

***Pre-stems\*:  
Suffixes used in the selection of INN  
March 2024***

***Programme on International Nonproprietary Names (INN)***

***Medicines and Health Products***

***World Health Organization,  
Geneva***

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\*The prestems given have been flagged because they may be selected as official stems ("The use of stems in the selection of International Nonproprietary Names for Pharmaceutical Substances", 2018, WHO/EMP /RHT/TSN/2018.1). At present, they are made available for information and potential guidance to the applicants.

stem

definition

-suffix

-infix-

**In bold:** new pre-stems selected during the last Consultation.

**In bold and underlined:** pre-stems promoted as stems

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|                           |  |
|---------------------------|--|
| <b>-adex</b>              | <b>cyclodextrines</b>  |
| -afine                    | squalene mono-oxygenase inhibitors, antifungals  |
| -algron                   | $\alpha_1$ -adrenoreceptor agonists  |
| -alkib                    | ALK (anaplastic lymphoma kinase) inhibitors  |
| <b><u>-ampator</u></b>    | <b><u><math>\alpha</math>-amino-3-hydroxy-5-methyl-4-isoxazolepropionic acid (AMPA) receptor modulators</u></b>    |
| -ase<br>-fotase<br>-liase | enzymes<br>alkaline phosphatase<br>lyases (EC class 4)   |
| -ast<br>-noflast          | <i>anti-allergic and anti-inflammatory, not acting as antihistaminics</i><br>inflammasome protein NLRP3 inhibitors |
| -atovir                   | see <i>vir</i>   |
| -batinib                  | see <i>-tinib</i>  |
| -berel                    | beta estrogen receptor agonists  |
| -caltamide                | T-type calcium channel blockers  |
| -camra                    | intracellular adhesion molecule (ICAM-1) derivatives   |
| -camtiv                   | cardiac myosin activators  |
| -caprant                  | kappa-opioid receptor (KOR/KOP) antagonists  |
| -casan                    | caspase inhibitors   |
| -caserin                  | serotonin receptor agonists (mostly 5-HT <sub>2</sub> )  |

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|--|---|
| -cept<br>-rpcept<br>-tacicept              | receptor molecules or membrane ligands, native or modified<br>SIRP $\alpha$ receptor proteins<br>TACI (TNFRSF13B)-derived TNF receptors |
| <b><u>-cirnon</u></b>                      | <b><u>CC chemokine receptor (CCR) antagonists</u></b>   |
| -citide                                    | see <i>tide</i>   |
| -codar                                     | see <i>dar</i>  |
| -cridar                                    | see <i>dar</i>  |
| -corvir                                    | see <i>vir</i>  |
| <b><u>-covatein</u></b>                    | <b><u>see -vatein</u></b>   |
| -dacin                                     | antibiotics, DNA gyrase and topoisomerase IV inhibitors   |
| <i>dar</i><br>-codar<br>-cridar<br>-spodar | drugs used in multidrug resistance<br>pipercolinate derivatives<br>acridinecarboxamide derivatives<br>ciclosporin D derivatives         |
| -depsin                                    | depsipeptide derivatives  |
| -desivir                                   | see <i>vir</i>  |
| -dirsen                                    | see <i>-rsen</i>  |
| -drimer                                    | see <i>mer</i>  |
| -dutide                                    | see <i>-tide</i>  |
| -ectedin                                   | ecteinascidin derivatives   |
| -fadine                                    | monoamine transport inhibitors  |
| -farnib                                    | farnesyl transferase inhibitors   |
| -fibatide                                  | see <i>tide</i>   |
| -forant                                    | histamine H <sub>4</sub> receptor antagonists   |
| -fotase                                    | see <i>-ase</i>   |
| -fulven                                    | antineoplastics, acylfulvene derivatives  |

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|---|---|
| <i>-gapil</i>                                     | neuronal apoptosis inhibitors, GAPDH  |
| <i>-gaptide</i>                                   | see <i>-tide</i>  |
| <i>-glanstat</i>                                  | see <i>stat</i>   |
| <i>-gli</i><br><i>-gliatin</i><br><i>-glipron</i> | <i>antihyperglycaemics</i><br>glucokinase activators<br>glucagon-like peptide 1 receptor (GLP1R) agonists |
| <i>-gratinib</i>                                  | see <i>-tinib</i>   |
| <i>-grel</i><br><i>-grelor</i>                    | <i>platelet aggregation inhibitors</i><br>P2Y12 purinoceptor (ADP-glucose receptor) antagonists           |
| <i>-imepodib</i>                                  | inosine monophosphate dehydrogenase inhibitors  |
| <i>-inapant</i>                                   | inhibitors of inhibition-of-apoptosis proteins (IAPs)   |
| <i>-kalner</i>                                    | openers of calcium-activated (maxi-K) K <sup>+</sup> -channels  |
| <i>-leptin(e)</i>                                 | leptin derivatives  |
| <i>-liase</i>                                     | see <i>-ase</i>   |
| <i>-lintide</i>                                   | see <i>-tide</i>  |
| <i>-loride</i>                                    | epithelial sodium channel (ENaC) inhibitors, amiloride derivatives  |
| <i>mab</i><br><i>-ami-</i>                        | <i>monoclonal antibodies</i><br>serum amyloid protein (SAP)/amyloidosis                                   |
| <i>-melagon</i>                                   | non-peptidic melanocortin receptor agonists   |
| <i>-melanotide</i>                                | see <i>-tide</i>  |
| <b><i>-melteon</i></b>                            | <b>melatonin receptor agonists</b>  |
| <i>-menib</i>                                     | menin interaction inhibitors  |
| <i>-mer</i><br><i>-drimer</i>                     | <i>polymers</i><br>dendritic polymers (dendrimers)  |
| <i>-metkib</i>                                    | MET (mesenchymal epithelial transition factor) kinase inhibitors  |

|                              |  |
|------------------------------|--|
| <i>-moren</i>                | non-peptidic growth hormone secretagogues  |
| <i>-nesib</i>                | kinesin inhibitors   |
| <i>-neurin</i>               | neurotrophins  |
| <i>-nexor</i>                | nuclear export inhibitors  |
| <i>-ngitide</i>              | see <i>-tide</i>   |
| <i>-nil</i><br><i>-punil</i> | <i>benzodiazepine receptor antagonists/agonists</i><br>mitochondrial benzodiazepine receptor (MBR)-selective agonists, also partial or inverse agonists (purine derivatives) |
| <i>-nod</i>                  | nitrogen monoxide (nitric oxide, NO) donors  |
| <i>-noflast</i>              | see <i>-ast</i>  |
| <i>-nontrine</i>             | phosphodiesterase 9 (PDE9) inhibitors  |
| <b><i>-nosine</i></b>        | <b>nucleoside analogues, antivirals or antineoplastics</b>   |
| <i>-opran</i>                | $\mu$ -opioid receptor (MOR/MOP) antagonists   |
| <i>-osuran</i>               | urotensin receptor antagonists   |
| <i>-otilate</i>              | hepatoprotectants, di(propan-2-yl-2-(2 <i>H</i> -1,3-dithiol-2-ylidene)propanedioate and analogues   |
| <i>-parantag</i>             | antagonists of heparin, including low-molecular weight heparins (LMWH)   |
| <i>-paxar</i>                | protease activated receptor type 1 (PAR1) antagonists  |
| <i>-pertin</i>               | glycine transporter inhibitors   |
| <i>-pirdine</i>              | serotonin receptor antagonists   |
| <i>-pivot</i>                | pyruvate kinase activators   |
| <i>-plam</i>                 | SMN2 gene splicing modulators (small molecules)  |
| <i>-plasinin</i>             | inhibitors of plasminogen activator inhibitors-type 1 (PAI-1)  |
| <i>-plenib</i>               | Spleen tyrosine kinase (SYK) inhibitors  |

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| <i>-podect</i>  | phosphodiesterase 10A (PDE10A) inhibitors  |
| <i>-prinin</i>  | nootropic agents, purine derivatives   |
| <b><u>-protafib</u></b>   | <b><u>protein tyrosine phosphatase (PTP) inhibitors</u></b>  |
| <i>-punil</i>   | see <i>nil</i>   |
| <i>-ralstat</i>   | see <i>-stat/-stat</i>   |
| <b>-rextor</b>  | <b>orexin receptor agonists</b>  |
| <i>-rocin</i>   | aminoacyl-tRNA synthetase inhibitors   |
| <b><u>-rogant</u></b>   | <b><u>retinoic acid receptor-related orphan receptor gamma (ROR<math>\gamma</math>) antagonists and inverse agonists</u></b>   |
| <i>-rpaccept</i>  | see <i>-cept</i>   |
| <i>-rsen</i><br><i>-dirsen</i>  | <i>antisense oligonucleotides</i><br>splice-switching oligonucleotides, muscular dystrophies   |
| <i>-scein(e)</i>  | fluorescent imaging agents, fluorescein derivatives  |
| <i>-saicin</i>  | analgesics, capsaicin analogues  |
| <i>-setrag</i>  | serotonin (5-HT <sub>3/4</sub> ) receptor agonists, prokinetics  |
| <i>-sopasem</i>   | superoxide dismutase (SOD) mimetics  |
| <i>-spodar</i>  | see <i>dar</i>   |
| <i>-stat/-stat</i><br><i>-costat</i><br><i>-dodstat</i><br><i>-drostat</i><br><i>-glanstat</i><br><i>-ralstat</i><br><i>-taxestat</i> | <i>enzyme inhibitors</i><br>acetyl-CoA carboxylase inhibitors<br>dihydroorotate dehydrogenase (DHODH) inhibitors<br>aldosterone and cortisol synthesis inhibitors<br>prostaglandin synthase inhibitors<br>kallikrein inhibitors<br><b>autotaxin inhibitors</b> |
| <b>-stinag</b>  | <b>stimulator of interferon genes (STING) agonists, antineoplastics</b>  |
| <i>-sulind</i>  | antineoplastics, sulindac metabolites  |
| <i>-tacicept</i>  | see <i>-cept</i>   |

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|---|--|
| <i>-taxestat</i>  | see -stat  |
| <i>-terkib</i>  | ERK (extracellular signal-regulated kinase) inhibitors   |
| <i>-terone</i><br><i>-teronel</i>   | <i>antiandrogens</i><br>non-steroid antiandrogens  |
| <i>-texafin</i>   | texaphyrin derivatives   |
| <i>-tide</i><br><i>-citide</i><br><i>-fibatide</i><br><i>-gaptide</i><br><i>-lintide</i><br><i>-melanotide</i><br><i>-ngitide</i><br><i>-votide</i> | <i>peptides and glycopeptides</i><br>cardiovascular<br>platelet aggregation inhibitors (GPIIb/IIIa receptor antagonists)<br>gap junction protein channel modulators<br>amylin derivatives and analogues<br>melanocortin receptor agonists<br>angiogenesis related peptides<br>PSMA (prostate-specific membrane antigen, glutamate carboxypeptidase 2)-binding peptides |
| <b><i>-tifan</i></b>  | <b>hypoxia inducible factor (HIF)-2<math>\alpha</math> (HIF-2 <math>\alpha</math>) inhibitors</b>  |
| <i>-tinib</i><br><i>-batinib</i><br><i>-gratinib</i>  | <i>tyrosine kinase inhibitors</i><br>BCR-ABL kinase inhibitors<br>fibroblast growth factor receptor (FGFR) inhibitors  |
| <i>-toran</i>   | <i>toll-like receptor antagonists</i>  |
| <i>-trelvir</i>   | see <i>vir</i>   |
| <i>-vancin</i>  | <i>vancomycin</i> related compounds  |
| <b><u><i>-vatein</i></u></b><br><b><u><i>-covatein</i></u></b>  | <b><u><i>protein vaccine substances</i></u></b><br><b><u>coronavirus</u></b>   |
| <i>vir</i><br><i>-atovir</i><br><i>-corvir</i><br><i>-desivir</i><br><b><u><i>-trelvir</i></u></b><br><i>-virenz</i><br><i>-virimat</i>             | <i>antivirals (undefined group)</i><br>RSV fusion protein inhibitors<br>core protein (Cp) inhibitors<br>RNA polymerase inhibitors, adenosine analogues, antivirals<br><b><u>antiviral 3CL protease inhibitors</u></b><br>benzoxazinone derivatives<br>antivirals, disruptors of viral maturation   |
| <i>-votide</i>  | see <i>tide</i>  |
| <i>-xian</i>  | blood coagulation factor XI inhibitors   |

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## Bifunctional proteolysis-targeting substances concept

The scheme will be as follows: *-deg* (+ a vowel if necessary)- and the stem of the target (see below)

| INN (PL)(RL)                     | construction   | target   |
|----------------------------------|----------------|--|
| <i>bavdegalutamide</i> (125)(87) | -dega-lutamide | androgen receptor                                  |
| <i>luxdegalutamide</i> (129)(91) | -dega-lutamide | androgen receptor                                  |
| <i>vepdegestrant</i> (127)(89)   | -deg-estrant   | estrogen receptor                                  |
| <i>lirodegimod</i> (130)         | -deg-imod      | signal transducer and activator of transcription 3 |
| <i>sendegobresib</i> (130)       | -dego-bresib   | bromodomain-containing protein                     |
| <i>setidegrasib</i> (130)        | -deg-rasib     | G12D-mutated GTPase KRas                           |

### Oher type of targeted protein degraders, thalidomide derivatives:

The scheme will be as follows:

Under the *-domide* stem (for *antineoplastics, thalidomide derivatives*), the infix will indicate the target

| INN (PL)(RL)   | construction | target   |
|--|--------------|--|
| <i>eragidomide</i> (127)(87)<br><i>sontigidomide</i> (129)(91) | -gi-domide   | G1 to S phase transition protein 1 (GSPT1)         |
| <i>zomiradomide</i> (130)                                      | -ira-domide  | interleukin-1 receptor-associated kinase 4 (IRAK4) |

**under (c) category:** *mezigdomide* (125)(87), *golcadomide* (127)(89), *cemsidomide* (128)(90)

\* \* \*

### Deuterated compounds

The prefix or infix *deu-/-deu-* is used for the designation of deuterated compounds. The prefix *deu-* is preferred in the case of an already existing name, e.g. *tolperisone* (28)(13) and *deutolperisone* (92)(54). When no parent compound has already been named, the infix *-deu-* may then be preferred such as in *vodudeutant* (127)(89), etc..

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