

International Nonproprietary Names for Pharmaceutical Substances

Notice is hereby given that, in accordance with article 3 of the Procedure for the Selection of Recommended International Nonproprietary Names for Pharmaceutical Substances*, the following names are selected as Recommended International Nonproprietary Names. The inclusion of a name in the lists of Recommended International Nonproprietary Names does not imply any recommendation of the use of the substance in medicine or pharmacy.

Recommended International Nonproprietary Names (Rec. INN): List 31

* Lists of proposed (1–58) and recommended (1–27) international nonproprietary names can be found in Cumulative List No. 7, 1988.

<i>Recommended International Nonproprietary Name (Latin, English)</i>	<i>Chemical Name or Description and Molecular Formula</i>
abanoquilum abanoquil	4-amino-2-(3,4-dihydro-6,7-dimethoxy-2(1 <i>H</i>)-isoquinolyl)-6,7-dimethoxy-quinoline $C_{22}H_{25}N_3O_4$
acadesinum acadesine	5-amino-1- β -D-ribofuranosylimidazole-4-carboxamide $C_9H_{14}N_4O_5$
acidum gadobenicum gadobenic acid	dihydrogen [(\pm)-4-carboxy-5,8,11-tris(carboxymethyl)-1-phenyl-2-oxa-5,8,11-triazatridecan-13-oato(5-)]gadolate(2-) $C_{22}H_{28}GdN_3O_{11}$
acidum penteticum pentetic acid	<i>N,N</i> -bis[2-[bis(carboxymethyl)amino]ethyl]glycine $C_{14}H_{23}N_3O_{10}$
adaprololum adaprolol	2-(1-adamantyl)ethyl (\pm)-[<i>p</i> -[2-hydroxy-3-(isopropylamino)-propoxy]phenyl]acetate $C_{26}H_{39}NO_4$

* Official Records of the World Health Organization, 1955, **60**, 3 (Resolution EB15.R7); 1969, **173**, 10 (Resolution EB43.R9).

*Recommended International
Nonproprietary Name
(Latin, English)*

Chemical Name or Description and Molecular Formula

adosopinum adosopine	<i>N</i> -(5,6-dihydro-5-methyl-6,11-dioxo-10-morphanthridinyl)acetamide $C_{17}H_{14}N_2O_3$
adozelesinum adozelesin	(7 <i>b</i> ,8 <i>a</i> ,8 <i>S</i>)- <i>N</i> -[2-[(4,5,8,8 <i>a</i> -tetrahydro-7-methyl-4-oxocyclopropa[<i>c</i>]pyrrolo-[3,2- <i>e</i>]indol-2(1 <i>H</i>)-yl)carbonyl]indol-5-yl]-2-benzofurancarboxamide $C_{30}H_{22}N_4O_4$
afalaninum afalanine	<i>N</i> -acetyl-3-phenyl-DL-alanine or <i>N</i> -acetyl-DL-phenylalanine $C_{11}H_{13}NO_3$
aldesleukinum aldesleukin	125-L-serine-2-133-interleukin 2 (human reduced) $C_{890}H_{1115}N_{177}O_{203}S_8$
alentemolum alentemol	(+)-2-(dipropylamino)-2,3-dihydrophenalen-5-ol $C_{19}H_{23}NO$
almokalantum almokalant	(±)- <i>p</i> -[3-[ethyl[3-(propylsulfinyl)propyl]amino]-2-hydroxypropoxy]benzo- nitrile $C_{18}H_{26}N_2O_3S$
ameltolidum ameltolide	4-amino-2',6'-benzoxylidide $C_{15}H_{16}N_2O$
angiotensinum II angiotensin II	5-L-isoleucineangiotensin II The species specificity should be indicated in brackets after the name. $C_{50}H_{71}N_{13}O_{12}$
aprikalimum aprikalim	(-)-(2 <i>R</i> *,2 <i>R</i> *)-tetrahydro- <i>N</i> -methyl-2-(3-pyridyl)thio-2 <i>H</i> -thiopyran- 2-carboxamide 1-oxide $C_{12}H_{16}N_2OS_2$
aprosulatum natricum aprosulate sodium	<i>N,N'</i> -trimethylenebis[actobionamide] hexadecakis(sodium sulfate) (ester) $C_{27}H_{34}N_2Na_{16}O_{70}S_{16}$
arbutaminum arbutamine	(<i>R</i>)-3,4-dihydroxy- α -[[4-(<i>p</i> -hydroxyphenyl)butyl]amino]methyl]benzyl alcohol $C_{18}H_{23}NO_4$
asobamastum asobamast	2-ethoxyethyl [4-(3-methyl-5-isoxazolyl)-2-thiazolyl]oxamate $C_{13}H_{15}N_3O_5S$
avizafonum avizafone	2'-benzoyl-4'-chloro-2-[(<i>S</i>)-2,6-diaminohexanamido]- <i>N</i> -methylacetanilide $C_{22}H_{27}ClN_4O_3$
barnidipinum barnidipine	(+)-(3' <i>S</i> ,4 <i>S</i>)-1-benzyl-3-pyrrolidinyl methyl 1,4-dihydro-2,6-dimethyl- 4-(<i>m</i> -nitrophenyl)-3,5-pyridinedicarboxylate $C_{27}H_{29}N_3O_6$

*Recommended International
Nonproprietary Name
(Latin, English)*

Chemical Name or Description and Molecular Formula

batelapinum batelapine	2-methyl-5-(4-methyl-1-piperazinyl)-11 <i>H</i> -s-triazolo[1,5- <i>c</i>][1,3]benzodiazepine C ₁₈ H ₂₀ N ₆
bemesetronum bemesetron	<i>endo</i> -8-methyl-8-azabicyclo[3.2.1]oct-3-yl 3,5-dichlorobenzoate C ₁₉ H ₁₇ Cl ₂ NO ₂
berlafenonum berlafenone	(±)-1-(2-biphenyloxy)-3-(<i>tert</i> -butylamino)-2-propanol C ₁₉ H ₂₅ NO ₂
bertosamilum bertosamil	3'-isobutyl-7'-isopropylspiro[cyclohexane-1,9'-[3,7]diazabicyclo[3.3.1]nonane] C ₁₉ H ₃₆ N ₂
betamipronum betamipron	<i>N</i> -benzoyl-β-alanine C ₁₀ H ₁₁ NO ₃
chloridismidum chloridismide	(±)-α-(<i>o</i> -chlorophenyl)-α-[2-(<i>N</i> -isopropylacetamido)ethyl]-1-piperidine- butyramide C ₂₂ H ₃₄ ClN ₃ O ₂
bimakalimum bimakalim	2,2-dimethyl-4-(2-oxo-1(2 <i>H</i>)-pyridyl)-2 <i>H</i> -1-benzopyran-6-carbonitrile C ₁₇ H ₁₄ N ₂ O ₂
bindaritum bindarit	2-[(1-benzyl-1 <i>H</i> -indazol-3-yl)methoxy]-2-methylpropionic acid C ₁₉ H ₂₀ N ₂ O ₃
brinazaronium brinazarone	<i>p</i> -[3-(<i>tert</i> -butylamino)propoxy]phenyl 2-isopropyl-3-indolizinyll ketone C ₂₉ H ₃₂ N ₂ O ₂
butixocortum butixocort	11β,17-dihydroxy-21-mercaptopregn-4-ene-3,20-dione 17-butyrate C ₂₅ H ₃₆ O ₅ S
caldiamidum caldiamide	hydrogen [N,N-bis[2-[(carboxymethyl)[(methylcarbamoyl)methyl]- amino]ethyl]glycinato(3-)]calcate[1-] C ₁₈ H ₂₇ CaN ₅ O ₈
carperitidum carperitide	L-seryl-L-leucyl-L-arginyl-L-arginyl-L-seryl-L-seryl-L-cysteinyl- L-phenylalanylglycylglycyl-L-arginyl-L-methionyl-L-aspartyl-L-arginyl- L-isoleucylglycyl-L-alanyl-L-glutaminyll-L-serylglycyl-L-leucylglycyl-L-cysteinyl- L-asparaginyll-L-seryl-L-phenylalanyl-L-arginyl-L-tyrosine cyclic(7→23)-disulfide C ₁₂₇ H ₂₀₃ N ₄₅ O ₃₃ S ₃
cefclidinum cefclidin	(+)-1-[[[6 <i>R</i> ,7 <i>R</i>]-7-[2-(5-amino-1,2,4-thiadiazol-3-yl)glyoxylamido]-2-carboxy- 8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-en-3-yl]methyl]-4-carbamoylquinuclidini- um hydroxide, inner salt, 7 ² -(<i>Z</i>)-(O-methyloxime) C ₂₁ H ₂₆ N ₈ O ₆ S ₂
cefdaloximum cefdaloxime	(+)-(6 <i>R</i> ,7 <i>R</i>)-7-[2-(2-amino-4-thiazolyl)glyoxylamido]-3-(methoxymethyl)- 8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid, 7 ² -(<i>Z</i>)-oxime C ₁₄ H ₁₅ N ₅ O ₆ S ₂

*Recommended International
Nonproprietary Name
(Latin, English)*

Chemical Name or Description and Molecular Formula

cefetecolum cefetecol	(6 <i>R</i> ,7 <i>R</i>)-7-[2-(2-amino-4-thiazolyl)glyoxylamido]-8-oxo-5-thia-1-aza-bicyclo[4.2.0]oct-2-ene-2-carboxylic acid, 7 ² -(<i>Z</i>)-[<i>O</i> -[(<i>S</i>)- α -carboxy-3,4-dihydroxybenzyl]oxime] $C_{20}H_{17}N_5O_9S_2$
ceronaprilum ceronapril	1-[(2 <i>S</i>)-6-amino-2-hydroxyhexanoyl]-L-proline. hydrogen (4-phenyl-butyl)phosphonate (ester) $C_{21}H_{33}N_2O_6P$
cetrorelixum cetrorelix	<i>N</i> -acetyl-3-(2-naphthyl)-D-alanyl- <i>p</i> -chloro-D-phenylalanyl-3-(3-pyridyl)-D-alanyl-L-seryl-L-tyrosyl- <i>N</i> ⁵ -carbamoyl-D-ornithyl-L-leucyl-L-arginyl-L-prolyl-D-alaninamide $C_{70}H_{92}ClN_{17}O_{14}$
cilobradinum cilobradine	(\pm)-3-[[1-(3,4-dimethoxyphenethyl)-3-piperidyl]methyl]-1,3,4,5-tetrahydro-7,8-dimethoxy-2 <i>H</i> -3-benzazepin-2-one $C_{28}H_{38}N_2O_5$
colfoscerili palmitas colfosceril palmitate	choline hydroxide, dihydrogen phosphate, inner salt, ester with L-1,2-dipalmitin or 1,2-dipalmitoyl- <i>sn</i> -glycero-3-phosphocholine $C_{40}H_{80}NO_4P$
corticoirelinum corticoirelin	corticotropin-releasing factor; the species specificity should be indicated in brackets after the name e.g.: corticoirelin (human) corticoirelin (ovine) $C_{208}H_{344}N_{60}O_{63}S_2$ $C_{205}H_{339}N_{59}O_{63}S$
crilvastatinum crilvastatin	5-oxo-L-proline, (\pm)- <i>cis</i> -3,3,5-trimethylcyclohexyl ester $C_{14}H_{23}NO_3$
crospovidonum crospovidone	1-vinyl-2-pyrrolidinone polymer, crosslinked (C_4H_5NO) _n
dacopafantum dacopafant	(3 <i>R</i>)-3-(3-pyridyl)-1 <i>H</i> ,3 <i>H</i> -pyrrolo[1,2- <i>c</i>]thiazole-7-carboxamide $C_{12}H_{11}N_3OS$
dalfopristinum dalfopristin	(3 <i>R</i> ,4 <i>R</i> ,5 <i>E</i> ,10 <i>E</i> ,12 <i>E</i> ,14 <i>S</i> ,26 <i>R</i> ,26 <i>aS</i>)-26-[[2-(diethylamino)ethyl]sulfonyl]-8,9,14,15,24,25,26,26 <i>a</i> -octahydro-14-hydroxy-3-isopropyl-4,12-dimethyl-3 <i>H</i> -21,18-nitrilo-1 <i>H</i> ,22 <i>H</i> -pyrrolo[2,1- <i>c</i>][1,8,4,19]dioxadiazacyclotetrasocine-1,7,16,22(4 <i>H</i> ,7 <i>H</i>)-tetrone $C_{34}H_{50}N_4O_9S$
dalteparinum natricum dalteparin sodium	Sodium salt of depolymerized heparin obtained by nitrous acid degradation of heparin from pork intestinal mucosa, the majority of the components have a 2- <i>O</i> -sulfo- α -L-idopyranosuronic acid structure at the non-reducing end and a 6- <i>O</i> -sulfo-2,5-anhydro-D-mannitol structure at the reducing end of their chain; the average relative molecular mass is about 5000, 90 per cent of which ranging between 2000 and 9000; the degree of sulfatation is 2 to 2,5 per disaccharidic unit.
dalvastatinum dalvastatin	(\pm)-(4 <i>R</i> [*] ,6 <i>S</i> [*])-6-[(<i>E</i>)-2-[2-(4-fluoro- <i>m</i> -tolyl)-4,4,6,6-tetramethyl-1-cyclohexen-1-yl]vinyl]tetrahydro-4-hydroxy-2 <i>H</i> -pyran-2-one $C_{24}H_{31}FO_3$

*Recommended International
Nonproprietary Name
(Latin, English)*

Chemical Name or Description and Molecular Formula

dexormaplatinum dexormaplatin	(+)- <i>trans</i> -tetrachloro(1,2-cyclohexanediamine)platinum $C_6H_{14}Cl_4N_2Pt$
didanosinum didanosine	2',3'-dideoxyinosine $C_{10}H_{12}N_4O_3$
diethyltoluamidum diethyltoluamide	<i>N,N</i> -diethyl- <i>m</i> -toluamide $C_{12}H_{17}NO$
dofetilidum dofetilide	β -[(<i>p</i> -methanesulfonamidophenethyl)methylamino]methanesulfono- <i>p</i> -phenetidine $C_{19}H_{27}N_3O_5S_2$
doramectinum doramectin	25-cyclohexyl-5- <i>O</i> -demethyl-25-de(1-methylpropyl)avermectin A_{14} or (2 <i>aE</i> ,4 <i>E</i> ,8 <i>E</i>)-(5' <i>S</i> ,6 <i>S</i> ,6' <i>R</i> ,7 <i>S</i> ,11 <i>R</i> ,13 <i>S</i> ,15 <i>S</i> ,17 <i>aR</i> ,20 <i>R</i> ,20 <i>aR</i> ,20 <i>bS</i>)-6'-cyclohexyl- 5',6,6',7,10,11,14,15,17 <i>a</i> ,20,20 <i>a</i> ,20 <i>b</i> -dodecahydro-20,20 <i>b</i> -dihydroxy-5'.6,8,19- tetramethyl-17-oxospiro[11,15-methano-2 <i>H</i> ,13 <i>H</i> ,17 <i>H</i> -furo- [4,3,2- <i>pq</i>][2,6]benzodioxacyclooctadecin-13,2'-[2 <i>H</i>]pyran]-7-yl 2,6-dideoxy-4- <i>O</i> -(2,6-dideoxy-3- <i>O</i> -methyl- α -L- <i>arabino</i> -hexopyranosyl)-3- <i>O</i> -methyl- α -L- <i>arabino</i> -hexopyranoside $C_{50}H_{74}O_{14}$
draflazinum draflazine	(\pm)-4'-amino-4-[5,5-bis(<i>p</i> -fluorophenyl)pentyl]-2-carbamoyl-2',6'-dichloro- 1-piperazineacetanilide $C_{30}H_{33}Cl_2F_2N_5O_2$
eberconazolum eberconazole	(\pm)-1-(2,4-dichloro-10,11-dihydro-5 <i>H</i> -dibenzo[<i>a,d</i>]cyclohepten-5-yl)imidazole $C_{18}H_{14}Cl_2N_2$
ecabetum ecabet	13-isopropyl-12-sulfopodocarpa-8,11,13-trien-15-oic acid $C_{20}H_{28}O_3S$
englitazonum englitazone	(-)-5-[[2 <i>R</i>]-2-benzyl-6-chromanyl)methyl]-2 4-thiazolidinedione $C_{20}H_{19}NO_3S$
enloplatinum enloplatin	<i>cis</i> -(1,1-cyclobutanedicarboxylato)[tetrahydro-4 <i>H</i> -pyran-4,4-bis(methyl- amine)]platinum $C_{13}H_{22}N_2O_5Pt$
eprobemidum eprobemide	<i>p</i> -chloro- <i>N</i> -(3-morpholinopropyl)benzamide $C_{14}H_{19}ClN_2O_2$

*Recommended International
Nonproprietary Name
(Latin, English)*

Chemical Name or Description and Molecular Formula

fadrozolum fadrozole	(±)- <i>p</i> -(5,6,7,8-tetrahydroimidazo[1,5- <i>a</i>]pyridin-5-yl)benzonitrile C ₁₄ H ₁₃ N ₃
fantofaronum fantofarone	1-[[<i>p</i> -[3-[(3,4-dimethoxyphenethyl)methylamino]propoxy]phenyl]-sulfonyl]-2-isopropylindolizine C ₁₃ H ₂₈ N ₂ O ₅ S
fasudilum fasudil	hexahydro-1-(5-isoquinolylsulfonyl)-1 <i>H</i> -1,4-diazepine C ₁₄ H ₁₇ N ₃ O ₂ S
filgrastimum filgrastim	<i>N</i> -L-methionylcolony-stimulating factor (human clone 1034) C ₈₄₅ H ₁₃₃₉ N ₂₂₃ O ₂₄₃ S ₉
fiosatridilum fiosatidil	isobutyl [2-(dimethylamino)ethyl][[<i>o</i> -(methylthio)phenyl]- <i>m</i> -(trifluoromethyl)benzyl]carbamoyl)methyl]carbamate C ₂₆ H ₃₄ F ₃ N ₃ O ₃ S
flosulidum flosulide	<i>N</i> -[6-(2,4-difluorophenoxy)-1-oxo-5-indanyl]methanesulfonamide C ₁₆ H ₁₃ F ₂ NO ₄ S
fluorodopum (¹⁸ F) fluorodopa (¹⁸ F)	3-(2-fluoro- ¹⁸ F-4,5-dihydroxyphenyl)-L-alanine C ₉ H ₁₀ ¹⁸ FNO ₄
fomepizolum fomepizole	4-methylpyrazole C ₄ H ₆ N ₂
gadodiamidum gadodiamide	aqua[<i>N,N</i> -bis[2-[(carboxymethyl)[(methylcarbamoyl)methyl]amino]ethyl]-glycinato(3-)]gadolinium hydrate C ₁₆ H ₂₈ GdN ₅ O ₉ · × H ₂ O
gadoteridolum gadoteridol	(±)-[10-(2-hydroxypropyl)-1,4,7,10-tetraazacyclodecane-1,4,7-triacetato(3-)]gadolinium C ₁₇ H ₂₉ GdN ₄ O ₇
giracodazolum giracodazole	(<i>α</i> S)-2-amino- <i>α</i> -[(1 <i>S</i>)-2-amino-1-chloroethyl]imidazole-4-methanol C ₈ H ₁₁ ClN ₄ O
ibutilidum ibutilide	(±)-4'-[4-(ethylheptylamino)-1-hydroxybutyl]methanesulfonamide C ₂₀ H ₃₈ N ₂ O ₃ S
irinotecanum irinotecan	(+)-7-ethyl-10-hydroxycamptothecin 10-[1,4'-biperidine]-1'-carboxylate <i>or</i> (+)-[(<i>S</i>)-4,11-diethyl-4,9-dihydroxy-1 <i>H</i> -pyrano[3',4':6,7]indolizino[1,2- <i>b</i>]-quinoline-3,14(4 <i>H</i> ,12 <i>H</i>)-dione 9-[1,4'-bipiperidine]-1'-carboxylate C ₃₃ H ₃₈ N ₄ O ₆
isalsteinum isalsteine	(±)- <i>N</i> -[2-[(2-methyl-4-oxo-1,3-benzodioxan-2-yl)thio]propionyl]glycine C ₁₄ H ₁₅ NO ₆ S
lactitolum lactitol	4- <i>O</i> - <i>β</i> -D-galactopyranosyl-D-glucitol C ₁₂ H ₂₄ O ₁₁

lanreotidum lanreotide	3-(2-naphthyl)-D-alanyl-L-cysteinyl-L-tyrosyl-D-tryptophyl-L-lysyl-L-valyl-L-cysteinyl-L-threoninamide, cyclic (2→7)-disulfide $C_{94}H_{68}N_{11}O_{10}S_2$
ledazerolum ledazerol	2-hydroxy-3-(imidazol-4-ylmethyl)benzyl alcohol $C_{11}H_{12}N_2O_2$
lenograstimum lenograstim	133-[O-[O-(N-acetyl-α-neuraminosyl)-(2→3)-[O-β-D-galactopyranosyl-(1→3)]-2-acetamido-2-deoxy-β-D-galactopyranosyl]-L-threonine]colony-stimulating factor (human clone 1034) mixture with 133-[O-[O-(N-acetyl-α-neuraminosyl)-(2→6)-O-[O-(N-acetyl-α-neuraminosyl)-(2→3)-β-D-galactopyranosyl-(1→3)]-2-acetamido-2-deoxy-β-D-galactopyranosyl]-L-threonine]colony-stimulating factor (human clone 1034)
leuciglerum leucigler	L-leucine polymer with 5-methyl hydrogen L-glutamate $(C_6H_{13}NO_2)_m \cdot (C_6H_{11}NO_4)_n$
leaurubicinum leaurubicin	(8 <i>S</i> ,10 <i>S</i>)-10-[[3-[(<i>S</i>)-2-amino-4-methylvaleramido]-2,3,6-trideoxy-α-L-lyxo-hexopyranosyl]oxy]-8-glycoloyl-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-5,12-naphthacenedione $C_{33}H_{40}N_2O_{12}$
levofloxacinum levofloxacin	(-)-(<i>S</i>)-9-fluoro-2,3-dihydro-3-methyl-10-(4-methyl-1-piperazinyl)-7-oxo-7 <i>H</i> -pyrido[1,2,3- <i>de</i>]-1,4-benzoxazine-6-carboxylic acid $C_{18}H_{20}FN_3O_4$
levomentholum levomenthol	(-)-(1 <i>R</i> ,3 <i>R</i> ,4 <i>S</i>)-menthol $C_{10}H_{20}O$
levosulpiridum levosulpiride	(-)- <i>N</i> -[[(<i>S</i>)-1-ethyl-2-pyrrolidinyl]methyl]-5-sulfamoyl- <i>o</i> -anisamide $C_{15}H_{23}N_3O_4S$
liarozolum liarozole	(±)-5-(<i>m</i> -chloro-α-imidazol-1-ylbenzyl)benzimidazole $C_{17}H_{13}ClN_4$
liranaftatum anafate	<i>O</i> -(5,6,7,8-tetrahydro-2-naphthyl) 6-methoxy- <i>N</i> -methylthio-2-pyridinecarbamate $C_{18}H_{20}N_2O_2S$
lisadimatum lisadimate	(±)-glycerol 1-(<i>p</i> -aminobenzoate) $C_{10}H_{13}NO_4$
litoxetinum litoxetine	4-(2-naphthylmethoxy)piperidine $C_{16}H_{19}NO$
lometrexolum lometrexol	<i>N</i> -[<i>p</i> -[2-[(<i>R</i>)-2-amino-3,4,5,6,7,8-hexahydro-4-oxopyrido[2,3- <i>d</i>]pyrimidin-6-yl]ethyl]benzoyl]-L-glutamic acid $C_{21}H_{25}N_5O_6$

loteprednolum loteprednol	chloromethyl 11 β ,17-dihydroxy-3-oxoandrosta-1,4-diene-17 β -carboxylate $C_{27}H_{42}ClO_5$
loxoribinum loxoribine	7-allyl-2-amino-9- β -D-ribofuranosylpurine-6,8(1 <i>H</i> ,9 <i>H</i>)-dione $C_{13}H_{17}N_5O_5$
lufironilium lufironil	<i>N,N'</i> -bis(2-methoxyethyl)-2,4-pyridinedicarboxamide $C_{13}H_{19}N_3O_4$
mabuprofenum mabuprofen	(\pm)- <i>N</i> -(2-hydroxyethyl)- <i>p</i> -isobutylhydratropamide $C_{15}H_{23}NO_2$
masoprocolum masoprocol	<i>meso</i> -4,4'-(2,3-dimethyltetramethylene)dipyrrocatechol $C_{18}H_{22}O_4$
melarsominum melarsomine	bis(2-aminoethyl) <i>p</i> -[(4,6-diamino- <i>s</i> -triazin-2-yl)amino]dithiobenzene arsonite $C_{13}H_{21}AsN_4S_2$
midesteinum midesteine	2-thiophenecarbothioic acid, <i>S</i> -ester with (\pm)-2-mercapto- <i>N</i> -(tetrahydro-2-oxo-3-thienyl)propionamide $C_{12}H_{13}NO_3S_3$
minamestanum minamestane	4-aminoandrosta-1,4,6-triene-3,17-dione $C_{19}H_{23}NO_2$
mipragosidum mipragoside	<i>N</i> -(H ³ - <i>N</i> -acetylneuraminosylgangliosyltetraosyl)ceramide, isopropyl ester $C_{76}H_{137}N_3O_{31}$
mirfentanilum mirfentanil	<i>N</i> -(1-phenethyl-4-piperidyl)- <i>N</i> -pyrazinyl-2-furamide $C_{22}H_{24}N_4O_2$
miripirini chloridum miripirium chloride	1-tetradecyl-4-picolinium chloride $C_{20}H_{36}ClN$
mivazerolum mivazerol	α -imidazol-4-yl-2,3-cresotamide $C_{11}H_{11}N_3O_2$
mizolastinum mizolastine	2-[[1-[1-(<i>p</i> -fluorobenzyl)-2-benzimidazolyl]-4-piperidyl]methylamino]-4(3 <i>H</i>)-pyrimidinone $C_{24}H_{25}FN_5O$
modecainidum modecainide	(\pm)-2'-[2-(1-methyl-2-piperidyl)ethyl]vanillinilide $C_{22}H_{28}N_2O_3$
mofezolacum mofezolac	3,4-bis(<i>p</i> -methoxyphenyl)-5-isoxazoleacetic acid $C_{19}H_{17}NO_5$

*Recommended International
Nonproprietary Name
(Latin, English)*

Chemical Name or Description and Molecular Formula

moigramostimum molgramostim	colony-stimulating factor 2 (human clone pHG ₂₅ protein moiety reduced) C ₆₃₉ H ₁₀₀₇ N ₁₇₁ O ₁₉₆ S ₈ (for non-glycosylated protein)
mosapraminum mosapramine	(±)-1'-[3-(3-chloro-10,11-dihydro-5H-dibenz[<i>b,f</i>]azepin-5-yl)propyl]hexahydro- spiro[imidazo[1,2- <i>a</i>]pyridine-3(2 <i>H</i>),4'-piperidin]-2-one C ₂₈ H ₃₅ ClN ₄ O
nadifloxacinum nadifloxacin	(±)-9-fluoro-6,7-dihydro-8-(4-hydroxypiperidino)-5-methyl-1-oxo-1 <i>H</i> ,5 <i>H</i> - benzo[<i>ij</i>]quinolizine-2-carboxylic acid C ₁₉ H ₂₁ FN ₂ O ₄
nadroparinum calcicum nadroparin calcium	Calcium salt of depolymerized heparin obtained by nitrous acid degradation of heparin from pork intestinal mucosa; the majority of the components have a 2- <i>O</i> -sulfo-α-L-idopyranosuronic acid structure at the non-reducing end and a 6- <i>O</i> -sulfo-2,5-anhydro-α-mannitol structure at the reducing end of their chain; the average relative molecular mass is 4000 to 5000; the degree of sulfation is about 2,1 per disaccharidic unit.
nafagrelum nafagrel	(±)-5,6,7,8-tetrahydro-6-(imidazol-1-ylmethyl)-2-naphthoic acid C ₁₅ H ₁₆ N ₂ O ₂
nafarelinum nafarelin	5-oxo-L-prolyl-L-histidyl-L-tryptophyl-L-seryl-L-tyrosyl-3-(2-naphthyl)-D-alanyl- L-leucyl-L-arginyl-L-prolylglycinamide C ₆₈ H ₈₃ N ₁₇ O ₁₃
naroparcilum naroparcil	<i>p</i> -[<i>p</i> -(5-thio-β-D-xylopyranosyl)thio]benzoyl]benzonitrile C ₁₉ H ₁₇ NO ₄ S ₂
nemazolinum nemazoline	2-(4-amino-3,5-dichlorobenzyl)-2-imidazoline C ₁₀ H ₁₁ Cl ₂ N ₃
nemonapridum nemonapride	(±)- <i>cis-N</i> -(1-benzyl-2-methyl-3-pyrrolidinyl)-5-chloro-4-(methylamino)- <i>o</i> -anisamide C ₂₁ H ₂₆ ClN ₃ O ₂
restifyllinum restifylline	7-(1,3-dithiolan-2-ylmethyl)theophylline C ₁₁ H ₁₄ N ₄ O ₂ S ₂
neticonazolum neticonazole	(<i>E</i>)-1-[2-(methylthio)-1-[<i>o</i> -(pentyloxy)phenyl]vinyl]imidazole C ₁₇ H ₂₂ N ₂ OS
nicoracetamum nicoracetam	1-(6-methoxynicotinoyl)-2-pyrrolidinone C ₁₁ H ₁₂ N ₂ O ₃
ocaperidonum ocaperidone	3-[2-[4-(6-fluoro-1,2-benzisoxazol-3-yl)piperidino]ethyl]-2,9-dimethyl-4 <i>H</i> - pyrido[1,2- <i>a</i>]pyrimidin-4-one C ₂₄ H ₂₅ FN ₄ O ₂

<i>Recommended International Nonproprietary Name (Latin, English)</i>	<i>Chemical Name or Description and Molecular Formula</i>
ormaplatinum ormaplatin	(±)- <i>trans</i> -tetrachloro(1,2-cyclohexanediamine)platinum $C_6H_{14}Cl_4N_2Pt$
otenzepadum otenzepad	(±)-11-[[2-[(diethylamino)methyl]piperidino]acetyl]-5,11-dihydro-6 <i>H</i> - pyrido[2,3- <i>b</i>][1,4]benzodiazepin-6-one $C_{24}H_{31}N_5O_2$
oxiglutationum oxiglutatione	<i>N,N'</i> -[dithiobis[(<i>R</i>)-1-[(carboxymethyl)carbamoyl]ethylene]]di-L-glutamine $C_{20}H_{32}N_6O_{12}S_2$
palonidipinum palonidine	(±)-3-(benzylmethylamino)-2,2-dimethylpropyl methyl 4-(2-fluoro-5- nitrophenyl)-1,4-dihydro-2,6-dimethyl-3,5-pyridinedicarboxylate $C_{29}H_{34}FN_3O_6$
panipenemum panipenem	(+)-(5 <i>R</i> ,6 <i>S</i>)-3-[[(<i>S</i>)-1-acetimido-3-pyrrolidinyl]thio]-6-[(<i>R</i>)-1-hydroxyethyl]- 7-oxo-1-azabicyclo[3.2.0]hept-2-ene-2-carboxylic acid $C_{15}H_{21}N_3O_4S$
parnaparinum natricum parnaparin sodium	Sodium salt of depolymerized heparin obtained by hydrogen peroxide and cupric acetate degradation of heparin from bovine and pork intestinal mucosa; the majority of the components have a 2- <i>O</i> -sulfo- α -L-idopyrano- sulfonic acid structure at the non-reducing end and a 2- <i>N</i> ,6- <i>O</i> -di-sulfo- α - glucosamine structure at the reducing end of their chain; the average relative molecular mass is between 4000 and 6000 (5000 \pm 20 per cent); the degree of sulfatation is 2,15 (\pm 10 per cent) per disaccharidic unit.
pegademaseum pegademase	adenosine deaminase, reaction product with succinic anhydride, esters with polyethylene glycol monomethyl ether The species specificity should be indicated in brackets after the name.
pegaspargasum pegaspargase	asparaginase, reaction product with succinic anhydride, esters with polyethylene glycol monomethyl ether
picumeterolum picumeterol	(-)-(<i>R</i>)-4-amino-3,5-dichloro- α -[[[6-[2-(2-pyridyl)ethoxy]hexyl]amino]- methyl]benzyl alcohol $C_{21}H_{29}Cl_2N_3O_2$
pidotimodum pidotimod	(<i>R</i>)-3-[(<i>S</i>)-5-oxopropyl]-4-thiazolidinecarboxylic acid $C_9H_{12}N_2O_4S$
pirodavirum pirodavir	ethyl <i>p</i> -[2-[1-(6-methyl-3-pyridazinyl)-4-piperidyl]ethoxy]benzoate $C_{21}H_{27}N_3O_3$
pirodomastum pirodomast	4-hydroxy-1-phenyl-3-(1-pyrrolidinyl)-1,8-naphthyridin-2(1 <i>H</i>)-one $C_{18}H_{17}N_3O_2$
porfimerum natricum porfimer sodium	photofrin II

*Recommended International
Nonproprietary Name
(Latin, English)*

Chemical Name or Description and Molecular Formula

prinoxodanum prinoxodan	3,4-dihydro-3-methyl-6-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)-2(1 <i>H</i>)-quinazolinone $C_{13}H_{14}N_4O_2$
prisotinolum prisotinol	(±)-6-[2-(isopropylamino)propyl]-3-pyridinol $C_{11}H_{18}N_2O$
propagermanium propagermanium	polymer obtained from 3-(trihydroxygermyl)propionic acid $(C_3H_5GeO_3)_n$
quinotolastum quinotolast	4-oxo-1-phenoxy- <i>N</i> -1 <i>H</i> -tetrazol-5-yl-4 <i>H</i> -quinolizine-3-carboxamide $C_{17}H_{12}N_8O_3$
quinupristinum quinupristin	<i>N</i> -[(6 <i>R</i> ,9 <i>S</i> ,10 <i>R</i> ,13 <i>S</i> ,15 <i>aS</i> ,22 <i>S</i> ,24 <i>aS</i>)-22-[<i>p</i> -(dimethylamino)benzyl]-6-ethyl-docosahydro-10,23-dimethyl-5,8,12,15,17,21,24-hepta-oxo-13-phenyl-18-[[[(3 <i>S</i>)-quinuclidinylthio]methyl]-12 <i>H</i> -pyrido[2,1- <i>f</i>]pyrrolo[2,1- <i>i</i>][1,4,7,10,13,16]oxa-pentaaazacyclononadecin-9-yl]-3-hydroxypicolinamide $C_{53}H_{67}N_9O_{10}S$
racementholum racementhol	(±)-(1 <i>R</i> *,3 <i>R</i> *,4 <i>S</i> *)-menthol $C_{10}H_{20}O$
regramostimum regramostim	colony-stimulating factor 2 (human clone pCSF-1 protein moiety reduced), glycoform GMC 89-107 $C_{837}H_{1003}N_{171}O_{197}S_8$
repagermanium repagermanium	poly- <i>trans</i> -[(2-carboxyethyl)germassequioxane] $(C_{18}H_{30}Ge_4O_{21})_n$
reviparinum natricum reviparin sodium	Sodium salt of depolymerized heparin obtained by nitrous acid degradation of heparin from pork intestinal mucosa, the majority of the components have a 2- <i>O</i> -sulfo- α -L-idopyranosuronic acid structure at the non-reducing end and a 6- <i>O</i> -sulfo-2,5-anhydro-D-mannitol structure at the reducing end of their chain; the average relative molecular mass is 3500 to 4500, 90 per cent of which ranging between 2000 and 8000; the degree of sulfation is about 2,2 per disaccharidic unit.
ispenzepinum ispenzepine	(±)-6,11-dihydro-11-(1-methylnipecotoyl)-5 <i>H</i> -pyrido[2,3- <i>b</i>][1,5]benzo-diazepin-5-one $C_{19}H_{20}N_4O_2$
ritolukastum ritolukast	1,1,1-trifluoro- α -2-quinolylmethanesulfon- <i>m</i> -anisidide $C_{17}H_{13}F_3N_2O_3S$
roxadimatum roxadimate	ethyl (±)- <i>p</i> -[bis(2-hydroxypropyl)amino]benzoate $C_{15}H_{23}NO_4$
sagandipinum sagandipine	methyl (5-piperidinomethyl)furfuryl 4-(<i>o</i> -fluorophenyl)-1,4-dihydro-2,6-dimethyl-3,5-pyridinedicarboxylate $C_{27}H_{31}FN_2O_5$

*Recommended International
Nonproprietary Name
(Latin, English)*

Chemical Name or Description and Molecular Formula

sapropterinum sapropterin	(-)-(6 <i>R</i>)-2-amino-6-[(1 <i>R</i> ,2 <i>S</i>)-1,2-dihydroxypropyl]-5,6,7,8-tetrahydro-4(3 <i>H</i>)- pteridinone $C_9H_{15}N_5O_3$
sarpogrelatum sarpogrelate	(±)-2-(dimethylamino)-1-[[<i>o</i> -(<i>m</i> -methoxyphenethyl)phenoxy]methyl]ethyl hydrogen succinate $C_{24}H_{31}NO_5$
semotiadilum semotiadil	(+)-(<i>R</i>)-2-[5-methoxy-2-[3-[methyl[2-[3,4-methylenedioxy]phenoxy]ethyl]- amino]propoxy]phenyl]-4-methyl-2 <i>H</i> -1,4-benzothiazin-3(4 <i>H</i>)-one $C_{29}H_{32}N_2O_5S$
serazapinum serazapine	methyl (±)-1,3,4,16b-tetrahydro-2-methyl-2 <i>H</i> ,10 <i>H</i> -indolo[2,1- <i>c</i>]pyrazino- [1,2- <i>a</i>][1,4]benzodiazepine-16-carboxylate $C_{22}H_{23}N_5O_2$
siltenzepinum siltenzepine	5-[<i>N,N</i> -bis(2-hydroxyethyl)glycyl]-8-chloro-5,10-dihydro-11 <i>H</i> - dibenzo[<i>b,e</i>][1,4]diazepin-11-one $C_{19}H_{20}ClN_3O_4$
somagrebovum somagrebove	1-[<i>N</i> ² -(<i>N</i> -L-methionyl-L-α-aspartyl)-L-glutamine]growth hormone (ox reduced) $C_{987}H_{1554}N_{268}O_{291}S_9$
somavubovum somavubove	127-L-leucinegrowth hormone (ox) $C_{976}H_{1533}N_{265}O_{286}S_8$
sorivudinum sorivudine	(+)-1-β-D-arabinofuranosyl-5-[(<i>E</i>)-2-bromovinyl]uracil $C_{11}H_{13}BrN_2O_6$
sparfloxacinum sparfloxacin	5-amino-1-cyclopropyl-7-(<i>cis</i> -3,5-dimethyl-1-piperazinyl)-6,8-difluoro-1,4- dihydro-4-oxo-3-quinolinecarboxylic acid $C_{19}H_{22}F_2N_4O_3$
spiriprostilum spiriprostil	(±)-(5 <i>R</i> *,6 <i>S</i> *,7 <i>R</i> *)-7-hexyl-2,4-dioxo-1,3-diazaspiro[4,4]nonane-6-heptanoic acid $C_{20}H_{34}N_2O_4$
sucrosofatum sucrosofate	sucrose octakis(hydrogen sulfate) $C_{12}H_{22}O_{15}S_8$
sulazurilum sulazuril	2-[3,5-dichloro-4-[<i>p</i> -(methylsulfonyl)phenoxy]phenyl]dihydro-1-methyl- as-triazine-3,5-(2 <i>H</i> ,4 <i>H</i>)-dione $C_{17}H_{13}Cl_2N_3O_3S$
suleparoidum natricum suleparoid sodium	heparitin sulfate, sodium salt ($C_{14}H_{18}NO_{17}S_2Na_3$) _n
sulofenurum sulofenur	1-(<i>p</i> -chlorophenyl)-3-(5-indanylsulfonyl)urea $C_{16}H_{15}ClN_2O_3S$

*Recommended International
Nonproprietary Name
(Latin, English)*

Chemical Name or Description and Molecular Formula

sulukastum sulukast	3-[[[(1 <i>R</i> ,2 <i>E</i> ,4 <i>Z</i>)-1-[(<i>aS</i>)- <i>a</i> -hydroxy- <i>m</i> -1 <i>H</i> -tetrazol-5-yl]benzyl]-2,4-tetradecadienyl]thio]propionic acid $C_{25}H_{36}N_4O_3S$
sumarotenum sumarotene	1,2,3,4-tetrahydro-1,1,4,4-tetramethyl-6-[(<i>E</i>)- <i>a</i> -methyl- <i>p</i> -(methylsulfonyl)-styryl]naphthalene $C_{24}H_{30}O_2S$
suplatastum tosilas suplatast tosilate	(±)-[2-[[<i>p</i> -(3-ethoxy-2-hydroxypropoxy)phenyl]carbamoyl]ethyl]-dimethylsulfonium <i>p</i> -toluenesulfonate $C_{23}H_{33}NO_7S_2$
tamsulosinum tamsulosin	(-)-(<i>R</i>)-5-[2-[[2-(<i>o</i> -ethoxyphenoxy)ethyl]amino]propyl]-2-methoxybenzene-sulfonamide $C_{20}H_{28}N_2O_5S$
taurosteinum urosteine	<i>N</i> -2-thenoyltaurine $C_7H_9NO_4S_2$
tebufelonum tebufelone	3',5'-di- <i>tert</i> -butyl-4'-hydroxy-5-hexynophenone $C_{26}H_{28}O_2$
technetii (^{99m}Tc) bicasas technetium (^{99m}Tc) bicisate	[<i>N,N'</i> -ethylenedi-L-cysteinato(3-)]oxo[^{99m}Tc] technetium(V), diethyl ester $C_{12}H_{21}N_2O_5S_2^{99m}\text{Tc}$
technetium (^{99m}Tc) siboroximum technetium (^{99m}Tc) siboroxime	[bis[(2,3-butanedione dioximato){(1-)- <i>O</i> }][(2,3-butanedione dioximato)(2-)- <i>O</i>]isobutylborato(2-)- <i>N,N'</i> , <i>N''</i> , <i>N'''</i> , <i>N''''</i> , <i>N'''''</i>]chloro[^{99m}Tc]technetium(III) $C_{18}H_{29}BClN_6O_6^{99m}\text{Tc}$
telmesteinum telmesteine	(-)-3-ethyl hydrogen (<i>R</i>)-3,4-thiazolidinedicarboxylate $C_7H_{11}NO_4S$
teludipinum teludipine	(±)-4-[<i>o</i> -[(<i>E</i>)-2-carboxyvinyl]phenyl]-2-[(dimethylamino)methyl]-1,4-dihydro-6-methyl-3,5-pyridinedicarboxylic acid, 4- <i>tert</i> -butyl diethyl ester $C_{28}H_{38}N_2O_6$
matropii metilsulfas matropium metilsulfate	3 <i>a</i> -hydroxy-8-methyl-1 <i>aH</i> ,5 <i>aH</i> -tropanium methyl sulfate (salt), (±)-ethyl hydrogen phenylmalonate $C_{21}H_{31}NO_6S$
temocaprilum temocapril	(+)-(2 <i>S</i> ,6 <i>R</i>)-6-[[[(1 <i>S</i>)-1-carboxy-3-phenylpropyl]amino]tetrahydro-5-oxo-2-(2-thienyl)-1,4-thiazepine-4(5 <i>H</i>)-acetic acid, 6-ethyl ester $C_{23}H_{28}N_2O_5S_2$
tenosalum tenosal	2-thiophenecarboxylic acid, ester with salicylic acid $C_{12}H_8O_4S$
tenosiprolum tenosiprol	(<i>R</i>)-4-hydroxy-L-proline 2-thiophenecarboxylate (ester) $C_{10}H_{11}NO_4S$

<i>Recommended International Nonproprietary Name (Latin, English)</i>	<i>Chemical Name or Description and Molecular Formula</i>
terbequinilum terbequinil	1,4-dihydro-1-(methoxymethyl)-4-oxo- <i>N</i> -propyl-3-quinolinecarboxamide $C_{19}H_{18}N_2O_3$
terikalantum terikalant	(-)-1-[2-(4-chromanyl)ethyl]-4-(3,4-dimethoxyphenyl)piperidine $C_{24}H_{31}NO_3$
tiagabinum tiagabine	(-)-(<i>R</i>)-1-[4,4-bis(3-methyl-2-thienyl)-3-butenyl]nipecotic acid $C_{20}H_{25}NO_2S_2$
tibeglisenum tibeglisene	(±)-5-(<i>p</i> -chlorophenyl)-2-(<i>p</i> -tolylsulfonyl)-4-pentynoic acid $C_{18}H_{15}ClO_4S$
tirilazadum tirilazad	21-[4-(2,6-di-1-pyrrolidinyl-4-pyrimidinyl)-1-piperazinyl]-16 α -methylpregna- 1,4,9(11)-triene-3,20-dione $C_{38}H_{52}N_6O_2$
tulopafantum tulopafant	(+)-3'-benzoyl-3-(3-pyridyl)-1 <i>H</i> ,3 <i>H</i> -pyrrolo[1,2- <i>c</i>]thiazole-7-carboxanilide $C_{25}H_{19}N_3O_2S$
utibaprilum utibapril	(<i>S</i>)-2- <i>tert</i> -butyl-4-[(<i>S</i>)- <i>N</i> -[(<i>S</i>)-1-carboxy-3-phenylpropyl]alanyl]-2 ² -1,3,4- thiadiazoline-5-carboxylic acid, 4-ethyl ester $C_{22}H_{31}N_3O_5S$
vamicamidum vamicamide	(±)-(<i>R</i> *)- α -[(<i>R</i> *)-2-(dimethylamino)propyl]- α -phenyl-2-pyridineacetamide $C_{18}H_{23}N_3O$
vanoxerinum vanoxerine	1-[2-[bis(<i>p</i> -fluorophenyl)methoxy]ethyl]-4-(3-phenylpropyl)piperazine $C_{28}H_{32}F_2N_2O$
vinfosiltinum vinfosiltine	[23(<i>S</i>)]-4-deacetyl-3-de(methoxycarbonyl)-3-[(2-methyl- 1-phosphonopropyl)carbamoyl]vincal leukoblastine, diethyl ester $C_{51}H_{72}N_5O_{10}P$
vinleucinolum vinleucinol	[23(1 <i>S</i> ,2 <i>S</i>)]-4-deacetyl-3-[(1-carboxy-2-methylbutyl)carbamoyl]- 3-de(methoxycarbonyl)vincal leukoblastine, ethyl ester $C_{51}H_{69}N_5O_9$
vorozolum vorozole	(+)-6-(<i>p</i> -chloro- α -1 <i>H</i> -1,2,4-triazol-1-ylbenzyl)-1-methyl-1 <i>H</i> -benzotriazole $C_{16}H_{13}ClN_6$
zabiciprilatum zabiciprilat	(<i>S</i>)-2-[(<i>S</i>)- <i>N</i> -[(<i>S</i>)-1-carboxy-3-phenylpropyl]alanyl]-2-azabicyclo[2.2.2]octane- 3-carboxylic acid $C_{21}H_{28}N_2O_5$
zalospironum zalospirone	(1 <i>R</i> *,2 <i>R</i> *,5 <i>S</i> *,6 <i>S</i> *,7 <i>S</i> *,8 <i>R</i> *)- <i>N</i> -[4-[4-(2-pyrimidinyl)-1-piperazinyl]butyl]- tricyclo[4.2.2.0 ^{2,5}]deca-3,9-diene-7,8-dicarboximide $C_{24}H_{29}N_5O_2$

*Recommended International
Nonproprietary Name
(Latin, English)*

Chemical Name or Description and Molecular Formula

zaltoprofenum zaltoprofen	(±)-10,11-dihydro- <i>a</i> -methyl-10-oxodibenzo[<i>b,f</i>]thiepin-2-acetic acid C ₁₇ H ₁₄ O ₃ S
zatosetronum zatosetron	5-chloro-2,3-dihydro-2,2-dimethyl- <i>N</i> -1 <i>aH</i> ,5 <i>aH</i> -tropan-3 <i>a</i> -yl-7-benzofuran-carboxamide C ₁₉ H ₂₅ ClN ₂ O ₂
zenarestatum zenarestat	3-(4-bromo-2-fluorobenzyl)-7-chloro-3,4-dihydro-2,4-dioxo-1(2 <i>H</i>)-quinazolineacetic acid C ₁₇ H ₁₁ BrClFN ₂ O ₄
zeniplatium zeniplat	<i>cis</i> -[2,2-bis(aminomethyl)-1,3-propanediol](1,1-cyclobutane-dicarboxylato)platinum C ₁₁ H ₂₀ N ₂ O ₆ Pt
zifascorbum (2H) zifascorb (2H)	5,6- <i>O</i> -[(<i>RS</i>)-benzylidene- <i>α</i> - <i>D</i>]-L-ascorbic acid C ₁₃ H ₁₁ DO ₆
zileutonum zileuton	(±)-1-(1-benzo[<i>b</i>]thien-2-ylethyl)-1-hydroxyurea C ₁₁ H ₁₂ N ₂ O ₂ S
zofenoprilatum zofenoprilat	(4 <i>S</i>)-1-[(<i>S</i>)-3-mercapto-2-methylpropionyl]-4-(phenylthio)-L-proline C ₁₅ H ₁₈ NO ₃ S ₂
zopolrestatum zopolrestat	3,4-dihydro-4-oxo-3-[[5-(trifluoromethyl)-2-benzothiazolyl]methyl]-1-phthalazineacetic acid C ₁₉ H ₁₂ F ₃ N ₃ O ₃ S

AMENDMENTS TO PREVIOUS LISTS

WHO Chronicle, Vol. 19, No. 4, 5 and 6, 1965

Recommended International Nonproprietary Names (Rec. INN): List 5

- | | | |
|------|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| p. 9 | galantaminum
galantamine | <i>replace the chemical name by the following:</i>
1,2,3,4,6,7,7a,11c-octahydro-9-methoxy-2-methylbenzofuro[3a,3,2-ef][2]-benzazepin-6-ol |
|------|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|

Supplement to WHO Chronicle, Vol. 35, No. 5, 1981

Recommended International Nonproprietary Names (Rec. INN): List 21

- | | | |
|------|----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| p. 2 | amifostinum
amifostine | <i>replace the chemical name and the molecular formula by the following:</i>
S-[2-[(3-aminopropyl)amino]ethyl] dihydrogen phosphorothioate
$C_5H_{15}N_2O_3PS$ |
| p. 6 | loprazolamum
loprazolam | <i>replace the chemical name by the following:</i>
(Z)-6-(o-chlorophenyl)-2,4-dihydro-2-[(4-methyl-1-piperazinyl)methylene]-8-nitro-1H-imidazo[1,2-a][1,4]benzodiazepin-1-one |

Supplement to WHO Chronicle, Vol. 39, No. 5, 1985

Recommended International Nonproprietary Names (Rec. INN): List 25

- | | | |
|------|-----------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| p. 5 | efrotomycinum
efrotomycin | <i>replace the chemical name by the following:</i>
an antibiotic produced by <i>Streptomyces lactamdurans</i>
efrotomycin A, or
(αS,2R,3R,4R,6S)-4-[[[6-deoxy-4-O-(6-deoxy-2,4-di-O-methyl-α-L-mannopyranosyl)-3-O-methyl-β-D-allopyranosyl]oxy]-N-[(2E,4E,6S,7R)-7-[(2S,3S-4R,5R)-5-[(1E,3E,5E)-6-(1,2-dihydro-4-hydroxy-1-methyl-2-oxonicotinoyl)-1,3,5-heptatrienyl]tetrahydro-3,4-dihydroxy-2-furyl]-6-methoxy-5-methyl-2,4-octadienyl]-α-ethyltetrahydro-2,3-dihydroxy-5,5-dimethyl-6-[(1E,3Z)-1,3-pentadienyl]-2H-pyran-2-acetamide |
| p. 6 | enoxaparinum
enoxaparin

<i>insert</i>
enoxaparinum natricum
enoxaparin sodium | <i>delete the whole entry</i>

<i>insert</i>
Sodium salt of depolymerized heparin obtained by alkaline degradation of heparin benzyl ester from pork intestinal mucosa; the majority of the components present a 2-O-sulfo-4-enepyranosuronic acid structure at the non-reducing end and a 2-N,6-O-disulfo-D-glucosamine structure at the reducing end of their chain; the average relative molecular mass is about 4500, ranging between 3500 and 5500; the degree of sulfatation is about 2 per disaccharidic unit. |

Supplement to WHO Chronicle, Vol. 40, No. 6, 1986

Recommended International Nonproprietary Names (Rec. INN): List 26

- | | | |
|------|----------------------------|--------------------------------------------------------------------------------------------------------------------------------|
| p. 4 | epalrestatum
epalrestat | <i>replace the chemical name by the following:</i>
5-[(Z,E)-β-methylcinnamylidene]-4-oxo-2-thioxo-3-thiazolidineacetic acid |
|------|----------------------------|--------------------------------------------------------------------------------------------------------------------------------|

WHO Drug Information, Vol. 2, No. 3, 1988

Recommended International Nonproprietary Names (Rec. INN): List 28

- | | | |
|------|-------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| p. 3 | <i>delete</i>
levdropropizinium
levdropropizine | <i>insert</i>
levodropropizinium
levodropropizine |
| p. 4 | permedolacum
permedolac | <i>replace the chemical name by the following:</i>
(±)- <i>cis</i> -4-benzyl-1-ethyl-1,3,4-9-tetrahydropyrano[3,4- <i>b</i>]indole-1-acetic acid |

WHO Drug Information, Vol. 3, No. 3, 1989

Recommended International Nonproprietary Names (Rec. INN): List 29

- | | | |
|------|--------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| p. 1 | acemannanum
acemannan | <i>replace the description by the following:</i>
Acemannan is a highly acetylated, polydispersed, linear mannan obtained from the mucilage of <i>Aloe barbadensis</i> , Miller (aloe vera). |
| p. 2 | beraprostum
beraprost | <i>replace the chemical name by the following:</i>
(±)-{(1 <i>R</i> ,2 <i>R</i> ,3 <i>aS</i> ,8 <i>bS</i>)-2,3,3 <i>a</i> ,8 <i>b</i> -tetrahydro-2-hydroxy-1-[(<i>E</i>)-(3 <i>S</i> ,4 <i>RS</i>)-3-hydroxy-4-methyl-1-octen-6-ynyl]-1 <i>H</i> -cyclopenta[<i>b</i>]benzofuran-5-butyril} acid |

WHO Drug Information, Vol. 4, No. 3, 1990

Recommended International Nonproprietary Names (Rec. INN): List 30

- | | | |
|------|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| p. 6 | fosquidonum
fosquidone | <i>replace the chemical name by the following:</i>
benzyl (±)-5,8,13,14-tetrahydro-14-methyl-8,13-dioxobenz[5,6]isoindolo-[2,1- <i>b</i>]isoquinolin-9-yl hydrogen phosphate |
| p. 8 | moxidectinum
moxidectin | <i>replace the chemical name by the following:</i>
(6 <i>R</i> ,25 <i>S</i>)-5- <i>O</i> -demethyl-28-deoxy-25-[(<i>E</i>)-1,3-dimethyl-1-butenyl]-6,28-epoxy-23-oxomilbemycin B 23-(<i>E</i>)-(O-methyloxime) |