

# **Supplementary Material**

## **Molecular Neurobiology**

### **Diltiazem Promotes Regenerative Axon Growth**

Eric A. Huebner<sup>1,2</sup>, Stéphane Budel<sup>2</sup>, Zhaoxin Jiang<sup>2</sup>, Takao Omura<sup>1</sup>,  
Tammy Szu-Yu Ho<sup>1</sup>, Lee Barrett<sup>1</sup>, Janie S. Merkel<sup>3</sup>, Luis M. Pereira<sup>4</sup>, Nick A. Andrews<sup>1</sup>,  
Xingxing Wang<sup>2</sup>, Bhagat Singh<sup>1</sup>, Kush Kapur<sup>1</sup>, Michael Costigan<sup>1,4</sup>,  
Stephen M. Strittmatter<sup>2,\*</sup>, Clifford J. Woolf<sup>1,\*</sup>

<sup>1</sup>F.M. Kirby Neurobiology Center, Boston Children's Hospital and Harvard Medical School, Boston, Massachusetts 02115, USA.

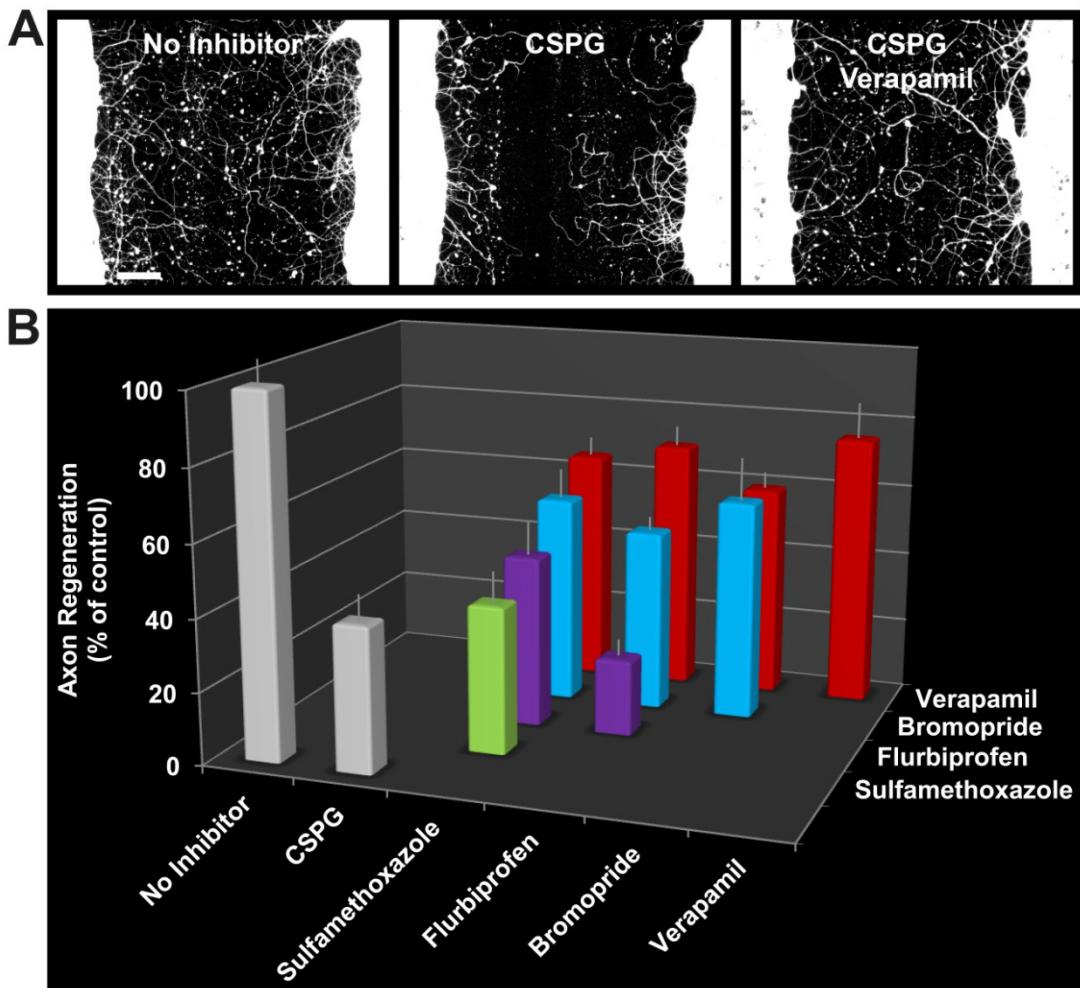
<sup>2</sup>Cellular Neuroscience, Neurodegeneration and Repair Program, Departments of Neurology and Neuroscience, Yale University School of Medicine, New Haven, Connecticut 06520, USA.

<sup>3</sup>Yale Center for Molecular Discovery, Yale University, West Haven, CT 06516, USA.

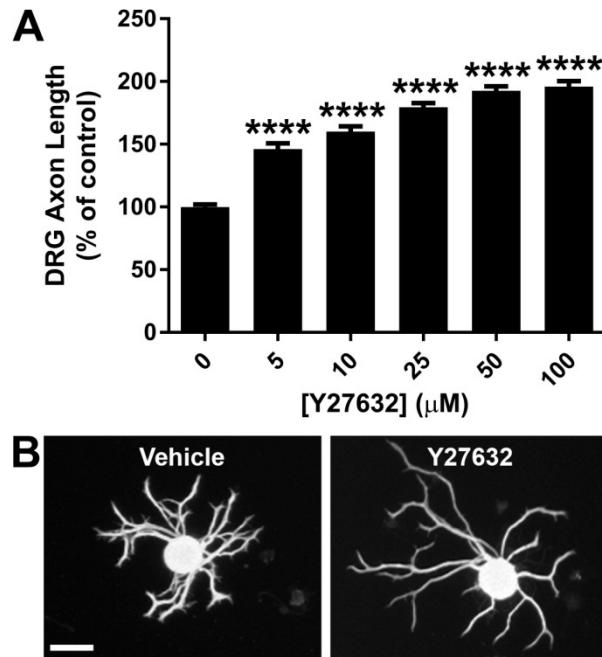
<sup>4</sup>Department of Anesthesiology, Perioperative and Pain Medicine, Boston Children's Hospital and Harvard Medical School, Boston, Massachusetts 02115, USA.

\*Co-corresponding author.

Correspondence: stephen.strittmatter@yale.edu, clifford.woolf@childrens.harvard.edu



**Supplementary Fig. 1** Lack of drug synergy. *A*,  $\beta$ III-tubulin immunostaining of cortical cultures after five days of regeneration under the indicated conditions. *B*, Quantification of axon regeneration. All conditions include CSPG except for the no inhibitor control. No enhancement of axon regeneration occurs for combinations of drugs relative to the drugs individually (one-way ANOVA, post hoc Bonferroni). Data are mean  $\pm$  S.E.  $n = 6-18$ . Scale bar, 100  $\mu$ m.



**Supplementary Fig. 2** Y27632 promotes DRG axon outgrowth. *A*, Y27632 concentration-response for DRG axon outgrowth on CSPG. Y27632 (100  $\mu\text{M}$ ) increases the total axon length per neuron by 2.0-fold. *B*,  $\beta$ III-tubulin immunostaining of DRG neurons cultured on CSPG for 24 hours in the presence of Y27632 (100  $\mu\text{M}$ ) or vehicle. Data are mean  $\pm$  S.E.  $n = 48-96$ . Scale bar, 100  $\mu\text{m}$ . \*\*\*\*,  $p < 0.0001$ , one-way ANOVA, post hoc Dunnett.

**Supplementary Table 1. Compound Library (Gen-Plus, MicroSource)**

MOLECULE NAME	THERAPEUTIC CLASS
N- (3-TRIFLUOROMETHYLPHENYL)PIPERAZINE HYDROCHLORIDE (TFMPP)	5HT agonist
1-PHENYLBIGUANIDE HYDROCHLORIDE	5HT3 receptor agonist
PHENYLBIGUANIDE	5HT3 receptor agonist
8-CYCLOPENTYLTHEOPHYLLINE	A1 adenosine agonist
1,3-DIPROPYL-8-CYCLOPENTYLXANTHINE [DPCPX]	A1 adenosine antagonist
AZOBENZENE	acaricide
ROTENONE	acaricide, ectoparasiticide, antineoplastic, mitochondrial poison
LISINOPRIL	ACE inhibitor
ENALAPRIL MALEATE	ACE inhibitor, antihypertensive
VESAMICOL HYDROCHLORIDE	acetylcholine transport blocker (vesicular)
EDROPHONIUM CHLORIDE	acetylcholinesterase inhibitor
DONEPIZIL HYDROCHLORIDE	acetylcholinesterase inhibitor (reversible)
COLFORSIN	adenylate cyclase activator, antiglaucoma
VERAPAMIL HYDROCHLORIDE	adrenergic blocker, Ca channel blocker, coronary vasodilator, antiarrhythmic
OCTOPAMINE HYDROCHLORIDE	adrenergic agonist
TUAMINOHEPTANE SULFATE	adrenergic agonist
TYRAMINE	adrenergic agonist
OXIDOPAMINE HYDROCHLORIDE	adrenergic agonist (ophthalmic)
N-METHYL (-)EPHEDRINE	adrenergic agonist, analeptic
NOREPINEPHRINE	adrenergic agonist, antihypotensive
ADRENALINE BITARTRATE	adrenergic agonist, bronchodilator, antiglaucoma agent
AMIODARONE HYDROCHLORIDE	adrenergic agonist, coronary vasodilator, Ca channel blocker
NAPHAZOLINE HYDROCHLORIDE	adrenergic agonist, nasal decongestant
OXYMETAZOLINE HYDROCHLORIDE	adrenergic agonist, nasal decongestant
TETRAHYDROZOLINE HYDROCHLORIDE	adrenergic agonist, nasal decongestant
XYLOMETAZOLINE HYDROCHLORIDE	adrenergic agonist, nasal decongestant
LABETALOL HYDROCHLORIDE	adrenergic blocker
TOLAZOLINE HYDROCHLORIDE	adrenergic blocker
NADIDE	alcohol and narcotic antagonist
PHENOXYBENZAMINE HYDROCHLORIDE	alpha adrenergic blocker
YOHIMBINE HYDROCHLORIDE	alpha adrenergic blocker, mydriatic, antidepressant
METHOXAMINE HYDROCHLORIDE	alpha1 adrenoreceptor agonist, vasoconstrictor
RAUWOLSCINE HYDROCHLORIDE	alpha2 adrenergic antagonist
p-FLUOROPHENYLALANINE	amino acid antagonist, protein synthesis inhibitor
IPRIFLAVONE	anabolic
METHOXYVONE	anabolic
PIPERINE	analeptic, antibacterial
ANTIPYRINE	analgesic

GLAFENINE	analgesic
NEFOPAM	analgesic
PHENAZOPYRIDINE HYDROCHLORIDE	analgesic
SALICYLAMIDE	analgesic
XYLAZINE	analgesic
(-)-MENTHOL	analgesic (topical), antipruritic agent
EUGENOL	analgesic (topical), antiseptic, antifungal
E-CAPSAICIN	analgesic (topical), depletes Substance P, neurotoxic
CARBAMAZEPINE	analgesic, anticonvulsant
DIFLUNISAL	analgesic, antiinflammatory
FOSFOSAL	analgesic, antiinflammatory
GENTISIC ACID	analgesic, antiinflammatory
INDOPROFEN	analgesic, antiinflammatory
NIFENAZONE	analgesic, antiinflammatory
NIFLUMIC ACID	analgesic, antiinflammatory
ZOMEPIRAC SODIUM	analgesic, antiinflammatory
ACETAMINOPHEN	analgesic, antipyretic
ACETAMINOSALOL	analgesic, antipyretic
ACETANILIDE	analgesic, antipyretic
DIPLOSALSALATE	analgesic, antipyretic
DIPYRONE	analgesic, antipyretic
METERGOLINE	analgesic, antipyretic
PHENACETIN	analgesic, antipyretic
SALICIN	analgesic, antipyretic
ASPIRIN	analgesic, antipyretic, antiinflammatory
RAMIFENAZONE	analgesic, antipyretic, antiinflammatory
SUXIBUZONE	analgesic, antipyretic, antiinflammatory
TETRAHYDROPALMATINE	analgesic, hypnotic, papaverine-like
NALBUPHINE HYDROCHLORIDE	analgesic, narcotic antagonist
TESTOSTERONE	androgen, antineoplastic
TESTOSTERONE PROPIONATE	androgen, antineoplastic
ACONITINE	anesthetic (gastric), antipyretic, and cardiotoxin
BUPIVACAINE HYDROCHLORIDE	anesthetic (local)
BUTACAINE	anesthetic (local)
BUTAMBEN	anesthetic (local)
DIBUCAIN HYDROCHLORIDE	anesthetic (local)
OXETHAZAINE	anesthetic (local)
PRILOCAINE HYDROCHLORIDE	anesthetic (local)
PROCAINE HYDROCHLORIDE	anesthetic (local)
SALICYL ALCOHOL	anesthetic (local)
TETRACAIN HYDROCHLORIDE	anesthetic (local)
LIDOCAINE HYDROCHLORIDE	anesthetic (local), antiarrhythmic
BENZOCAINE	anesthetic (topical)

DYCLONINE HYDROCHLORIDE	anesthetic (topical)
PRAMOXINE HYDROCHLORIDE	anesthetic (topical)
SAFROLE	anesthetic (topical) and antiseptic, pediculicide
BUPROPION	antidepressant
DANAZOL	anterior pituitary suppressant
ALBENDAZOLE	anthelmintic
DICHLOROPHENE	anthelmintic
DIETHYLCARBAMAZINE CITRATE	anthelmintic
FENBENDAZOLE	anthelmintic
MEBENDAZOLE	anthelmintic
NICOLSAMIDE	anthelmintic
OXYBENDAZOLE	anthelmintic
PRAZIQUANTEL	anthelmintic
PYRANTEL PAMOATE	anthelmintic
PYRVINIUM PAMOATE	anthelmintic
THIABENDAZOLE	anthelmintic
ARECOLINE HYDROBROMIDE	anthelmintic (Cestodes), hypotensive, cathartic
HELENINE	anthelmintic, antibacterial, antineoplastic
QUINACRINE HYDROCHLORIDE	anthelmintic, antimalarial, intercalating agent
PARAROSANILINE PAMOATE	anthelmintic, antischistosomal
BITHIONOL	anthelmintic, antiseptic
HYCANTHONE	anthelmintic, hepatotoxic
HARMALOL HYDROCHLORIDE	anthelmintic, narcotic agent
HEXYLRESORCINOL	anthelmintic, topical antiseptic
AZELAIC ACID	acne, antiproliferative agent
IDOQUINOL	antiamebic
QUASSIN	antiamebic
TETRACYCLINE HYDROCHLORIDE	antiamebic, antibacterial, antirickettsial
CYPROTERONE	antiandrogen
CYPROTERONE ACETATE	antiandrogen
FLUTAMIDE	antiandrogen
LEUCOVORIN CALCIUM	antianemic, antidote to folic acid antagonists
ISOSORBIDE DINITRATE	antianginal
MOLSIDOMINE	antianginal
NIFEDIPINE	antianginal, antihypertensive
DISOPYRAMIDE PHOSPHATE	antiarrhythmic
PROCAINAMIDE HYDROCHLORIDE	antiarrhythmic
PROPAFENONE HYDROCHLORIDE	antiarrhythmic
AJMALINE	antiarrhythmic (Class Ia): inhibits glucose uptake by mitochondria, & PAF blocker
HYDROQUINIDINE	antiarrhythmic, antimarial
QUINIDINE GLUCONATE	antiarrhythmic, antimarial
ADENOSINE	antiarrhythmic, cardiac depressant

OUABAIN	antiarrhythmic, cardiotonic, hypertensive, Na/K ATPase inhibitor
ACETYLCHOLINE	antiarrhythmic, miotic, vasodilator (peripheral)
BETAINE HYDROCHLORIDE	antiarteriosclerotic, hypolipidaemic, hepatoprotectant
ACETYLGUCOSAMINE	antiarthritic
GLUCOSAMINE HYDROCHLORIDE	antiarthritic
CELECOXIB	antiarthritic, cyclooxygenase2 inhibitor
KETOTIFEN FUMARATE	antiasthmatic
CROMOLYN SODIUM	antiasthmatic, antiallergy
LOBELINE HYDROCHLORIDE	antiasthmatic, respiratory stimulant
BECLOMETHASONE DIPROPIONATE	antiasthmatic, topical antiinflammatory
3-AMINOPROPANESULPHONIC ACID	antibacterial
ALEXIDINE HYDROCHLORIDE	antibacterial
AMIKACIN SULFATE	antibacterial
AMOXICILLIN	antibacterial
AMPICILLIN SODIUM	antibacterial
AZITHROMYCIN	antibacterial
BACITRACIN	antibacterial
CARBENICILLIN DISODIUM	antibacterial
CEFADROXIL	antibacterial
CEFAZOLIN SODIUM	antibacterial
CEFOTAXIME SODIUM	antibacterial
CEPHALOTHIN SODIUM	antibacterial
CEPHAPIRIN SODIUM	antibacterial
CEPHRADINE	antibacterial
CINOXACIN	antibacterial
CLOFOCTOL	antibacterial
CLOxacillin sodium	antibacterial
COLISTIMETHATE SODIUM	antibacterial
DEMECLOCYCLINE HYDROCHLORIDE	antibacterial
DICLOXA CILLIN SODIUM	antibacterial
DOXYCYCLINE HYDROCHLORIDE	antibacterial
ENOXACIN	antibacterial
ERYTHROMYCIN	antibacterial
ERYTHROMYCIN ETHYLSUCCINATE	antibacterial
FLUMEQUINE	antibacterial
FUSIDIC ACID	antibacterial
GENTAMICIN SULFATE	antibacterial
HETACILLIN POTASSIUM	antibacterial
KANAMYCIN SULFATE	antibacterial
LINCOMYCIN HYDROCHLORIDE	antibacterial
MAFENIDE HYDROCHLORIDE	antibacterial
MECLOCYCLINE SULFOSALICYLATE	antibacterial
MERBROMIN	antibacterial

METHACYCLINE HYDROCHLORIDE	antibacterial
METHICILLIN SODIUM	antibacterial
MINOCYCLINE HYDROCHLORIDE	antibacterial
MOXALACTAM DISODIUM	antibacterial
NALIDIXIC ACID	antibacterial
NITROFURANTOIN	antibacterial
NORFLOXACIN	antibacterial
NOVOBIOCIN SODIUM	antibacterial
OLEANDOMYCIN PHOSPHATE	antibacterial
OXACILLIN SODIUM	antibacterial
OXYTETRACYCLINE	antibacterial
PENICILLIN V POTASSIUM	antibacterial
PHENETHICILLIN POTASSIUM	antibacterial
PIPERACILLIN SODIUM	antibacterial
POLYMYXIN B SULFATE	antibacterial
ROXARSONE	antibacterial
SPECTINOMYCIN HYDROCHLORIDE	antibacterial
SULFABENZAMIDE	antibacterial
SULFACETAMIDE	antibacterial
SULFACHLORPYRIDAZINE	antibacterial
SULFADIAZINE	antibacterial
SULFADIMETHOXINE	antibacterial
SULFAGUANIDINE	antibacterial
SULFAMERAZINE	antibacterial
SULFAMETER	antibacterial
SULFAMETHAZINE	antibacterial
SULFAMETHIZOLE	antibacterial
SULFAMETHOXYPYRIDAZINE	antibacterial
SULFAMONOMETHOXINE	antibacterial
SULFANILAMIDE	antibacterial
SULFANITRAN	antibacterial
SULFAPHENAZOLE	antibacterial
SULFAPYRIDINE	antibacterial
SULFAQUINOXALINE SODIUM	antibacterial
SULFATHIAZOLE	antibacterial
SULFISOXAZOLE	antibacterial
THIAMPHENICOL	antibacterial
TRIMETHOPRIM	antibacterial
VANCOMYCIN HYDROCHLORIDE	antibacterial
DAPSONE	antibacterial (leprotostatic), dermatitis herpetiformis suppressant
CHLORHEXIDINE	antibacterial (topical), disinfectant
CAPREOMYCIN SULFATE	antibacterial (tuberculostatic)
CYCLOSERINE	antibacterial (tuberculostatic)

DIHYDROSTREPTOMYCIN SULFATE	antibacterial (tuberculostatic)
ETHAMBUTOL HYDROCHLORIDE	antibacterial (tuberculostatic)
ETHIONAMIDE	antibacterial (tuberculostatic)
ISONIAZID	antibacterial (tuberculostatic)
PASINIAZID	antibacterial (tuberculostatic)
PYRAZINAMIDE	antibacterial (tuberculostatic)
RIFAMPIN	antibacterial (tuberculostatic)
SODIUM p-AMINOSALICYLATE	antibacterial (tuberculostatic)
STREPTOMYCIN SULFATE	antibacterial (tuberculostatic)
METHENAMINE	antibacterial (urinary)
GENTIAN VIOLET	antibacterial, antihelmintic
AUREOMYCIN	antibacterial, antiamebic, Ca chelator, hepatotoxic; inhibits protein synthesis
CLOXYQUIN	antibacterial, antifungal
PYRITHIONE ZINC	antibacterial, antifungal, antiseborrheic
SULFAMETHOXAZOLE	antibacterial, antipneumocystis
CHLORAMPHENICOL	antibacterial, antirickettsial, inhibits protein synthesis
CHLORAMPHENICOL HEMISUCCINATE	antibacterial, antirickettsial, inhibits protein synthesis
SISOMICIN SULFATE	antibacterial, binds to ribosomes
NITROMIDE	antibacterial, coccidiostat
CIPROFLOXACIN	antibacterial, fungicide
CLINDAMYCIN HYDROCHLORIDE	antibacterial, inhibits protein synthesis
CHLOROXYLENOL	antibacterial, topical and urinary antiseptic
ACTINONIN	antibiotic
AZLOCILLIN SODIUM	antibiotic
BACAMPICILLIN HYDROCHLORIDE	antibiotic
BECANAMYCIN SULFATE	antibiotic
BUTIROSIN SULFATE	antibiotic
CEFTRIAXONE SODIUM	antibiotic
CEPHALOSPORIN C SODIUM	antibiotic
CITRININ	antibiotic
DIBEKACIN	antibiotic
ERYTHROMYCIN ESTOLATE	antibiotic
LASALOCID SODIUM	antibiotic
MONENSIN SODIUM (monensin A is shown)	antibiotic
NIGERICIN SODIUM	antibiotic
PATULIN	antibiotic
PENICILLIN G POTASSIUM	antibiotic
RIBOSTAMYCIN SULFATE	antibiotic
ROXITHROMYCIN	antibiotic
SALINOMYCIN, SODIUM	antibiotic
SPIRAMYCIN	antibiotic
USNIC ACID	antibiotic

PAROMOMYCIN SULFATE	antibiotic, antiamebic
AKLAVINE HYDROCHLORIDE	antibiotic, antineoplastic
URSODIOL	anticholelithogenic
ALVERINE CITRATE	anticholinergic
BENZTROPINE	anticholinergic
CLIDINIUM BROMIDE	anticholinergic
DICYCLOMINE HYDROCHLORIDE	anticholinergic
ISOPROPAMIDE IODIDE	anticholinergic
MEPENZOLATE BROMIDE	anticholinergic
METHSCOPOLAMINE BROMIDE	anticholinergic
OXYPHENCYCLIMINE HYDROCHLORIDE	anticholinergic
PRIDINOL METHANESULFONATE	anticholinergic
PROCYCLIDINE HYDROCHLORIDE	anticholinergic
PROGLUMIDE	anticholinergic
PROPANTHELINE BROMIDE	anticholinergic
EUCATROPINE HYDROCHLORIDE	anticholinergic (ophthalmic)
HOMATROPINE BROMIDE	anticholinergic (ophthalmic)
HOMATROPINE METHYLBROMIDE	anticholinergic (ophthalmic)
TROPICAMIDE	anticholinergic (ophthalmic)
HYOSCYAMINE	anticholinergic, analgesic
TRIHEXYPHENIDYL HYDROCHLORIDE	anticholinergic, antiparkinsonian
ANISODAMINE	anticholinergic, antispasmodic
ATROPINE	anticholinergic, mydriatic
SCOPOLAMINE HYDROBROMIDE	anticholinergic, treatment of motion sickness
GALANTHAMINE HYDROBROMIDE	anticholinesterase, analgesic, antiAlzheimer
9-AMINO-1,2,3,4-TETRAHYDROACRIDINE HYDROCHLORIDE	anticholinesterase, K channel blocker
CHENODIOL	anticholothogenic, antilipemic agent
ANISINDIONE	anticoagulant
DICUMAROL	anticoagulant
PHENINDIONE	anticoagulant
WARFARIN	anticoagulant, rodenticide
SULFASALAZINE	anticolitis and Crohn's disease
DIMETHADIONE	anticonvulsant
ETHOSUXIMIDE	anticonvulsant
MEPHENTOIN	anticonvulsant
PHENACEMIDE	anticonvulsant
PRIMIDONE	anticonvulsant
VALPROATE SODIUM	anticonvulsant
PHENYTOIN SODIUM	anticonvulsant, antiepileptic
ACETYLTRYPTOPHAN	antidepressant
AMITRIPTYLINE HYDROCHLORIDE	antidepressant
CLOMIPRAMINE HYDROCHLORIDE	antidepressant

COTININE	antidepressant
DESIPRAMINE HYDROCHLORIDE	antidepressant
DOXEPIN HYDROCHLORIDE	antidepressant
D-PHENYLALANINE	antidepressant
IMIPRAMINE HYDROCHLORIDE	antidepressant
MAPROTILINE HYDROCHLORIDE	antidepressant
NORTRIPTYLINE	antidepressant
PHENELZINE SULFATE	antidepressant
TRANYLCYPROMINE SULFATE	antidepressant
TRAZODONE HYDROCHLORIDE	antidepressant
TRIMIPRAMINE MALEATE	antidepressant
AMOXEPINE	antidepressant, inhibits norepinephrine uptake
TRYPTOPHAN	antidepressant, nutrient
QUIPAZINE MALEATE	antidepressant, oxytocic
CHLORPROPAMIDE	antidiabetic
TOLAZAMIDE	antidiabetic
TOLBUTAMIDE	antidiabetic
HALOPERIDOL	antidyskinetic, antipsychotic
CACODYLIC ACID	antieczema, dermatologic, herbicide
BROMOPRIDE	antiemetic
DIMENHYDRINATE	antiemetic
MECLIZINE HYDROCHLORIDE	antiemetic
TRIMETHOBENZAMIDE HYDROCHLORIDE	antiemetic
CHLORPROMAZINE	antiemetic, antipsychotic
PROCHLORPERAZINE EDISYLATE	antiemetic, antipsychotic, treatment of vertigo
AMINOHYDROXYBUTYRIC ACID	antiepileptic
GEDUNIN	antifeedant
LUPININE	antifeedant, antiinflammatory, oxytoxic
AZADIRACHTIN	antifeedant, insecticide
CHLOROACETOXYQUINOLINE	antifungal
CICLOPIROX OLAMINE	antifungal
CLOTRIMAZOLE	antifungal
ECONAZOLE NITRATE	antifungal
EXALAMIDE	antifungal
FLUCONAZOLE	antifungal
FLUTRIMAZOLE	antifungal
HEXETIDINE	antifungal
KETOCONAZOLE	antifungal
SULCONAZOLE NITRATE	antifungal
THIRAM	antifungal
TOLNAFTATE	antifungal
MICONAZOLE NITRATE	antifungal (topical)
TRIACETIN	antifungal (topical)

TOMATINE	antifungal, antibacterial, antiinflammatory agent
RHAPONTIN	antifungal, antioxidant
ANTIMYCIN A (A1 shown)	antifungal, antiviral, interferes in cytochrome oxidation
NYSTATIN	antifungal, binds to membrane sterols
GRISEOFULVIN	antifungal, inhibits mitosis in metaphase
PILOCARPINE NITRATE	antiglaucoma agent, miotic
NARINGIN	antihaemorrhagic, antiinflammatory
QUERCITRIN	antihemorrhagic
THONZYLAMINE HYDROCHLORIDE	antihistamine
ANTAZOLINE PHOSPHATE	antihistaminic
CARBINOXAMINE MALEATE	antihistaminic
CHLORPHENIRAMINE (S) MALEATE	antihistaminic
CLEMASTINE	antihistaminic
DIPHENHYDRAMINE HYDROCHLORIDE	antihistaminic
DIPHENYL PYRALINE HYDROCHLORIDE	antihistaminic
PHENIRAMINE MALEATE	antihistaminic
PROMETHAZINE HYDROCHLORIDE	antihistaminic
PYRILAMINE MALEATE	antihistaminic
TRIPELENNAMINE CITRATE	antihistaminic
TRIPROLIDINE HYDROCHLORIDE	antihistaminic
DOXYLAMINE SUCCINATE	antihistaminic, hypnotic
GLYBURIDE	antihyperglycemic
BEZAFIBRATE	antihyperlipidemic
CLOFIBRATE	antihyperlipidemic
FENOFLIBRATE	antihyperlipidemic
PROBUCOL	antihyperlipidemic
COMPACTIN	antihyperlipidemic, HMGCoA reductase inhibitor
SIMVASTATIN	antihyperlipidemic, HMGCoA reductase inhibitor
NIACIN	antihyperlipidemic, vitamin (enzyme cofactor)
BENFLUOREX HYDROCHLORIDE	antihyperlipoproteinemic
CLOFIBRIC ACID	antihyperlipoproteinemic
GEMFIBROZIL	antihyperlipoproteinemic
CARNITINE HYDROCHLORIDE	antihyperlipoproteinemic, gastric and pancreatic secretion stimulant
CAPTOPRIL	antihypertensive
CLONIDINE HYDROCHLORIDE	antihypertensive
gamma-AMINOBUTYRIC ACID	antihypertensive
GUANABENZ ACETATE	antihypertensive
HYDRALAZINE HYDROCHLORIDE	antihypertensive
ISORESERPINE	antihypertensive
METHYLDOPA	antihypertensive
PARGYLINE HYDROCHLORIDE	antihypertensive
PHENTOLAMINE HYDROCHLORIDE	antihypertensive

PRAZOSIN HYDROCHLORIDE	antihypertensive
PROTOVERATRINE A	antihypertensive
RESERPINE	antihypertensive
URAPIDIL	antihypertensive
VERATRINE SULFATE	antihypertensive
QUINAPRIL HYDROCHLORIDE	antihypertensive, ACE inhibitor
MINOXIDIL	antihypertensive, antialopecia agent
METOPROLOL TARTRATE	antihypertensive, antianginal
ACEBUTOLOL HYDROCHLORIDE	antihypertensive, antianginal, antiarrhythmic
PROPRANOLOL HYDROCHLORIDE	antihypertensive, antianginal, antiarrhythmic
PINDOLOL	antihypertensive, antianginal, antiarrhythmic, antiglaucoma agent
SALSOLINE	antihypertensive, antihistamine
LOSARTAN	antihypertensive, AT1 angiotensin II antagonist
HYDROFLUMETHIAZIDE	antihypertensive, diuretic
PROTOVERATRINE B	antihypertensive, emetic
HEXAMETHONIUM BROMIDE	antihypertensive, ganglionic blocker
PENTOLINIUM TARTRATE	antihypertensive, ganglionic blocker
GUANETHIDINE SULFATE	antihypertensive, mitotic agent
TODRALAZINE HYDROCHLORIDE	antihypertensive, peripheral vasodilator
1S,9R-beta-HYDRASTINE	antihypertensive, sedative, antibacterial
MIDODRINE HYDROCHLORIDE	antihypertensive, vasoconstrictor
METHIMAZOLE	antihyperthyroid
PROPYLTIOUROCIL	antihyperthyroid
ALLOPURINOL	antihyperuricemia, antigout, antiurolithic
METARAMINOL BITARTRATE	antihypotensive
BENZALKONIUM CHLORIDE	antiinfective (topical)
BENZETHONIUM CHLORIDE	antiinfective (topical)
CETYLPYRIDINIUM CHLORIDE	antiinfective (topical)
HEXACHLOROPHENE	antiinfective (topical)
NITROFURAZONE	antiinfective (topical)
1S-CAMPHOR	antiinfective, antipruritic
ACRIFLAVINIUM HYDROCHLORIDE	antiinfective, intercalating agent
THIMEROSAL	antiinfective, preservative
ACEMETACIN	antiinflammatory
AESCOLIN	antiinflammatory
BUDESONIDE	antiinflammatory
DICLOFENAC SODIUM	antiinflammatory
ETODOLAC	antiinflammatory
FENBUFEN	antiinflammatory
FENOPROFEN	antiinflammatory
FLUMETHASONE	antiinflammatory
FLUNISOLIDE	antiinflammatory
FLURANDRENOLIDE	antiinflammatory

IBUPROFEN	antiinflammatory
ISOXICAM	antiinflammatory
KETOPROFEN	antiinflammatory
KETOROLAC TROMETHAMINE	antiinflammatory
N- (9-FLUORENYLMETHOXYCARBONYL)-L-LEUCINE (NPC-15199)	antiinflammatory
NABUMETONE	antiinflammatory
NIMESULIDE	antiinflammatory
OXPHENBUTAZONE	antiinflammatory
PHENYLBUTAZONE	antiinflammatory
PIROXICAM	antiinflammatory
SULINDAC	antiinflammatory
SUPROFEN	antiinflammatory
TENOXICAM	antiinflammatory
TOLMETIN SODIUM	antiinflammatory
TRIAMCINOLONE ACETONIDE	antiinflammatory
TRIAMCINOLONE DIACETATE	antiinflammatory
TOLFENAMIC ACID	antiinflammatory, analgesia
FLUFENAMIC ACID	antiinflammatory, analgesic
FLURBIPROFEN	antiinflammatory, analgesic
MEFENAMIC ACID	antiinflammatory, analgesic
(+)-NAPROXEN	antiinflammatory, analgesic, antipyretic
VULPINIC ACID	antiinflammatory, antimicrobial
SODIUM MECLOFENAMATE	antiinflammatory, antipyretic
INDOMETHACIN	antiinflammatory, antipyretic, analgesic
CARBENOXOLONE SODIUM	antiinflammatory, antisecretory, antiulcer
FENSPIRIDE HYDROCHLORIDE	antiinflammatory, bronchodilator
GAMBOGIC ACID	antiinflammatory, cytotoxic
AMYGDALIN	antiinflammatory, experimental antineoplastic
FLUOCINONIDE	antiinflammatory, glucocorticoid
PARTHENOLIDE	antiinflammatory, immune suppressant
ACACETIN	antiinflammatory, spasmolytic agent, antioxidant
CHAULMOOGRIC ACID, ETHYL ESTER	antileptic
AMODIAQUINE DIHYDROCHLORIDE	antimalarial
ARTEMISININ	antimalarial
CINCHONIDINE	antimalarial
CINCHONINE	antimalarial
MEFLOQUINE	antimalarial
PRIMAQUINE DIPHOSPHATE	antimalarial
PYRIMETHAMINE	antimalarial
QUININE ETHYL CARBONATE	antimalarial
CHLOROQUINE DIPHOSPHATE	antimalarial, antiamoebic, antirheumatic, intercalating agent
QUININE SULFATE	antimalarial, skeletal muscle relaxant

CEFAMANDOLE SODIUM	antimicrobial
CEFMETAZOLE SODIUM	antimicrobial
CEFOPERAZOLE SODIUM	antimicrobial
CEFOXITIN SODIUM	antimicrobial
CEFSULODIN SODIUM	antimicrobial
CEFUROXIME SODIUM	antimicrobial
CEPHALORIDINE	antimicrobial
FOSPHOMYCIN	antimicrobial
FURAZOLIDONE	antimicrobial
LOMEFLOXACIN HYDROCHLORIDE	antimicrobial
METAMPICILLIN SODIUM	antimicrobial
OFLOXACIN	antimicrobial
OXOLINIC ACID	antimicrobial
PHTHALYLSULFATHIAZOLE	antimicrobial
PIPEMIDIC ACID	antimicrobial
SUCCINYL SULFATHIAZOLE	antimicrobial
COLCHICINE	antimitotic, antigout agent
PIRACETAM	antinauseant
1,2-DIMETHYLHYDRAZINE HYDROCHLORIDE	antineoplastic
ACIVICIN	antineoplastic
ACLACINOMYCIN A1	antineoplastic
ALTRETAMINE	antineoplastic
AMINOLEVULINIC ACID HYDROCHLORIDE	antineoplastic
BETULINIC ACID	antineoplastic
BLEOMYCIN (bleomycin B2 shown)	antineoplastic
CAMPTOTHECIN	antineoplastic
DACARBAZINE	antineoplastic
MITOMYCIN C	antineoplastic
MITOXANTHRONE HYDROCHLORIDE	antineoplastic
MYCOPHENOLIC ACID	antineoplastic
PACLITAXEL	antineoplastic
SEMUSTINE	antineoplastic
CARMUSTINE	antineoplastic, alkylating agent
BUSULFAN	antineoplastic, alkylating agent
CHLORAMBUCIL	antineoplastic, alkylating agent
CYCLOPHOSPHAMIDE HYDRATE	antineoplastic, alkylating agent
MECHLORETHAMINE	antineoplastic, alkylating agent
MELPHALAN	antineoplastic, alkylating agent
PIPOBROMAN	antineoplastic, alkylating agent
STREPTOZOSIN	antineoplastic, alkylating agent
THIODIGLYCOL	antineoplastic, alkylating agent
THIOTEPA	antineoplastic, alkylating agent
AZASERINE	antineoplastic, amino acid antagonist

JUGLONE	antineoplastic, antifungal
GELDANAMYCIN	antineoplastic, antifungal, antiprotozoal
CELASTROL	antineoplastic, antiinflammatory, NO synthesis inhibitor, chaperone stimulant
FLOXURIDINE	antineoplastic, antimetabolite
SANGUINARINE SULFATE	antineoplastic, antiplaque agent
PUROMYCIN HYDROCHLORIDE	antineoplastic, antiprotozoal
CYTARABINE	antineoplastic, antiviral, antimetabolite
CARBOPLATIN	antineoplastic, convulsant
CISPLATIN	antineoplastic, convulsant
TRICHLORMETHINE	antineoplastic, cytotoxic
URETHANE	antineoplastic, cytotoxic
ETANIDAZOLE	antineoplastic, hypoxic cell radiosensitizer
PODOFILOX	antineoplastic, inhibits microtubule assembly, and human DNA topoisomerase II; antimitotic agent
HYDROXYUREA	antineoplastic, inhibits ribonucleoside diphosphate reductase
MONOCROTALINE	antineoplastic, insect sterilant
LEFUNAMIDE	antineoplastic, PDGF receptor blocker
MERCAPTOPURINE	antineoplastic, purine antimetabolite
THIOGUANINE	antineoplastic, purine antimetabolite
5-AZACYTIDINE	antineoplastic, pyrimidine antimetabolite
FLUOROURACIL	antineoplastic, pyrimidine antimetabolite
2,6-DI-t-BUTYL-4-METHYLPHENOL	antioxidant
ETHOXYQUIN	antioxidant
GLUTATHIONE	antioxidant
POMIFERIN	antioxidant
GUIAZULENE	antioxidant, antiinflammatory, hepatoprotectant
3-METHYL-1-PHENYL-2-PYRAZOLIN-5-ONE (MCI-186)	antioxidant, lipoxygenase inhibitor
EBSELEN	antioxidant, lipoxygenase inhibitor, inhibits oxidation of LDL
SELAMECTIN	antiparasitic, antimite
AVERMECTIN B1	antiparasitic
LEVODOPA	antiparkinsonian
ETHOPROPAZINE HYDROCHLORIDE	antiparkinsonian, anticholinergic
3-AMINOBENZAMIDE	antiproliferative, killer cell blocker
DINITOLMIDE	antiprotozoal
METRONIDAZOLE	antiprotozoal
RONIDAZOLE	antiprotozoal
TINIDAZOLE	antiprotozoal
ANISOMYCIN	antiprotozoal, antifungal, protein synthesis inhibitor
PENTAMIDINE ISETHIONATE	antiprotozoal, inhibits nucleic acid & protein synthesis
HOMIDIUM BROMIDE	antiprotozoal, intercalate with DNA
ACETARSOL	antiprotozoal. diethylamine salt as antiphilitic
TRIMEPRAZINE TARTRATE	antipruritic
ANTHRALIN	antipsoriatic

BERGAPTENE	antipsoriatic, antiinflammatory
METHOXSALEN	antipsoriatic, pigmentation agent
CHLORPROTHIXENE HYDROCHLORIDE	antipsychotic
CLOZAPINE	antipsychotic
PERCIAZINE	antipsychotic
PERPHENAZINE	antipsychotic
PIMOZIDE	antipsychotic
PROMAZINE HYDROCHLORIDE	antipsychotic
SPIPERONE	antipsychotic
THIORIDAZINE HYDROCHLORIDE	antipsychotic
THIOTHIXENE	antipsychotic
TRIFLUOPERAZINE HYDROCHLORIDE	antipsychotic
TRIFLUPROMAZINE HYDROCHLORIDE	antipsychotic
AMINOPHENAZONE	antipyretic, analgesic
BERBERINE CHLORIDE	antipyretic, antimalarial
ERGOCALCIFEROL	antirachitic vitamin
DIPYROCETYL	antirheumatic, analgesic
RESORCINOL MONOACETATE	antiseborrheic, antipruritic
CETRIMONIUM BROMIDE	antiseptic
DEQUALINIUM CHLORIDE	antiseptic
CHLOROCRESOL	antiseptic (topical)
METHYLBENZETHONIUM CHLORIDE	antiseptic (topical)
BROXYQUINOLINE	antiseptic, disinfectant
RITANSERIN	antiserotonin
DROFENINE HYDROCHLORIDE	antispasmodic
ETHAVERINE HYDROCHLORIDE	antispasmodic
FLOPROPIONE	antispasmodic
PIPERIDOLATE HYDROCHLORIDE	antispasmodic
AMINOTHIAZOLE	antithyroid agent
METHYLTHIOURACIL	antithyroid agent
ASARININ (-)	antitubercular
CARBETAPENTANE CITRATE	antitussive
CLOPERASTINE HYDROCHLORIDE	antitussive
DEXTROMETHORPHAN HYDROBROMIDE	antitussive
DROPROPIZINE	antitussive
NOSCAPINE HYDROCHLORIDE	antitussive
ENOXOLONE	antitussive, antiinflammatory, antibacterial
ACETOXOLONE	antiulcer
NARINGENIN	antiulcer, gibberellin antagonist
CIMETIDINE	antiulcerative
LANSOPRAZOLE	antiulcerative
PIRENZEPINE HYDROCHLORIDE	antiulcerative
ACETYL-L-LEUCINE	antivertigo

ACYCLOVIR	antiviral
EDOXUDINE	antiviral
FAMCICLOVIR	antiviral
FOSCARNET SODIUM	antiviral
RIBAVIRIN	antiviral
TILORONE	antiviral
TRIFLURIDINE	antiviral
BAICALEIN	antiviral (HIV)
AMANTADINE HYDROCHLORIDE	antiviral, antiparkinsonian; treatment of drug-induced extrapyramidal reactions
HYDROXYZINE PAMOATE	anxiolytic, antihistaminic
AMINOGLUTETHIMIDE	aromatase inhibitor, antineoplastic, testosterone suppressant
KINETIN	auxin, plant growth regulator, plant cell division promotor
PRACTOLOL	beta adrenergic agonist
PRONETALOL HYDROCHLORIDE	beta adrenergic agonist, antiarrhythmic
ATENOLOL	beta adrenergic blocker
FENOTEROL HYDROBROMIDE	betaadrenergic agonist
TERBUTALINE HEMISULFATE	betaadrenergic agonist, bronchodilator
ALPRENOLOL	betaadrenergic blocker
NADOLOL	betaadrenergic blocker
TIMOLOL MALEATE	betaadrenergic blocker
LYSYLTRYPTOPHANYL-LYSINE ACETATE	binds to DNA
DYPHYLLINE	bronchodilator
ISOPROTERENOL HYDROCHLORIDE	bronchodilator
METAPROTERENOL	bronchodilator
THEOPHYLLINE	bronchodilator
IPRATROPIUM BROMIDE	bronchodilator, antiarrhythmic
TULOBUTEROL	bronchodilator, beta adrenergic agonist
CLENBUTEROL HYDROCHLORIDE	bronchodilator, beta2 adrenergic agonist
EPHEDRINE (1R,2S) HYDROCHLORIDE	bronchodilator, cardiac stimulant
RACEPHEDRINE HYDROCHLORIDE	bronchodilator, decongestant
ALBUTEROL	bronchodilator, tocolytic
LOPERAMIDE HYDROCHLORIDE	Ca channel blocker
N-AMINOHEXYL-5-CHLORO-1-NAPHTHALENESULFONAMIDE HYDROCHLORIDE (W-7 HCl)	calmodulin antagonist, PDE and kinase inhibitor
HESPERIDIN	capillary protectant
QUERCETIN	capillary protectant
METHAZOLAMIDE	carbonic anhydrase inhibitor
ACETAZOLAMIDE	carbonic anhydrase inhibitor, diuretic, antiglaucoma
AMRINONE	cardiac stimulant
DIGOXIN	cardiac stimulant
DIGITOXIN	cardiotonic
DOBUTAMINE HYDROCHLORIDE	cardiotonic
LANATOSIDE C	cardiotonic

PERUVOSIDE	cardiotonic
STROPHANTHIDIN	cardiotonic
SULMAZOLE	cardiotonic
DOPAMINE HYDROCHLORIDE	cardiotonic, antihypotensive
HYDRASTININE HYDROCHLORIDE	cardiotonic, uterine hemostatic
COENZYME Q10	cardiovascular agent
3,5-DINITROCATECHOL (OR-486)	catechol O-methyltransferase inhibitor
BISACODYL	cathartic
DANTRON	cathartic
PHENOLPHTHALEIN	cathartic
ALOIN	cathartic, laxative
STRYCHNINE	central stimulant
EBURNAMONINE	cerebrotonic, muscle stimulant
ZAPRINAST	cGMP phosphodiesterase inhibitor
CHLOROXINE	chelating agent
GLUCONOLACTONE	chelating agent
DIMERCAPTOPROPANOL	chelating agent (As, Au, Hg)
CALCEIN	chelating agent (Ca, Mg)
PENICILLAMINE	chelating agent (Cu), antirheumatic
DEFEROXAMINE MESYLATE	chelating agent (Fe & Al)
TRISODIUM ETHYLENEDIAMINE TETRACETATE	chelating agent, antioxidant
KOJIC ACID	chelator, antibacterial, skin whitening agent
METHIONYL-LEUCYLPHENYLALANINE ACETATE	chemotactic peptide
N-FORMYLMETHIONYLALANINE	chemotactic peptide
N-FORMYLMETHIONYL-LEUCYLPHENYLALANINE	chemotactic peptide
5-NITRO-2-PHENYLPROPYLAMINOBENZOIC ACID [NPPB]	chloride channel blocker
SODIUM DEHYDROCHOLATE	choleretic
CHOLINE CHLORIDE	choleretic, lipotropic, hepatoprotectant
ACECLIDINE HYDROCHLORIDE	cholinergic
ACETYLCARNITINE	cholinergic
BETHANECHOL CHLORIDE	cholinergic
NEOSTIGMINE BROMIDE	cholinergic
PYRIDOSTIGMINE BROMIDE	cholinergic
PHYSOSTIGMINE SALICYLATE	cholinergic, anticholinesterase, miotic
METHACHOLINE CHLORIDE	cholinergic, diagnostic aid
CARBACHOL	cholinergic, miotic
HYDROXYTACRINE MALEATE	cholinesterase inhibitor, antiparkinsonian
PRALIDOXIME MESYLATE	cholinesterase reactivator
ACETYL TYROSINE ETHYL ESTER	chymotrypsin substrate
CAFFEINE	CNS stimulant
HARMALINE	CNS stimulant, antiparkinsonian agent
AMPROLIUM	coccidiostat
RUTILANTINONE	coccidiostat

SODIUM beta-NICOTINAMIDE ADENINE DINUCLEOTIDE PHOSPHATE	cofactor in aryl & steroidal hydroxylation
ANIRACETAM	cognitive enhancer
MEDROXYPROGESTERONE ACETATE	contraceptive
PICROTOXININ	convulsant, GABA receptor antagonist, ichthyotoxin
DIPYRIDAMOLE	coronary vasodilator
FENDILINE HYDROCHLORIDE	coronary vasodilator
PERHEXILINE MALEATE	coronary vasodilator
ROFECOXIB	COX2 inhibitor, antiinflammatory, antiarthritic
PROADIFEN HYDROCHLORIDE	cytochrome P450 inhibitor, Ca antagonist
BENSERAZIDE HYDROCHLORIDE	decarboxylase inhibitor
CARBIDOPA	decarboxylase inhibitor, antiparkinsonism
PSEUDOEPHEDRINE HYDROCHLORIDE	decongestant
1S,2R-PHENYLPROPANOLAMINE HYDROCHLORIDE	decongestant, anorexic
MIMOSINE	depilatory agent
ROSOLIC ACID	diagnostic aid
QUINOLINIC ACID	differentiates between cerebral and forebrain NMDA receptors
DIPROTIN A	dipeptidyl peptidase inhibitor, HIV inhibitor
CRESOL	disinfectant
HALAZONE	disinfectant
OXYQUINOLINE	disinfectant
BENDROFUMETHIAZIDE	diuretic
BUMETANIDE	diuretic
CHRYSIN	diuretic
CLOPAMIDE	diuretic
CYCLOTHIAZIDE	diuretic
ETHACRYNIC ACID	diuretic
HYDROCHLOROTHIAZIDE	diuretic
TRIAMTERENE	diuretic
UREA	diuretic
BENZTHIAZIDE	diuretic, antihypertensive
CHLOROTHIAZIDE	diuretic, antihypertensive
CHLORTHALIDONE	diuretic, antihypertensive
FUROSEMIDE	diuretic, antihypertensive
INDAPAMIDE	diuretic, antihypertensive
METOLAZONE	diuretic, antihypertensive
TRICHLORMETHIAZIDE	diuretic, antihypertensive
THEOBROMINE	diuretic, bronchodilator, cardiotonic
PERGOLIDE MESYLATE	dopamine receptor agonist
SULPIRIDE	dopamine receptor antagonist, antipsychotic
APOMORPHINE HYDROCHLORIDE	emetic
CHLOROTRIANISENE	estrogen
DIENESTROL	estrogen

DIETHYLSТИЛБЕСТРОЛ	estrogen
EQUILIN	estrogen
ESTRADIOL	estrogen
ESTRADIOL CYPIONATE	estrogen
ESTRADIOL PROPIONATE	estrogen
ESTRADIOL VALERATE	estrogen
ESTRADIOL-3-SULFATE, SODIUM SALT	estrogen
ESTRIOL	estrogen
ESTRIOL BENZYL ETHER	estrogen
ESTRONE	estrogen
ESTRONE ACETATE	estrogen
ESTRONE HEMISUCCINATE	estrogen
HEXESTROL	estrogen, antineoplastic (hormonal)
ETHINYL ESTRADIOL	estrogen, plus progestogen as oral contraceptive
ACETYLGLUTAMIC ACID	excitatory aminoacid
AMBROXOL HYDROCHLORIDE	expectorant
BROMHEXINE HYDROCHLORIDE	expectorant
GUAIFENESIN	expectorant
SOLASODINE	F11
PHENYLMERCURIC ACETATE	fungicide
BICUCULLINE (+)	GABA antagonist
PIMPINELLIN	GABA receptor antagonist, phototoxin
NIPECOTIC ACID	GABA uptake inhibitor
GABOXADOL HYDROCHLORIDE	GABAa agonist, GABAc antagonist
PICROTIN	GABAa receptor antagonist
PREGNENOLONE	glucocorticoid, antiinflammatory
CORTISONE ACETATE	glucocorticoid
DEXAMETHASONE	glucocorticoid
HYDROCORTISONE HEMISUCCINATE	glucocorticoid
HYDROCORTISONE SODIUM PHOSPHATE	glucocorticoid
MEDRYSONE	glucocorticoid
METHYLPREDNISOLONE	glucocorticoid
PREDNISOLONE	glucocorticoid
PREDNISOLONE ACETATE	glucocorticoid
PREDNISONE	glucocorticoid
TRIAMCINOLONE	glucocorticoid
AMCINONIDE	glucocorticoid, antiinflammatory
BETAMETHASONE	glucocorticoid, antiinflammatory
BETAMETHASONE 17,21-DIPROPIONATE	glucocorticoid, antiinflammatory
CLOBETASOL PROPIONATE	glucocorticoid, antiinflammatory
DEXAMETHASONE ACETATE	glucocorticoid, antiinflammatory
DEXAMETHASONE SODIUM PHOSPHATE	glucocorticoid, antiinflammatory
DIFLUCORTOLONE PIVALATE	glucocorticoid, antiinflammatory

FLUMETHAZONE PIVALATE	glucocorticoid, antiinflammatory
FLUOCINOLONE ACETONIDE	glucocorticoid, antiinflammatory
FLUOROMETHOLONE	glucocorticoid, antiinflammatory
HALCINONIDE	glucocorticoid, antiinflammatory
HYDROCORTISONE	glucocorticoid, antiinflammatory
HYDROCORTISONE ACETATE	glucocorticoid, antiinflammatory
HYDROCORTISONE BUTYRATE	glucocorticoid, antiinflammatory
CLOMIPHENE CITRATE	gonad stimulating principle
HISTAMINE DIHYDROCHLORIDE	H receptor agonist
CINNARAZINE	H1 antihistamine
FLUFENAZINE HYDROCHLORIDE	H1 antihistamine
LORATADINE	H1 antihistamine
MEBHYDROLIN NAPHTHALENESULFONATE	H1 antihistamine
METHAPYRILENE HYDROCHLORIDE	H1 antihistamine
PIMETHIXENE MALEATE	H1 antihistamine
TERFENADINE	H1 antihistamine, nonsedating
FAMOTIDINE	H2 antihistamine
RANITIDINE	H2 antihistamine
FOLIC ACID	hematopoietic vitamin
AMINOCAPROIC ACID	hemostatic
TRANEXAMIC ACID	hemostatic
ELLAGIC ACID	hemostatic, antineoplastic, antimutagenic
CIANIDANOL	hepatoprotectant
CITIOLONE	hepatoprotectant
PROTOPORPHYRIN IX	hepatoprotectant
THIOCTIC ACID	hepatoprotectant
CYSTAMINE DIHYDROCHLORIDE	hepatoprotectant, radioprotectant
THALIDOMIDE	hypnotic
PYRITHYLDIONE	hypnotic, sedative
LEVAMISOLE HYDROCHLORIDE	immunomodulator
AMIPRILOSE	immunomodulator, antiinflammatory
CYCLOSPORINE	immunosuppressant
MIZORIBINE	immunosuppressant
AZATHIOPRINE	immunosuppressant, antineoplastic, antirheumatic
alpha-CYANO-3-HYDROXYCINNAMIC ACID	inhibit mitochondrial pyruvate transport
alpha-CYANO-4-HYDROXYCINNAMIC ACID	inhibitor of mitochondrial pyruvate transport
BRETYLIUM TOSYLATE	inhibitor of norepinephrine release
CYCLOPIAZONIC ACID	inhibits endoplasmic reticulum Ca ATPase
ACETYL SEROTONIN	inhibits hydroxyindole-O-methyltransferase
PERILLIC ACID (-)	inhibits posttranslational cys isoprenylation, blocks G-protein
EMETINE	inhibits RNA, DNA and protein synthesis
DEET	insect repellent
DIELDRIN	insecticide

LINDANE	insecticide
ANABASINE HYDROCHLORIDE	insecticide
MITOTANE	insecticide, antineoplastic
p-CHLOROPHENYLALANINE	Irreversible inhibitor of tryptophan hydroxylase
AMINOPYRIDINE	Kchannel blocker
DIBENZOTHIOPHENE	keratolytic
SODIUM SALICYLATE	keratolytic
TETROQUINONE	keratolytic
TRETINON	keratolytic
RESORCINOL	keratolytic, antiseborheic
LACTULOSE	laxative
NORDIHYDROGUARETIC ACID	lipoxygenase inhibitor, antioxidant
GOSSYPOL-ACETIC ACID COMPLEX	male contraceptive
HARMOL HYDROCHLORIDE	MAO inhibitor
N- (2-AMINOETHYL)-4-CHLOROBENZAMIDE (RO-16-6491)	MAOb inhibitor
TRIOXALEN	melanizing agent, antipsoriatic
beta-ESCI	membrane permeabilizer
ANDROSTERONE SODIUM SULFATE	menstrual regulation
DESOXYCORTICOSTERONE ACETATE	mineralocorticoid
FLUDROCORTISONE ACETATE	mineralocorticoid
ISOPilocarpine NITRATE	miotic
IPRONIAZID SULFATE	monoamine oxidase inhibitor, antidepressant
NALTREXONE HYDROCHLORIDE	morphine antagonist
ACETYLCYSTEINE	mucolytic
MECYSTEINE HYDROCHLORIDE	mucolytic
MESNA	mucolytic
OXOTREMORINE SESQUIFUMARATE	muscarinic agonist
TOLTERODINE HYDROCHLORIDE	muscarinic receptor antagonist
BACLOFEN	muscle relaxant (skeletal)
CARISOPRODOL	muscle relaxant (skeletal)
CHLORZOXAZONE	muscle relaxant (skeletal)
CYCLOBENZAPRINE HYDROCHLORIDE	muscle relaxant (skeletal)
DANTROLENE SODIUM	muscle relaxant (skeletal)
GALLAMINE	muscle relaxant (skeletal)
MEMANTINE HYDROCHLORIDE	muscle relaxant (skeletal)
MEPHENESIN	muscle relaxant (skeletal)
METHOCARBAMOL	muscle relaxant (skeletal)
TOLPERISONE HYDROCHLORIDE	muscle relaxant (skeletal)
ORPHENADRINE CITRATE	muscle relaxant (skeletal), antihistaminic
MEBEVERINE HYDROCHLORIDE	muscle relaxant (smooth)
RITODRINE HYDROCHLORIDE	muscle relaxant (smooth)
PAPAVERINE HYDROCHLORIDE	muscle relaxant (smooth), cerebral vasodilator
CYCLOPENTOLATE HYDROCHLORIDE	mydriatic

PHENYLEPHRINE HYDROCHLORIDE	mydriatic, decongestant
AMILORIDE HYDROCHLORIDE	Na <sup>+</sup> channel inhibitor, diuretic
NALOXONE HYDROCHLORIDE	narcotic antagonist
CYCLOLEUCYLGLYCINE	narcotic induced dopamine receptor sensitivity inhibitor
DROPERIDOL	neuroleptic
TIAPRIDE HYDROCHLORIDE	neuroleptic
SPAGLUMIC ACID	neurotransmitter, mgluR3 receptors
NICOTINE DITARTRATE	nicotinyl acetylcholine receptor agonist, ectoparasiticide
N-METHYL-D-ASPARTIC ACID (NMDA)	NMDA agonist
CYCLOEUCINE	NMDA receptor antagonist (gly)
CANAVANINE	NO synthase inhibitor
N (g)-NITRO-L-ARGININE	NO synthase inhibitor
SCOPOLETIN	NO synthesis (inducible) inhibitor, anticoagulant
TANNIC ACID	nonspecific enzyme/receptor blocker
MECLOFENOXATE HYDROCHLORIDE	nootropic
KYNURENIC ACID	nutritient in vitamin B deficiency diseases
LEUCINE ENKEPHALIN	opioid neuromodulator
NORETHINDRONE ACETATE	Oral contraceptive (in combination with estrogen)
SPERMIDINE TRIHYDROCHLORIDE	ornithine decarboxylase inhibitor
PUTRESCINE DIHYDROCHLORIDE	ornithine decarboxylase inhibitor, cell growth factor
ATRACTYLOSIDE POTASSIUM	oxidative phosphorylation inhibitor
METHYLERGONOVINE MALEATE	oxytocic
SPARTEINE SULFATE	oxytocic
MORIN	P450 and ATPase inhibitor
SULOCTIDIL	peripheral vasodilator
7-HYDROXYETHYLTHEOPHYLLINE	phosphodiesterase inhibitor
CITROPTEN	photosensitizing agent
BIOCHANIN A	phytoestrogen
DAIDZEIN	phytoestrogen
CLOPIDOGREL SULFATE	platelet aggregation inhibitor
ETHISTERONE	progestogen
HYDROXYPROGESTERONE CAPROATE	progestogen
NORETHINDRONE	progestogen
NORGESTREL	progestogen
PROGESTERONE	progestogen
NORETHYNODREL	progestogen, in combination with estrogen as oral contraceptive
BROMOCRIPTINE MESYLATE	prolactin inhibitor, antiparkinsonian
STEAROYL CARNITINE CHLORIDE	protein kinase C inhibitor
CYCLOHEXIMIDE	protein synthesis inhibitor
MENADIONE	prothrombogenic agent
beta-CAROTENE	provitamin A
RETINYL PALMITATE	provitamin, antixerophthalmic
FIPEXIDE HYDROCHLORIDE	psychostimulant

URIDINE TRIPHOSPHATE TRISODIUM	psychostimulant
MINAPRINE HYDROCHLORIDE	psychotropic
TRYPTAMINE	psychotropic
IOPANIC ACID	radioopaque agent
CYCLOCREATINE	regulator of creatine biosynthesis
AMINOHIPPURIC ACID	renal function diagnosis
ZIDOVUDINE [AZT]	RT transferase inhibitor, antiviral
BENZYL BENZOATE	scabicide
PROPIOMAZINE MALEATE	sedative, hypnotic
MELATONIN	sleep induction, modifies circadian rhythm
PIPENZOLATE BROMIDE	spasmolytic
MEFEXAMIDE	stimulant (central)
NEOHESPERIDIN DIHYDROCHALCONE	sweetener
SACCHARIN	sweetener
LIOTHYRONINE SODIUM	thyroid hormone
PARACHLOROPHENOL	topical antibacterial (topical)
TYROTHRICIN	topical antibacterial (topical)
DIOXYBENZONE	ultraviolet screen
OXYBENZONE	ultraviolet screen
POTASSIUM p-AMINOBENZOATE	ultraviolet screen
ACETOHYDROXAMIC ACID	urease inhibitor, antiurolithic, antibacterial
PROBENECID	uricosuric
SULFINPYRAZONE	uricosuric
1R,9S-HYDRASTINE	uterine hemostatic, antiseptic
CHROMOCARB	vascular protectant
DIOSMIN	vascular protectant
RUTOSIDE (rutin)	vascular protectant
7,8-DIHYDROXYFLAVONE	vascular protectant, antihaemorrhagic
LEVONORDEFRIN	vasoconstrictor
MEPHENTERMINE SULFATE	vasoconstrictor
BETAHISTINE HYDROCHLORIDE	vasodilator
BUCLADESINE	vasodilator
FLUNARIZINE HYDROCHLORIDE	vasodilator
HEPTAMINOL HYDROCHLORIDE	vasodilator
ISOXSUPRINE HYDROCHLORIDE	vasodilator
KHELLIN	vasodilator
NAFRONYL OXALATE	vasodilator
NICARDIPINE HYDROCHLORIDE	vasodilator
NICERGOLINE	vasodilator
NICOTINYL TARTRATE	vasodilator
PENTOXIFYLLINE	vasodilator
VINCAMINE	vasodilator
NYLIDRIN HYDROCHLORIDE	vasodilator (peripheral)

ADENOSINE PHOSPHATE	vasodilator, neuromodulator
BIOTIN	vitamin B complex
BENFOTIAMINE	vitamin B1
COBALAMINE	vitamin B12
alpha-TOCHOPHEROL	vitamin E
alpha-TOCHOPHERYL ACETATE	vitamin E
RETINYL ACETATE	vitamin precursor
ACEXAMIC ACID	wound healing agent
ALLANTOIN	wound healing agent
18alpha-GLYCRRHETINIC ACID	
ACETYLPHENYLALANINE	
ALANYL-dl-LEUCINE	
ALANYL-dl-PHENYLALANINE	
ARCAINE SULFATE	
BATYL ALCOHOL	
CREATININE	
DIHYDROSAMIDIN	
FELAMIDIN	
HECOGENIN	
HESPERETIN	
NEROL	
O-BENZYL-L-SERINE	
OSTHOL	
PEUCEDANIN	
QUINALIZARIN	
URSINIC ACID	
XANTHURENIC ACID	