, 36
 - , localization of pronethalol and propranolol in, **25**, 585
 - , noradrenaline in, effect of cocaine and reserpine on, **20**, 547
 - , —, effect of dichloroisoprenaline and phenoxybenzamine on, **22**, 104
 - , oxidation of tryptamine and tyramine by, and effect of iproniazid on, **16**, 160
 - , potassium and sodium ions in, effect of oestrous on, **16**, 124
 - , potassium-depolarized, response to oxytocin, effect of thioglycerol on, **25**, 424
 - , rate of swelling of, in different solutions, **16**, 47
 - , release of histamine from, by compound 48/80 and staphylococcal α -toxin, **25**, 772
 - , response to acetylcholine, effect of adrenaline and isoprenaline on, action of bretylium, **16**, 333
 - , —, effect of adrenaline and noradrenaline on, action of cocaine, guanethidine and phenoxybenzamine, **21**, 364
 - , —, effect of atropine on, in dog, **15**, 59
 - , —, effect of bretylium on, **16**, 333
 - , —, effect of 5-hydroxytryptamine, lysergide (*lysergic acid diethylamide*) and plasma on, **15**, 30
 - , —, effect of iproniazid, nialamide, phenelzine and tranlycypromine on, **25**, 218
 - , —, effect of thioglycollate on, **25**, 406
- Uterus**, response to acetylcholine (*cont.*)
- , —, effect of vasoactive material in brain extracts on, **22**, 116
 - , response to acetylcholine, adenosine and its monophosphate, adrenaline, histamine, 5-hydroxytryptamine, hypertensin, noradrenaline, oxytocin, plasma, substance P, urinary and wasp kinins and vasopressin, **14**, 126
 - , response to acetylcholine, adrenaline, barium ions, noradrenaline and potassium ions, effect of bethanidine on, **20**, 48
 - , response to acetylcholine, barium ions, histamine, 5-hydroxytryptamine and nicotine, effect of Colisan on, **15**, 316
 - , response to acetylcholine, bradykinin and oxytocin, effect of thioglycollate on, **25**, 419
 - , response to acetylcholine and histamine, effect of chymotrypsin on, **22**, 377
 - , response to acetylcholine, 5-hydroxytryptamine and splenic extracts, and effect of atropine and lysergide (*lysergic acid diethylamide*) on, **14**, 397
 - , response to acetylcholine, 5-hydroxytryptamine and its analogues and tryptamine, effect of acetylcholine on, **14**, 267
 - , response to acetylcholine, 5-hydroxytryptamine, oxytocin and potassium ions, effect of ouabain on, **21**, 229
 - , response to acetylcholine, 5-hydroxytryptamine and staphylococcal α -toxin, and effect of atropine, methysergide and phenoxybenzamine on, **25**, 787
 - , response to acetylcholine, 5-hydroxytryptamine and tryptamine, effect of 5-hydroxytryptamine analogues on, **14**, 267
 - , —, and effect of tryptamine analogues on, **14**, 99
 - , response to acetylcholine and oxytocin, effect of *Prymnesium parvum* toxin on, **22**, 54
 - , response to adrenaline, effect of iproniazid, nialamide, phenelzine and tranlycypromine on, **25**, 221
 - , response to adrenaline, dexamphetamine and 5-hydroxytryptamine, effect of phenoxybenzamine on, and action of high concentrations of adrenaline, dexamphetamine and 5-hydroxytryptamine, **21**, 431
 - , response to adrenaline, ergotamine and ergometrine, effect of ergotamine and phenoxybenzamine on, and action of ergometrine, **19**, 125
 - , response to adrenaline and hypogastric nerve stimulation, effect of (+)- and (–)-*N*-(1-phenylethyl)guanidine on, **24**, 402
 - , —, effect of SK&F 90,109 and 90,238 on, **23**, 491
 - , response to adrenaline and isoprenaline, effect of methoxamine on, **24**, 371
 - , response to adrenaline, methylergometrine, oxytocin and potassium ions, effect of carbon dioxide and pH on, **14**, 19
 - , response to adrenaline, nerve stimulation and noradrenaline, effect of bretylium on, **14**, 538
 - , response to adrenaline and noradrenaline, effect of dichloroisoprenaline and phenoxybenzamine on, **22**, 106
 - , response to angiotensin, bradykinin, oxytocin, substance P and vasopressin, **19**, 170
 - , response to angiotensin and 5-hydroxytryptamine, effect of angiotensin on, **18**, 268
 - , response to angiotensin and oxytocin, effect of thioglycollate on, **25**, 425
 - , response to angiotensinamide and its analogues, **15**, 558
 - , response to bethanidine, **20**, 49

Uterus (cont.)

- , response to bradykinin, effect of chymotrypsin, chymotrypsinogen and trypsin on, **22, 376**
- , —, potentiation by cysteine and thioglycollate, mechanism of, **25, 406**
- , response to bradykinin and oxytocin, effect of bradykinin-potentiating factor from venom of *Bothrops* spp. on, **24, 165**
- , —, effect of disulphides, reducing agents, thiols and thiol-blocking agents on, **25, 422**
- , —, effect of thioglycerol on, **25, 421**
- , response to bretylium, **14, 545**
- , response to carbachol and 5-hydroxytryptamine, and effect of carbon dioxide on, **13, 495**
- , response to chymotrypsin and chymotrypsinogen, **22, 376**
- , response to cysteine and thioglycollate, **25, 406**
- , response to deamino-oxytocin, lyspressin (*lysine vasopressin*) and oxytocin, effect of thioglycerol on, **25, 427**
- , response to dexamphetamine, and effect of cocaine on, **21, 433**
- , response to electrical stimulation, effect of adrenaline and noradrenaline on, action of phenoxybenzamine, **22, 108**
- , —, effect of ouabain on, and action of anoxia, calcium-lack and progesterone, **21, 226**
- , response to eledoisin, and effect of atropine and bradykinin on, **19, 347**
- , response to eledoisin, kallidin and oxytocin, effect of chymotrypsin on, **24, 492**
- , response to eledoisin, physalaemin and substance P, **25, 376**
- , response to ergometrine, effect of adrenaline and phenoxybenzamine on, **19, 125**
- , response to ergotamine, effect of adrenaline and phenoxybenzamine on, **19, 124**
- , response to fractionated wasp-venom kinin, **13, 327**
- , response to gonadotrophin, effect of chlorpromazine and perphenazine on, in immature mouse, **20, 501**
- , response to histamine, effect of flavanoids on, **13, 15**
- , —, effect of serpentine on, **16, 150**
- , response to 5-hydroxytryptamine, effect of bethanidine on, **20, 48**
- , —, effect of bretylium on, **14, 545**
- , —, effect of chlorpromazine, iproniazid, morphine, pheniprazine (*β -phenylisopropylhydrazine*) and reserpine on, **15, 142**
- , —, effect of human-tissue extracts on, **21, 422**
- , response to 5-hydroxytryptamine in very small amounts, **23, 617**
- , response to 5-hydroxytryptamine and *Ranunculus sceleratus* extracts, and effect of bromolysergic acid diethylamide on, **25, 745**
- , response to hypoglycin-A, **13, 129**
- , response to leech extracts, and effect of atropine, lysergide (*lysergic acid diethylamide*) and mepyramine on, **16, 259**
- , response to methoxamine, **24, 371**
- , response to ouabain, and effect of anoxia, calcium-lack and progesterone on, **21, 226**
- , response to oxytocin, effect of composition of superfusion fluid on, **14, 328**
- , —, effect of ionic changes on, **16, 45**
- , —, measurement by integrating muscle tension, **19, 132**
- , response to oxytocin and synthetic bradykinin-like polypeptide, **15, 547**
- , response to pepsitensin, **18, 268**
- , response to perfluorobenzene, **22, 363**

Uterus (cont.)

- , response to (+)- and (-)-*N*-(1-phenylethyl)-guanidine, **24, 402**
- , response to physalaemin and *Physalaemus* kinins, and effect of atropine on, **25, 375**
- , response to plasma kinin and saliva- and urine-colostrokinin, **14, 551**
- , response to plasma kinin and urinary kinins, **14, 121**
- , response to progesterone, **21, 231, 232**
- , response to prostaglandins, **21, 184; 24, 471**
- , response to SK&F 90,109 and 90,238, **23, 491**
- , response to slow-muscle-contracting substance in human urine, **13, 271**
- , response to substance P, **19, 353**
- , response to sympathetic stimulation, effect of adrenaline, atropine and physostigmine (*eserine*) on, in reserpinized and untreated cats, **15, 59**
- , —, effect of adrenaline and noradrenaline on, in cat, **15, 51**
- , response to trypsin, **22, 377**
- , response to tryptamine analogues, **14, 99**
- , response to vasoactive material in brain extracts, **22, 116**
- , sensitized, response to repeated doses of antigen, **25, 140**
- , spontaneous activity of, effect of iproniazid, nialamide, phenelzine and tranlycypromine on, and action of atropine, ergotamine, phentolamine and pronethalol, **25, 217**
- , *in-vitro* spontaneous and electrically stimulated activity in, measurement by integrating muscle tension, **19, 129**
- , strips of, response to bradykinin, **22, 331**
- , as test preparation for bioassay of eledoisin, **19, 347**
- , uptake of noradrenaline by, effect of cocaine on, **20, 547**
- , —, effect of dichloroisoprenaline and phenoxybenzamine on, in cat and rat, **22, 104**
- See also Muscle, smooth; Myometrium; and Oxytocic action

Uterus-stimulating action. See Oxytocic action

V

- Vaccination**, with *Haemophilus pertussis*, effect on sensitivity to histamine, in rat, **13, 74**
- Vaccinia infections**, experimental, action of isatin thiosemicarbazone and related compounds in, **15, 101**
- Vagina**, effect of chlorpromazine and perphenazine on, in mature and immature female mice, **20, 498**
- , response to electrical stimulation, effect of hemicholinium on, and action of atropine and choline, **15, 595**
- , weight of, effect of gonadotrophin on, action of chlorpromazine and perphenazine, in immature mouse, **20, 501**
- Vagotomy**, effect on acetylcholine in brain, heart and small intestine, and action of reserpine, in dog, **24, 120**
- , effect on action of guanethidine on response of sympathetic nerve-intestinal segment preparation to electrical stimulation, **17, 255**
- , effect on action of reserpine on gastric acidity, **14, 113**
- , effect on action of sympathomimetic amines on flow through bile duct, **23, 106**
- , effect on bronchoconstrictor action of bradykinin, **15, 291**

Vagotomy (cont.)

- , effect on cardiac response to excitation of chemoreceptors of heart and lungs, 13, 372
- , effect on circulatory responses to lignocaine, in dog, 14, 524
- , effect on fibrillation threshold of mammalian heart, 17, 170
- , effect on induction of bradycardia by sarin, in anaesthetized dog, 15, 172
- , effect on induction of gastric haemorrhage and erosion by 5-hydroxytryptamine, pilocarpine and reserpine, 14, 113
- , effect on reflex response of blood pressure to 5-hydroxytryptamine and phenyldiguamide, 14, 530
- , effect on respiration, in dog, 24, 344
- , effect on response of arterial blood flow to sympathomimetic amines, in cat, 25, 130
- , effect on response of blood pressure to 5-hydroxytryptamine, in dog, 14, 412
- , effect on response of blood pressure to leptodactyline, 15, 17
- , effect on response of blood pressure to pempidine, 13, 343
- , effect on response of blood pressure and heart beat to methoxamine, 24, 366
- , effect on response of blood pressure and nictitating membrane to 3-phenoxypropylguanidine, 18, 483
- , effect on response of respiration to ethyl acetoacetate, in cat, 13, 375
- , effect on response of respiration to procaine, in dog, 24, 344
- , supradiaphragmatic, effect on emetic action of salicylate, 21, 47
- Vagus nerve**, blockade by ganglion-blocking agents, effect of guanidine on, 19, 424
- , central stimulation of, response of blood pressure to, effect of bretylium on, 14, 542
- , —, —, effect of 5-hydroxytryptamine on, in dog, 14, 413
- , —, response of blood pressure and nictitating membrane to, 15, 217
- , cooling of, effect on respiratory response to ethyl acetoacetate, in cat, 13, 375
- , distal stimulation of, induction of bradycardia by, effect of bretylium on, 14, 543
- , stimulation of, bronchoconstrictor action of, effect of prostaglandins on, 22, 516
- , —, effect on aconitine-induced auricular flutter, and action of atropine, 21, 369
- , —, induction of bradycardia and hypotension by, effect of pempidine on, 13, 343
- , —, response of auricular beat to, and effect of bretylium on, 15, 118
- , —, —, effect of cocaine and phenoxybenzamine on, 17, 234
- , —, response of blood pressure to, effect of amitriptyline, chlorpromazine, chlorprothixene, desmethylinipramine, desmethylpromazine, imipramine and promazine on, 23, 342
- , —, —, effect of BW 392C60 on, 20, 50
- , —, —, effect of cloxacillin on, 21, 342
- , —, —, effect of *NN*-disubstituted guanidines on, 24, 287
- , —, —, effect of M&B 4348A on, 15, 213
- , —, —, effect of oxolamine on, 16, 214
- , —, —, effect of procainamide on, 22, 146
- , —, —, effect of pronethalol on, 23, 594
- , —, —, effect of substituted 1,3,4-thiadiazoles on, 13, 361

Vagus nerve, stimulation of (cont.)

- , —, response of blood pressure and heart beat to, effect of guanidine on, 19, 423
- , —, —, effect of mecamlamine and pempidine on, 13, 510
- , —, response of heart beat to, effect of decamethonium on, in cat, 18, 198
- , —, —, effect of morphine and nalorphine on, in several species, 14, 209
- , —, response of respiration to, effect of dioxone on, 16, 240
- , —, response of small intestine to, effect of decamethonium on, in cat, 18, 200
- Vagus nerve-stomach muscle preparation**, dog, response to electrical stimulation, effect of atropine and morphine on, 22, 406
- , frog, response to electrical stimulation, effect of atropine, 2-bromolysergic acid diethylamide and mepyramine on, 22, 406
- L-Valine**, effect on ventral root potentials in spinal cord, 16, 262
- Valyl³-oxytocin**, effect on cardiovascular system, in man, 14, 567
- , intravenous, duration of action and persistence in circulation of, in rat, 16, 244
- Vancomycin**, *in-vitro* toxicity to skin, 14, 168
- Vanillic acid**, effect on inflammation, in mouse foot, 18, 347
- Vanillic acid diethylamide**. *See* Ethamivan
- Vas deferens**, guinea-pig, denervated and innervated, catechol amines in, 20, 305
- , —, —, choline acetylase in, 20, 304
- , —, —, noradrenaline in, effect of guanethidine on, 17, 446
- , —, —, response to acetylcholine and noradrenaline, effect of ergotamine, phenoxybenzamine, piperoxan, tolazoline and yohimbine on, 15, 527
- , —, —, response to noradrenaline, effect of amphetamine on, 22, 412
- , —, —, effect of bath-calcium concentration on, and action of amphetamine, carbachol, histamine, 5-hydroxytryptamine, potassium ions and tyramine, 25, 243
- , —, —, effect of bretylium, dimethylphenylpiperazinium, guanethidine, hemicholinium and procaine on, 21, 197
- , —, —, effect of guanethidine on, and action of angiotensin, carbachol, dopamine, histamine, 5-hydroxytryptamine, metaraminol, neostigmine, potassium ions and tyramine, 25, 243
- , —, —, effect of procaine on, and action of amphetamine, carbachol, potassium ions and tyramine, 25, 243
- , —, —, response to transmural stimulation, effect of amphetamine, angiotensin, carbachol, histamine, 5-hydroxytryptamine, neostigmine, noradrenaline, potassium ions and tyramine on, 25, 244
- , —, —, effect of bath-calcium concentration on, action of amphetamine, carbachol, histamine, 5-hydroxytryptamine, noradrenaline, potassium ions and tyramine, 24, 243
- , —, —, and effect of dichloroisoprenaline, hexamethonium and isoprenaline on, 24, 201
- , —, —, effect of guanethidine on, and action of amphetamine, angiotensin, arecoline, carbachol, dopamine, histamine, 5-hydroxytryptamine, metaraminol, methacholine, neostigmine, noradrenaline, physostigmine, potassium ions and tyramine, 25, 243

- Vas deferens**, guinea-pig, response to transmural stimulation (*cont.*)
- , —, —, effect of procaine on, and action of amphetamine, carbachol, histamine, noradrenaline and potassium ions, **25**, 243
 - , —, —, effect of reserpine on, and action of amphetamine, angiotensin, carbachol, histamine, 5-hydroxytryptamine, noradrenaline, potassium ions and tyramine, **25**, 243
 - , —, sympathetic β -receptors in, **24**, 194
 - , rabbit, response to adrenaline, effect of prostaglandin E_1 on, **21**, 538
 - , —, response to adrenaline and noradrenaline, effect of bethanidine on, **20**, 48
 - , rat, noradrenaline in, effect of sympathetic stimulation on, **25**, 758
 - , —, response to noradrenaline, sympathetic stimulation and tyramine, **25**, 759
- See also Hypogastric nerve—vas deferens preparation
- Vascular effects.** See Blood vessels
- Vascular permeability.** See Capillary permeability
- Vascular resistance**, peripheral, effect of hexamethonium on, **17**, 124
- , pulmonary, effect of diphenhydramine and veratrine on, in cat, **13**, 372
- See also Blood vessels
- Vasoactive substances**, in brain extracts, extraction, chromatographic purification, pharmacological actions, properties and stability of, **22**, 113
- , in nasal mucosa of dog and sheep, **13**, 113
- Vasoconstriction**, effect on action of pronethalol on toxicity of chloroform, **24**, 309
- , induced by sympathetic stimulation, effect of BW 392C60 on, **20**, 49
 - , —, effect of bethanidine on, **20**, 42
- Vasoconstrictor action**, of acetylcholine, sympathetic stimulation and tyramine, effect of bretylium and xylocholine (*choline 2,6-xylyl ether*) on, **15**, 120
- , of adrenaline, angiotensin and noradrenaline, effect of bradykinin, histamine and prostaglandin E_1 on, **21**, 539
 - , of adrenaline and 5-hydroxytryptamine, and effect of phenyldiguanide on, **14**, 531
 - , of adrenaline, nerve stimulation and tyramine, effect of cocaine and 3-phenoxypropylguanidine on, **18**, 479
 - , of adrenaline and noradrenaline, effect of bretylium on, **14**, 538
 - , —, effect of cocaine on, **14**, 387
 - , —, effect of hexamethonium and pentolinium on, **13**, 481
 - , —, effect of phentolamine on, **24**, 100
 - , of angiotensin and vasopressin, **19**, 175
 - , of bethanidine, **20**, 42, 43
 - , of dimethylphenylpiperazinium, **14**, 509
 - , of 2-halogenoethylamines, **16**, 79
 - , of heptanalamines and noradrenaline, and effect of cocaine and reserpine on, **18**, 54
 - , of nicotine, effect of noradrenaline on, in reserpinized cat, **15**, 51
 - , of noradrenaline, effect of bethanidine on, **20**, 43
 - , —, effect of dichloroisoprenaline on, in man, **19**, 238, 241
 - , —, effect of hexamethonium on, **17**, 128; **18**, 331
 - , of sympathomimetic amines, **25**, 127
 - , of tolazoline, **22**, 66
 - , pulmonary, of adrenaline, dopamine and noradrenaline, **16**, 196
- See also Blood vessels
- Vasoconstrictor agents**, response of hind-limb blood vessels to, relation to nervous vasomotor tone, in rat, **18**, 451
- Vasodilator action**, coronary, of 6-thioxanthines and xanthines, **17**, 196
- , of acetylcholine, effect of dichloroisoprenaline on, in man, **19**, 241
 - , of bradykinin, oxytocin and substance P, and effect of atropine and mepyramine on, **19**, 175
 - , of choline 3-isobutyl-1-methyl-6-thioxanthinate, theophyllinate and 6-thiotheophyllinate, **16**, 68
 - , of decamethonium, **18**, 196
 - , —, effect of guanethidine and SY 28 on, **18**, 197
 - , of 5-hydroxytryptamine, in man, **14**, 246
 - , of isoprenaline, effect of dichloroisoprenaline on, in man, **19**, 242
 - , —, effect of prostaglandin E_1 on, **21**, 540
 - , of isoprenaline-like adrenaline metabolite, in striated muscle, **24**, 735
 - , of kallidin, **22**, 41
 - , of levisoprenaline, **24**, 100
 - , of lignocaine, **14**, 523
 - , of lignocaine and *o*-methyl- α -propylaminopropionanilide, **16**, 36
 - , of methylpentynol, **22**, 424
 - , of methylpentynol and its carbamate and pentobarbitone, in cat, **14**, 289
 - , of physalaemin, **25**, 371
 - , of sympathomimetic amines, **25**, 127
 - , of Syntocinon and valyl³-oxytocin, and effect of vasopressin on, in man, **14**, 568
- See also Blood vessels
- Vasomotor action**, central, of pempidine, **15**, 215
- , of repeated administration of catechol amines, **24**, 612
- Vasomotor centre**, effect of mecamlamine on, **21**, 39
- Vasomotor tone**, nervous, relation to response to vasoconstrictor agents, in rat hind-limb blood vessels, **18**, 451
- Vasopressin**, bioassay of, using inhibition of histamine-induced acid gastric secretion in rat, **13**, 119
- , effect on coronary flow of normal and atherosclerotic hearts, **15**, 342
 - , effect on response of blood pressure to dopamine, in decapitated rabbit, **13**, 473
 - , effect on response of blood pressure to dopamine and Epinine, in anaesthetized and reserpinized rabbits, **13**, 472
 - , effect on response of blood pressure to 5-hydroxytryptamine, in dog, **14**, 413
 - , effect on response of blood pressure, urinary excretion of catechol amines and urine secretion to phenoxybenzamine, in cat, **14**, 381
 - , effect on responses of sterno-trachealis preparation, **18**, 616
 - , effect on vasodilator action of Syntocinon and valyl³-oxytocin, in man, **14**, 570
 - , induction of cardiovascular changes by, effect of synthetic oxytocin on, in rabbit, **17**, 220
 - , induction of pain by, **19**, 178
 - , renal action of, effect of pituitary melanophore-expanding hormone on, **13**, 316
 - , response of blood pressure to, in intact, nephrectomized and reserpinized rats, **18**, 263
 - , —, and effect of autonomic blocking agents, decapitation, decerebration, progesterone and stilboestrol on, in chicken, **16**, 129
 - , —, effect of nephrectomy and reserpine on, **18**, 264
 - , —, effect of pentapyrrolidinium on, **18**, 266

- Vasopressin**, response of blood pressure to (*cont.*)
 —, —, effect of prostaglandin E_1 on, 21, 538
 —, —, effect of reserpine on, and action of noradrenaline, in chicken, 16, 134
 —, *in-vivo* response of blood pressure and vessels, bronchial muscle, capillary permeability, milk ejection and urine flow to, 19, 171
 —, response of blood vessels to, effect of hexamethonium and nerve section on, in rat, 18, 460
 —, response of bronchial muscle to, in guinea-pig, 19, 193
 —, response of cardiovascular system to, effect of benzethidine, furethidine and pethidine on, 15, 256
 —, response of goldfish intestine to, 17, 459
 —, response of human myometrial preparation and uterus to, effect of ambucetamide on, 15, 129
 —, response of large intestine to, 23, 352
 —, —, and effect of atropine, hexamethonium, mepyramine and pentolinium on, 24, 156
 —, response of large and small intestine, rectal caecum and uterus to, 19, 170
 —, response of small intestine to, effect of analgesic antipyretics on, 15, 608
 —, response of small intestine and uterus to, 14, 126
 —, response of venous preparations to, 24, 747
 —, synthetic, pharmacological actions of, effect of tyrosinase on, 18, 405
See also Arg⁸-vasopressin; Lys⁸-vasopressin; and Pituitary extract
- Vasopressor action.** *See* Pressor action
- Veins**, chain preparations and strips of, response to acetylcholine, and effect of atropine and hexamethonium on, 24, 742
 —, —, response to catechol amines, and effect of dihydroergotamine, phenolamine and pronethalol on, 24, 742
 —, —, response to histamine, and effect of antazoline and mepyramine on, 24, 742
 —, —, response to 5-hydroxytryptamine, and effect of methysergide and morphine on, 24, 742
 —, —, response to papaverine, polypeptides and pronethalol, 24, 742
 —, —, spontaneous activity of, and effect of atropine, catechol amines, cocaine, dihydroergotamine, hexamethonium, histamine, 5-hydroxytryptamine, mepyramine, nitrite, papaverine, phenolamine and theophylline on, 24, 742
 —, mammalian, action potentials in, effect of potassium ions on, relation to depolarization, 25, 595
 —, —, action potentials and tension in, effect of angiotensin on, and action of potassium ions, 25, 592
 —, —, —, effect of histamine on, 25, 592
 —, —, —, effect of isoprenaline and theophylline on, 25, 599
 —, —, —, effect of noradrenaline on, and action of calcium-lack and potassium-ion concentration, 25, 592
See also Blood vessels
- Venom**, cobra, effect on response of sciatic nerve-gastrocnemius preparation to electrical stimulation, 22, 480
 —, —, fractionation of, 25, 197, 198
 —, —, whole and fractionated, actions on muscle-cell membrane, neuromuscular junction and phospholipase A, 25, 197
 —, —, —, toxicity of, 25, 198
 —, from *Bothrops* and *Crotalus* spp., effect on pharmacological actions of bradykinin, 24, 163
 —, scorpion, effect on response of striated muscle to acetylcholine, 14, 335
- Venom**, scorpion (*cont.*)
 —, —, effect on response of striated muscle to veratrine, 14, 337
 —, —, electrophoresis and stability of, 14, 338
 —, —, response of striated muscle to, and effect of calcium ions, tubocurarine and veratrine on, 14, 334
 —, snake, effect on response of small intestine to histamine and staphylococcal α -toxin, 25, 787
- Ventricle**, arrested by cooling and quinidine, effect of acetylcholine on, 13, 306
 —, cerebral. *See* Cerebral ventricle
 —, choline acetylase in, 14, 495
 —, strips of, guinea-pig, response to bretylium, 14, 545
 —, —, rabbit, response to replacement of chloride in bath fluid by ethanesulphonate, and effect of acetylcholine on, 14, 360
See also Heart
- Ventricular beat**, in low-calcium and calcium-free Ringer solutions, 19, 184
 —, response to caprylate, digitoxigenin, hydrogen peroxide, oleate, ouabain, paullinia tannin, tannin and veratridine, in calcium-free Ringer, 19, 186
See also Heart beat
- Venus mercenaria**, heart of, response to acetylcholine and 5-hydroxytryptamine, effect of cerebrospinal fluid on, 19, 295
 —, —, —, effect of ganglioside on, 18, 328
 —, —, response to alkylamines and histamine, and effect of bromolysergic acid diethylamide on, 15, 368
 —, —, response to bufotenine and 5-hydroxy-*NN*-dimethyltryptamine, effect of bromolysergic acid diethylamide on, 18, 328
 —, —, response to catechol amines, 5-hydroxytryptamine, phenethylamine and tyramine, and effect of bromolysergic acid diethylamide on, 15, 365
 —, —, response to cerebrospinal fluid, 19, 295
 —, —, response to cerebrospinal fluid from animals treated with 5-hydroxytryptophan, pheniprazine (*JB-516*) and reserpine, 19, 296
 —, —, response to ephedrine and mescaline, 15, 365
 —, —, response to ganglioside, and effect of bromolysergic acid diethylamide on, 18, 328
 —, —, response to 5-hydroxytryptamine, effect of indol-3-yl-acetic and -propionic acids on, 15, 382
 —, —, response to 5-hydroxytryptamine and lysergic acid and its derivatives, 18, 440
 —, —, response to tryptamine analogues and other stimulants, structure-action relations, 15, 375
- Veratramine**, toxicity of, 22, 394
- Veratric acid**, effect on inflammation, in mouse foot, 18, 347
- Veratridine**, effect on peristaltic reflex, 13, 446
 —, renal effects of, in anaesthetized and conscious rats, 14, 74
 —, response of hypodynamic heart to, in calcium-free Ringer solution, 19, 186
 —, response of pulmonary blood flow and blood pressure to, and effect of vagotomy on, in cat, 13, 372
- Veratrine**, effect on peristaltic reflex, 13, 446
 —, effect on response of small intestine to acetylcholine and nicotine, 13, 445
 —, response of pulmonary blood flow, blood pressure and vascular resistance to, and effect of vagotomy on, in cat, 13, 372
 —, response of striated muscle to, and effect of scorpion venom on, 14, 337
- Veratrum alkaloids**, effect on peristaltic reflex, 13, 446
 —, response of chick amnion to, and effect of atropine on, 21, 287
- Versene.** *See* Edetic acid

Vesicant action, of *Gluta renghas* extract, 15, 440
Vibrio cholerae, sensitivity to benzylpenicillin, cephaloram and cephalosporin C, 22, 24
 —, sensitivity to cephalosporin C and its pyridinium derivative, 16, 173
Vibrio metchnikovi, sensitivity to diloxanide and M&B 4321, 18, 132
 Vioform. See Iodochlorhydroxyquin
 Viomycin, effect on *Theileria annulata* in tissue culture, 13, 459
 Virucidal action. See Antiviral action
 Virus infections, experimental, metabolism of triazine derivatives in, in mouse, 24, 274
 Vision. See Eye
 Vital red, effect on trypanosomes, in mouse, 14, 425
 Vitamin B₁₂, effect on antiviral action of *N*-(2-piperidinoethyl)-3,4-xylylidine, in tissue culture, 13, 434
 Vitamin-K activity, estimation of, 14, 14
 Vitamin K₁, effect on anticoagulant-induced hypoprothrombopaenia, in rat, 14, 14
 Vitamin P. See Hesperidin
 Vitamin P-like action, of chalcones, 13, 15
 Vitreous humour, localization of methylpentynol and its carbamate in, in cat, 13, 368
 Vomiting. See Emetic action
 Vomiting sickness, role of *Blighia sapida* in, 13, 129
 Vulcamycin, effect on *Theileria annulata* in tissue culture, 13, 459
Vulgoerithium vulgatum, absence of eleodoisin in, 19, 330

W

W 2. See 3,4-Dimethyl- ω -piperidinoacetanilide
 W 6. See 1-(3,4-Xylylcarbamoylmethyl)pyridinium
 W 55. See *N*- β -Piperidinoethyl-3,4-xylylidine
 WIN 4981. See 3,6-Di(3-diethylaminopropoxy)pyridazine di(methiodide)
 Wy 1611A. See 5-(3-Dimethylaminopropyl)-5,6,7,8,9,10-hexahydrocyclohept[b]indole
 Wy 3263. See 5-Dimethylaminomethyl-6,7,8,9,10,11-hexahydrocyclo-oct[b]indole
 Wy 3467. See Diazepam
 Warfarin, anticoagulant action of, antidotal effect of vitamin-K-like substances, in rat, 14, 15
 Water, effect on oxytocin release, in lactating rat, 17, 298
 Water diuresis. See under Diuresis
 Weight, body, effect of histamine on, in female mouse, 25, 2
 Worms, intestinal, *in-vitro* testing of compounds against, 15, 436
 —, round-. See *Ascaris lumbricoides*
 Wounds, healing of, effect of Fucidin on, in rat, 19, 321
 —, skin, experimental, healing of, effect of glucocorticoids, heparin, histamine, histidine, 5-hydroxytryptamine, lysergide (*lysergic acid diethylamide*), skin-histamine and -5-hydroxytryptamine levels, and stress on, 20, 507
 —, —, —, —, effect of sex and weight on, in rat, 20, 509
Wuchereria bancrofti, infective larvae of, *in-vitro* effect of diethylcarbamazine on, 13, 318
 Wyeomyia virus infections, experimental, effect of isatin β -thiosemicarbazone in, 15, 108

X

Xanthine, effect on trypanocidal action of butarsen, 14, 434
 Xylene cyanol FF, chromatographic behaviour of, 14, 425
 —, effect on trypanosomes, in mouse, 14, 425
 3,4-Xylylidine, its derivatives and related compounds, antiviral action in tissue culture, properties and synthesis of, 13, 424
 —, —, *in-vitro* effect on *Candida albicans*, *Escherichia coli*, *Staphylococcus aureus*, *Streptococcus pyogenes* (haemolyticus) and *Trypanosoma cruzi*, 13, 434
 Xylocaine. See Lignocaine
 Xylocholine (choline 2,6-xylyl ether):
 —, adrenergic neurone-blocking action of, 23, 497
 —, blocking action on neuromuscular and sympathetic ganglion and postganglionic nervous transmission, 20, 378
 —, effect on electroencephalogram and on response to reticular stimulation, in cat, 13, 490
 —, effect on pressor action of blood plasma, 19, 365
 —, effect on release of noradrenaline from splenic nerve endings, and action of cocaine and phenoxybenzamine on, 14, 481
 —, effect on response of atropinized atrium to acetylcholine, 15, 119
 —, effect on response of auricular beat to sympathetic stimulation, 15, 118
 —, effect on response of auricular beat to tyramine, 15, 119
 —, effect on response of blood pressure to noradrenaline and physostigmine (*eserine*), in rat, 16, 105
 —, effect on response of blood vessels to acetylcholine, sympathetic stimulation and tyramine, 15, 120
 —, —, in atropinized rabbit, 15, 63, 120
 —, effect on response of heart beat to acetylcholine, sympathetic stimulation and tyramine, 15, 63
 —, effect on response of iris and nictitating membrane to sympathetic stimulation and tyramine, in cat, 15, 61
 —, effect on response of nictitating membrane and small intestine to sympathetic stimulation, and action of monoamine-oxidase inhibitors and sympathomimetic amines, 18, 421
 —, effect on response of nictitating membrane and splenic volume to sympathetic stimulation, and action of atropine and cocaine, 14, 477
 —, effect on response of small intestine to sympathetic stimulation, 17, 256
 —, effect on sialogenous action of 4-*m*-chlorophenylcarbamoyloxybut-2-ynyltrimethylammonium, dimethylphenylpiperazinium and pilocarpine, 18, 504
 —, effect on sympathomimetic action of adrenaline, noradrenaline and tyramine, 18, 67
 —, local anaesthetic action of, 25, 539
 —, response of nictitating membrane and salivary gland to, 18, 506
 Xylose, effect on *in-vitro* histamine release and mast-cell damage by dextran, 19, 410
 L-Xylose, effect on dextran-induced anaphylactoid reaction, in rat, 24, 731
 D-Xylose, effect on action of polysaccharides on capillary permeability, in rat, 25, 605
N-(2,3-Xylyl)anthranilic acid. See Mefenamic acid
N-(3,4-Xylyl)butylpiperidine, antiviral action in tissue culture, properties and synthesis of, 13, 424
 1-(3,4-Xylylcarbamoylmethyl)pyridinium, effect on *Theileria annulata* in tissue culture, 13, 459

- 1-(Xylylcarbamoylethyl)pyridinium chlorides, effect on influenza virus in tissue culture, properties and synthesis of, 13, 424
- N*¹-2,5- and -3,4-Xylyldiguanide, antiviral action in tissue culture, 13, 424
- o*-Xylylene diamine, effect on enzymic oxidation of cadaverine, 14, 365
- , effect on enzymic oxidation of oxedrine, 14, 365
- , enzymic oxidation of, 14, 365
- m*-Xylylene diamine, effect on enzymic oxidation of cadaverine, 14, 365
- , enzymic oxidation of, 14, 365
- p*-Xylylene diamine, effect on enzymic oxidation of benzylamine and spermine, 14, 365
- , effect on enzymic oxidation of cadaverine and oxedrine, 14, 365
- , enzymic oxidation of, 14, 365
- N*-[1-(2,4-Xylyl)ethyl]guanidine, adrenergic neurone-blocking action and synthesis of, 24, 395
- , effect on cardiac noradrenaline, dopamine- β -oxidase, eyelid and monoamine oxidase, 24, 408
- N*-[2-(3,4-Xylyl)ethyl]piperidine, antiviral action in tissue culture, properties and synthesis of, 13, 424
- 3,4-Xylylguanidine, antiviral action in tissue culture, 13, 424
- N*-(2,4-Xylylmethyl)guanidine. *See N*-(2,4-Dimethylbenzyl)guanidine
- 2-(3,4-Xylyloxy)ethyl chloride, properties and synthesis of, 13, 429
- N*-[2-(2,6-Xylyloxy)ethyl]guanidine, adrenergic neurone-blocking and other pharmacological actions of, 25, 534
- N*-[2-(3,4-Xylyloxy)ethyl]piperidine, antiviral action in tissue culture, properties and synthesis of, 13, 424
- N*-[3-(3,4-Xylyloxy)propyl]piperidine, antiviral action in tissue culture, properties and synthesis of, 13, 424
- β -3,4-Xylylpropionic acid, properties and synthesis of, 13, 430
- N*-[3-(3,4-Xylyl)propyl]piperidine, antiviral action in tissue culture, properties and synthesis of, 13, 424
- 3,4-Xylylthioacetopiperidide, properties and synthesis of, 13, 430

Yohimbine (cont.)

- , effect on monoamine oxidases in brain, 21, 61
- , effect on neuronal excitation, 18, 236
- , effect on noradrenaline in brain, and action of imipramine, 21, 61
- , effect on potentials in vas deferens during hypogastric and intramural nerve stimulation, 23, 606
- , effect on response of auricular beat to butyrylcholine, noradrenaline and tyramine, 17, 233
- , effect on response of auricular beat and small intestine to acetylcholine, 20, 531
- , effect on response of blood pressure to eledoisin, 20, 524
- , effect on response of cardiac nerve-pulmonary artery preparation to electrical stimulation, 22, 178
- , effect on response of cerebral cortical neurones to L-glutamate and synaptic excitation, 20, 471
- , effect on response of hypogastric nerve-vas deferens preparation to electrical stimulation, 20, 303; 24, 679
- , effect on response of large intestine to acetylcholine, nerve stimulation and noradrenaline, 23, 158, 160
- , effect on response of pulmonary artery to acetylcholine, 22, 178
- , effect on response of small intestine to acetylcholine, 24, 678
- , effect on response of small intestine to sympathetic stimulation, 24, 683
- , effect on response of smooth-muscle preparations to acetylcholine and sympathetic stimulation, 20, 418
- , effect on response of striated muscle to acetylcholine, 24, 676
- , effect on response of vas deferens to acetylcholine, noradrenaline and sympathetic stimulation, 15, 527
- , non-induction of pecking by, in pigeon, 15, 288
- , response of heart beat to, effect of imipramine on, and action of pronethalol, 21, 61
- , response of *Venus* heart to, 15, 383
- , toxicity of, effect of adrenergic blocking agents, antagonists of acetylcholine, histamine and 5-hydroxytryptamine, monoamine-oxidase inhibitors and stimulants on, 21, 56
- , —, effect of amitriptyline, chlorpromazine, chlorprothixene, desipramine (*desmethylinipramine*), desmethylpromazine, imipramine and promazine on, 23, 336

Youden square, in biological assays, 21, 67

Y

- Yeast, induction of oedema by, effect of hexadimethrine and protamine sulphate on, 24, 706
- , polysaccharides from, effect on capillary permeability, and action of mepyramine, methysergide, mono- and di-saccharides and related substances, in rat, 25, 602
- Yohimbine, anticholinesterase action of, 15, 529
- , anti-inflammatory action of, 18, 352
- , autonomic and psychic actions and toxicity of, effect of imipramine on, and action of adrenalectomy, anaesthetics, antiadrenaline agents, anticonvulsants, ganglion - blocking agents, 5 - hydroxytryptamine antagonists, reserpine, syrosingopine and tetra-*benazine*, 21, 51
- , effect on apomorphine-induced emesis and pecking, in pigeon, 16, 142
- , effect on catechol amines in adrenals, and action of imipramine, 21, 59

Z

- Zika virus infections, experimental, effect of isatin β -thiosemicarbazone in, 15, 108
- Zinc salts, effect on kininase of human erythrocytes, plasma and saliva, 23, 442
- Zoxazolamine, effect on hypnotic action and metabolism of pentobarbitone, in rat, 18, 35
- , paralysing action of, 13, 358
- Zymosan, yeast, effect on capillary permeability, and action of mepyramine, methysergide, mono- and di-saccharides and related substances, in rat, 25, 602

- 48/80. *See* Compound 48/80
24605. *See* *NN*-Dimethyl-*t*-octylamine
25636. *See* 2,2,6,6-Tetramethylpiperidine
25637. *See* *N*-Ethyl-*t*-octylamine
25645. *See* *N*-Ethyl-*t*-butylamine
25745. *See* Pempidine
26539. *See* 1-Ethyl-2,2,6,6-tetramethylpiperidine
26687. *See* 1-Benzyl-2,2,6,6-tetramethylpiperidine
26725. *See* 2,2,6-Trimethylpiperidine
26857. *See* 1-Butyl-2,2,6,6-tetramethylpiperidine
28921. *See* 1-Allyl-2,2,6,6-tetramethylpiperidine
29867. *See* 2,2,6,6-Tetramethyl-1-propylpiperidine
-