

Addendum¹ to
***"The use of stems in the selection of International
Nonproprietary Names (INN) for pharmaceutical
substances"*** WHO/EMP/RHT/TSN/2018.1

Programme on International Nonproprietary Names (INN)

***Health Products Policy and Standards (HPS)
Access to Medicines and Health Products (MHP)***

World Health Organization, Geneva

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Addendum¹ to "The use of stems in the selection of International Nonproprietary Names (INN) for pharmaceutical substances" - WHO/EMP/RHT/TSN/2018.1

¹ This addendum is a cumulative list of all new stems selected by the INN Expert Group since the publication of *"The use of stems in the selection of International Nonproprietary Names (INN) for pharmaceutical substances"* 2018.

-adenant	adenosine receptors antagonists
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ciforadenant (118), inupadenant (123), preladenant (99), taminadenant (120), tozadenant (106), vipadenant (103)

-caftor	cystic fibrosis transmembrane regulator (CFTR) protein modulators, correctors, and amplifiers
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bamocaftor (121), deutivacaftor (118), dirocaftor (123), elexacaftor (121), galicaftor (119), icenticaftor (122), ivacaftor (104), lumacaftor (105), navocaftor (121), nesolicaftor (122), olacaftor (119), posenacaftor (122), tezacaftor (114)

-calcet/-calcet-	calcium-sensing receptors (CaSR) agonists
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cinacalcet (88), etelcalcetide (112), evocalcet (113), tecalcet (87), upacalcet (118)

-cerfont	corticotropin-releasing factor (CRF) receptor antagonists
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crinecerfont (120), emicerfont (102), pexacerfont (97), tildacerfont (119), verucerfont (102)

-copan	complement receptor antagonists/ complement inhibitors
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avacopan (114), danicopan (119), iptacopan (122), nomacopan (119)

(c) category: pegcetacoplan (120), zilucoplan (118)

-corat	glucocorticoid receptor agonists
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dagrocorat (111), fosdagrocorat (111), mapracorat (102), tomicorat (108), velsecorat (121)

-espib**heat shock protein (HSP) 90 inhibitors (other than –mycin)**

icapamespib (123), ganetespib (105), luminespib (108), onalespib (112), pimitespib (121), zelavespib (123)

-fexor**farnesoid X receptor agonists**

cilofexor (119), nidufexor (118), tropifexor (116), turofexorate isopropyl (103), vonafexor (122)

-fusp**fusion proteins¹**

bintrafusp alfa (121), cinrebafusp alfa (121), clervonafusp alfa (120), lorukafusp alfa (120), modakafusp alfa (122), onfekafusp alfa (118), oplunofusp (123), pabinafusp alfa (120), rozibafusp alfa (120), simlukafusp alfa (121), tagraxofusp (118), tebentafusp (118), valanafusp alfa (118)

-golix**gonadotropin releasing hormone (GnRH) antagonists**

elagolix (99), linzagolix (118), opigolix (118), relugolix (107), sufugolix (89)

-irine**cytotoxic pyrrolbenzodiazepine dimers and analogues**

camidanlumab tesirine (117), loncastuximab tesirine (117), mipasetamab uzoptirine (123), rolinsatamab talirine (119), rovalpituzumab tesirine (114), serclutamab talirine (120), tamrintamab pamozirine (120), vadastuximab talirine (113)

-ixafor**chemokine CXCR4 antagonists**

balixafortide (112), burixafor (104), mavorixafor (118), motixafortide (120), plerixafor (93)

¹ A fusion protein is defined as a multifunctional protein derived from a single nucleotide sequence which may contain two or more genes or portions of genes with or without amino acid linker sequences. The genes should originally code for separate proteins, with at least two of them endowed with pharmacological action (e.g. action and targeting). "Notes from the fusion protein Working Group", INN Working Document number 17.414 rev.

-ixibat	ileal bile acid transporter (IBAT) inhibitors, bile acid reabsorption inhibitors
barixibat (88), elobixibat (104), linerixibat (118), maralixibat chloride (113), odevixibat (119), volixibat (113)	
-leuton	5-lipo-oxygenase inhibitors, anti-inflammatory
atreleuton (78), diroleuton (118), epeleuton (118), fenleuton (72), setileuton (101), zileuton (63)	
<i>stat</i>	enzyme inhibitors
-becestat	beta secretase inhibitors
atabecestat (117), elenbecestat (117), umibecestat (119), lanabecestat (116), verubecestat (112)	
-glustat	ceramide glucosyltransferase inhibitors
duvoglustat (102), eliglustat (103), miglustat (85), sinbaglustat (121), venglustat (114)	
-stinel	N-methly-D-aspartate (NMDA) receptor co-agonists
apimostinel (115), gavestinel (77), licostinel (77), rapastinel (111), zelquistinel (121)	
-tinib	tyrosine kinase inhibitors
-ertinib	epidermal growth factor receptor (EGFR) inhibitors
abivertinib (119), befotertinib (123), canertinib (87), epertinib (115), lazertinib (117), mavelertinib (118), mobocertinib (121), olafertinib (121), osimertinib (113), rezivertinib (122), xiliertinib (121), zorifertinib (121)	
(b) category: ulixertinib (113), ravoxertinib (115) (Erk inhibitors)	
(c) category: afatinib (104), olmutinib (114), erlotinib (85), gefitinib (85), mubritinib (90), nazartinib (114), mubritinib (90), nazartinib (114)	

-tirom(-)

antihyperlidaemic; thyromimetic derivatives

acetiromate (30), axitirome (82), bentiromide (41), eprotirome (99), resmetirom (119), sobetirome (100)

-toclax

B-cell lymphoma 2 (Bcl-2) inhibitors, antineoplastics

obatoclax (94), navitoclax (103), venetoclax (111), imlatoclax (115), pelcitoclax (122), tapotoclax (121), mirzotamab clezutoclax (121), murizatoclax (122)

Amendments were also made in the following stems' definitions:

-imus

from *immunosuppressants, other than antineoplastics*
to *immunosuppressants, ~~other than antineoplastics~~*

-isant

from *histamine H₃ receptor antagonists*
to *histamine H₃ receptor antagonists, inverse agonists*

under *-tant*

-netant

from *neurokinin NK3 receptor antagonists*
to *neurokinin NK3 and dual NK3-NK1 receptor antagonists*

-pressin

from *vasoconstrictors, vasopressin derivatives*
to *~~vasoconstrictors~~, vasopressin analogues*

-pride

from *sulpiride derivatives*
to *sulpiride derivatives and analogues*

-prim

from *antimicrobials, dihydrofolate reductase (DHFR) inhibitors, trimethoprim derivatives*
to *antimicrobials, dihydrofolate reductase (DHFR) inhibitors, trimethoprim analogues*

-renone (new)

from *aldosterone receptor antagonists, spironolactone derivatives*
to *mineralocorticoid receptor (MR, MCR, aldosterone receptor) antagonists*

Amendments were also made in the stem's infix:

-gromab

from *-gros~~m~~ab*
for the designation of INN for monoclonal antibodies targeting skeletal muscle mass related growth factors and receptors