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		<b>A61P 31/12 (2006.01)</b>
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## Norwegian Industrial Property Office

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(73)	Proprietor	Gilead Pharmasset LLC, 333 Lakeside Drive, Foster City, CA 94404, US-USA
(72)	Inventor	GUO, Hongyan, 333 Lakeside Drive, Foster City, California 94404, US-USA KATO, Darryl, 333 Lakeside Drive, Foster City, California 94404, US-USA KIRSCHBERG, Thorstens A., 333 Lakeside Drive, Foster City, California 94404, US-USA LIU, Hongtae, 333 Lakeside Drive, Foster City, California 94404, US-USA LINK, John O., 333 Lakeside Drive, Foster City, California 94404, US-USA MITCHELL, Michael L., 333 Lakeside Drive, Foster City, California 94404, US-USA PARRISH, Jay P., 333 Lakeside Drive, Foster City, California 94404, US-USA SQUIRES, Neil, 333 Lakeside Drive, Foster City, California 94404, US-USA SUN, Jianyu, 333 Lakeside Drive, Foster City, California 94404, US-USA

TAYLOR, James, 333 Lakeside Drive, Foster City, California 94404, US-USA  
 BACON, Elizabeth M., 333 Lakeside Drive, Foster City, California 94404, US-USA  
 CANALES, Eda, 333 Lakeside Drive, Foster City, California 94404, US-USA  
 CHO, Aesop, 333 Lakeside Drive, Foster City, California 94404, US-USA  
 COTTELL, Jeromy J., 333 Lakeside Drive, Foster City, California 94404, US-USA  
 DESAI, Manoj C., 333 Lakeside Drive, Foster City, California 94404, US-USA  
 HALCOMB, Randall L., 333 Lakeside Drive, Foster City, California 94404, US-USA  
 KRYGOWSKI, Evan S., 333 Lakeside Drive, Foster City, California 94404, US-USA  
 LAZERWITH, Scott E., 333 Lakeside Drive, Foster City, California 94404, US-USA  
 LIU, Qi, 333 Lakeside Drive, Foster City, California 94404, US-USA  
 MACKMAN, Richard, 333 Lakeside Drive, Foster City, California 94404, US-USA  
 PYUN, Hyung-Jung, 333 Lakeside Drive, Foster City, California 94404, US-USA  
 SAUGIER, Joseph H., 333 Lakeside Drive, Foster City, California 94404, US-USA  
 TRENKLE, James D., 333 Lakeside Drive, Foster City, California 94404, US-USA  
 TSE, Winston C., 333 Lakeside Drive, Foster City, California 94404, US-USA  
 VIVIAN, Randall W., 333 Lakeside Drive, Foster City, California 94404, US-USA  
 SCHROEDER, Scott D., 333 Lakeside Drive, Foster City, California 94404, US-USA  
 WATKINS, William J., 333 Lakeside Drive, Foster City, California 94404, US-USA  
 XU, Lianhong, 333 Lakeside Drive, Foster City, California 94404, US-USA  
 YANG, Zheng-Yu, 333 Lakeside Drive, Foster City, California 94404, US-USA  
 KELLAR, Terry, 333 Lakeside Drive, Foster City, California 94404, US-USA  
 SHENG, Xiaoning, 333 Lakeside Drive, Foster City, California 94404, US-USA  
 CLARKE, Michael O'Neil Hanrahan, 333 Lakeside Drive, Foster City, California 94404, US-USA  
 CHOU, Chien-hung, 333 Lakeside Drive, Foster City, California 94404, US-USA  
 GRAUPE, Michael, 333 Lakeside Drive, Foster City, California 94404, US-USA  
 JIN, Haolun, 333 Lakeside Drive, Foster City, California 94404, US-USA  
 McFADDEN, Ryan, 333 Lakeside Drive, Foster City, California 94404, US-USA  
 MISH, Michael R., 333 Lakeside Drive, Foster City, California 94404, US-USA  
 METOBO, Samuel E., 333 Lakeside Drive, Foster City, California 94404, US-USA  
 PHILLIPS, Barton W., 333 Lakeside Drive, Foster City, California 94404, US-USA  
 VENKATARAMANI, Chandrasekar, 333 Lakeside Drive, Foster City, California 94404, US-USA  
 KIM, Chuong U., 333 Lakeside Drive, Foster City, California 94404, US-USA

(74) Agent or Attorney

TANDBERG INNOVATION AS, Postboks 1570 Vika, 0118 OSLO, Norge

(54) Title **ANTIVIRAL COMPOUNDS**

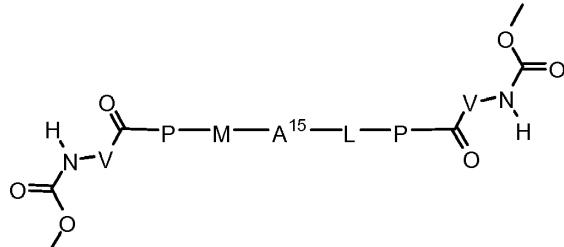
(56) References

Cited: WO-A1-2008/144380, WO-A1-2009/020828, WO-A2-2008/021928, WO-A1-2010/017401, WO-A2-2008/021927, WO-A1-2009/102568

Enclosed is a translation of the patent claims in Norwegian. Please note that as per the Norwegian Patents Acts, section 66i the patent will receive protection in Norway only as far as there is agreement between the translation and the language of the application/patent granted at the EPO. In matters concerning the validity of the patent, language of the application/patent granted at the EPO will be used as the basis for the decision. The patent documents published by the EPO are available through Espacenet (<http://worldwide.espacenet.com>) or via the search engine on our website here: <https://search.patentstyret.no/>

## Patentkrav

1. En forbindelse med formel:



5

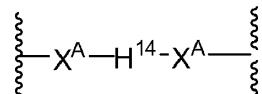
hvor:

V er alkyl;

L er benzimidazolyl;

M er en 5-leddet heteroaryl ring;

10 A<sup>15</sup> er:



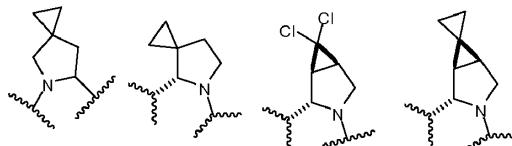
hver H<sup>14</sup> er uavhengig en fusjonert umettet, delvis umettet eller mettet trisyklist karbosyklus som er eventuelt substituert med én eller flere grupper uavhengig valgt fra R<sup>A1</sup> og R<sup>A3</sup>; og

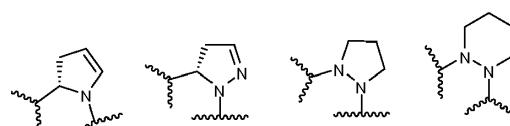
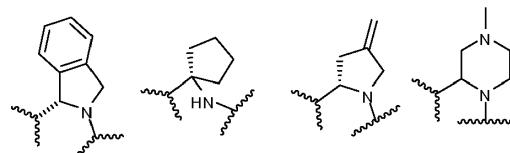
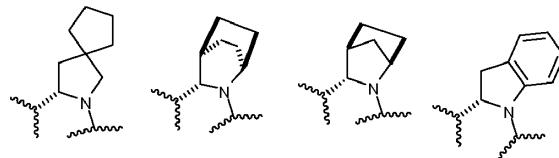
15 hver X<sup>A</sup> er uavhengig O, NR, SO, SO<sub>2</sub>, C(=O), NRC(=O), C(=O)NR, CR=CR, NRC(=O)NR, allenyl, alkynyl, eller fraværende; hver R er uavhengig valgt fra H eller alkyl; hver R<sup>A1</sup> er uavhengig valgt fra cyano, nitro, SOR<sup>4</sup>, SO<sub>2</sub>R<sup>4</sup>, -alkylISO<sub>2</sub>R<sup>4</sup>, haloalkoksy, cyanoalkyl, NR<sup>4</sup>SO<sub>2</sub>R<sup>4</sup>, sykloalkyl, (halo)sykloalkyl, heterosyklus, (sykloalkyl)alkyl, (heterosyklus)alkyl, hvor hver alkyl, heterosyklus og sykloalkyl er eventuelt substituert 20 med én eller flere halo;

hver R<sup>A3</sup> er uavhengig valgt fra alkoksy, alkoxysalkyl, alkoxyskarbonyl, alkyl, arylalkoksy-karbonyl, karboksy, formyl, halo, haloalkyl, hydroksy, hydroksyalkyl, -NR<sup>a</sup>R<sup>b</sup>, (NR<sup>a</sup>R<sup>b</sup>)alkyl, og (NR<sup>a</sup>R<sup>b</sup>)karbonyl; R<sup>a</sup> og R<sup>b</sup> er hver uavhengig valgt fra gruppen bestående av hydrogen, alkenyl, alkyl, alkylkarbonyl, aryl, arylalkyl, arylalkylkarbonyl, 25 sykloalkyl, sykloalkylalkyl, heterosykllyl, og heterosykllylalkyl;

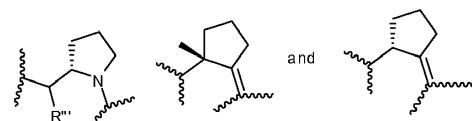
hver R<sup>4</sup> er uavhengig valgt fra H, alkyl, haloalkyl, aryl, og arylalkyl; og

hver P er uavhengig valgt fra:





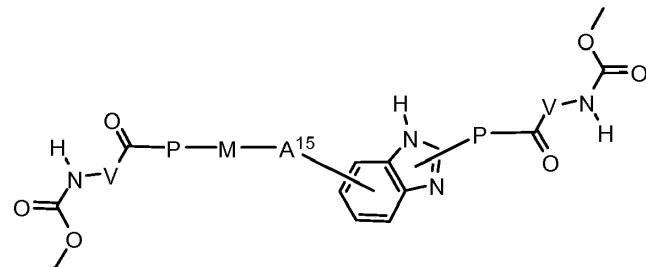
5



eller et farmasøytisk akseptabelt salt derav.

10

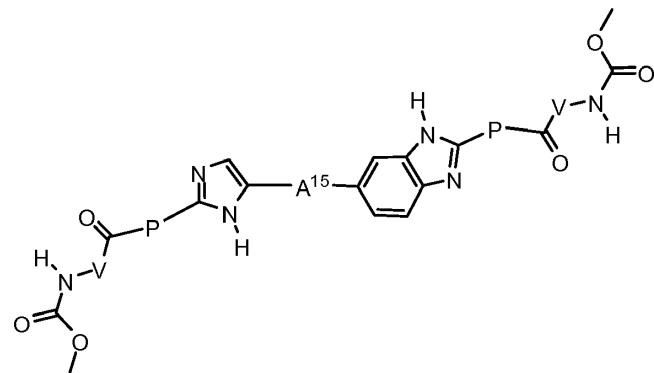
2. Forbindelse ifølge krav 1 som er:



eller et farmasøytisk akseptabelt salt derav.

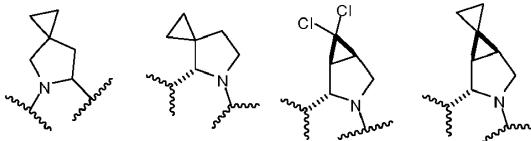
15

3. Forbindelse ifølge krav 1 som er:

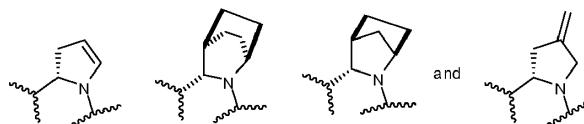


eller et farmasøytisk akseptabelt salt derav.

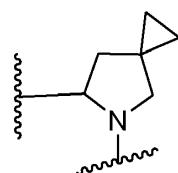
4. Forbindelse ifølge et hvilket som helst av kravene 1-3 hvor P er valgt fra:



5

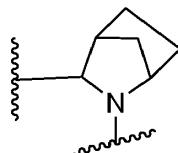


5. Forbindelse ifølge et hvilket som helst av kravene 1-3 hvor P er



10

6. Forbindelse ifølge et hvilket som helst av kravene 1-3 hvor P er



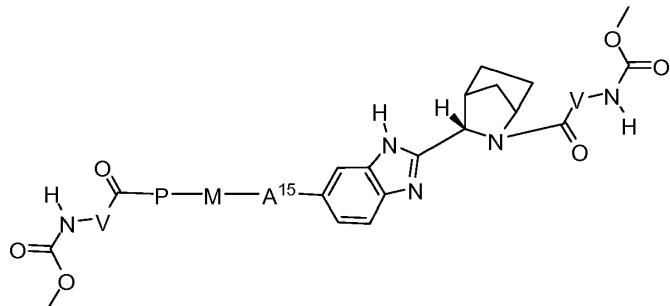
eventuelt substituert med én eller flere grupper uavhengig valgt fra  $R^{P6}$  og  $R^{P11}$ ;  
hver  $R^{P6}$  er uavhengig valgt fra alkoxsy, alkyl, aryl, halo, haloalkyl, hydroksy, og -  
15  $NR^{Pa}R^{Pb}$ , hvor alkylet kan eventuelt forme en fusjonert tre-til seks-leddet ring med  
et tilgrensende karbonatom, hvor den tre- til seks-leddede ringen er eventuelt  
substituert med én eller to alkyl grupper;  $R^{Pa}$  og  $R^{Pb}$  er hver uavhengig H, alkyl,  
aryl, eller arylalkyl; eller  $R^{Pa}$  og  $R^{Pb}$  tatt sammen med atomet til hvilket de er  
bundet danner en heterosyklaus;

20 hver  $R^{P11}$  er uavhengig valgt fra cyano, alkylsulfonyl, arylsulfonyl,  $NR^hR^h$ sulfonyl,  
heterosyklylsulfonyl, heteroarylsulfonyl, haloalkoxsy, alkoxsyalkyloksy, halo-  
alkoxsyalkyloksy, sykloalkyoxsyalkyloksy, aryloxsyalkyloksy, heteroaryloxsyalky-  
loksy, heterosyklooxsyalkyloksy,  $NR^hR^h$ alkyloksy, cyanoalkoxsy, cyanosyklo-  
alkyloksy, sykloalkyloksy, oxo, heterosyklyl,  $-NR^{hh}R^h$ ,  $(NR^hR^h)$ alkyl,  $(NR^{hh}R^h)$ -  
25 karbonyl, hvor hver  $R^h$  er uavhengig -H, alkyl, alkoxsyamino, aryl, arylalkyl,  
heterosyklaus, heterocyclsyoksy, alkenyl, alkenyloksy, alkynyl, alkoxsyalkyl,  
haloalkyl, cyanoalkyl, haloalkoxsyalkyl, aminoalkyl, alkylaminoalkyl, dialkyl-  
aminoalkyl, sulfonylalkyl; og hvis to  $R^h$  grupper er til stede kan de, sammen med  
atomet til hvilket de er bundet, danne en 4-15 leddet hetero-syklistisk ring; hvor

hver R<sup>h</sup> er uavhengig aryl, arylalkyl, heterosyklus, heterocycløyksy, alkenyloksy, alkynyl, alkoxysalkyl, haloalkyl, cyanoalkyl, haloalkoxysalkyl, aminoalkyl, alkyl-aminoalkyl, dialkylaminoalkyl, sulfonylalkyl, NR<sup>h</sup>R<sup>h</sup>sulfonyl, heteroarylsulfonyl, og -S(=O)<sub>2</sub>R<sup>h</sup>, -C(=O)R<sup>h</sup>, -C(=O)NR<sup>h</sup>R<sup>h</sup>.

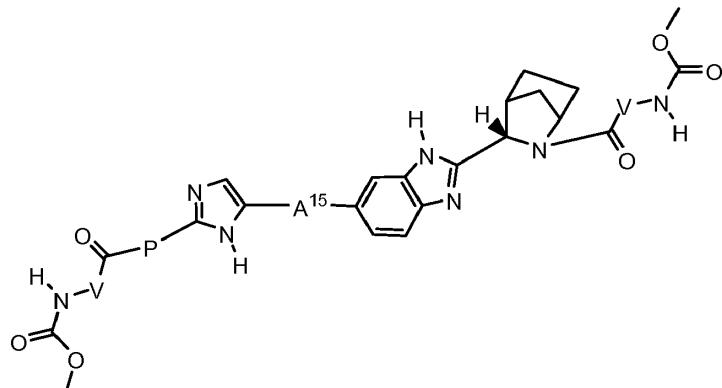
5

7. Forbindelse ifølge krav 1 som er:



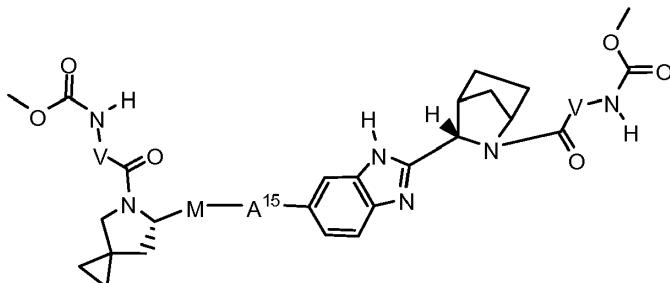
eller et farmasøytisk akseptabelt salt derav.

- 10 8. Forbindelse ifølge krav 1 som er:



eller et farmasøytisk akseptabelt salt derav.

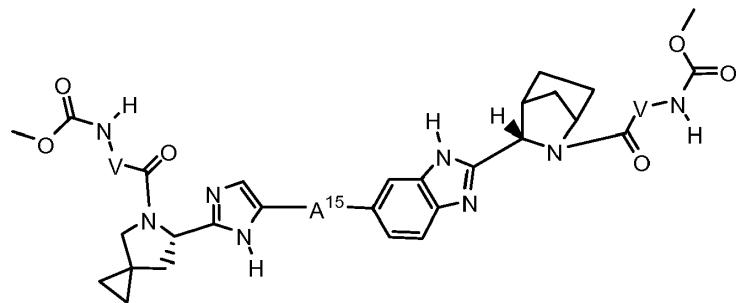
9. Forbindelse ifølge krav 1 som er:



15

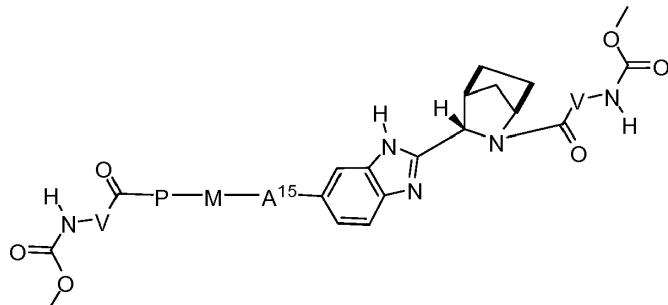
eller et farmasøytisk akseptabelt salt derav.

10. Forbindelse ifølge krav 1 som er:



eller et farmasøytisk akseptabelt salt derav.

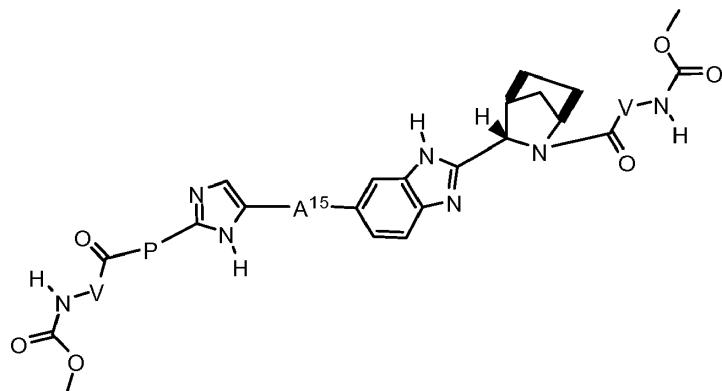
11. Forbindelse ifølge krav 1 som er:



5

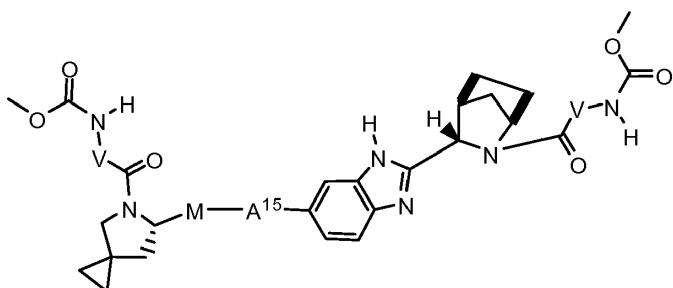
eller et farmasøytisk akseptabelt salt derav.

12. Forbindelse ifølge krav 1 som er:



10 eller et farmasøytisk akseptabelt salt derav.

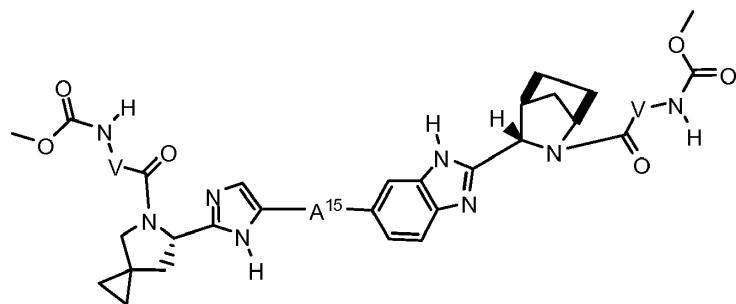
13. Forbindelse ifølge krav 1 som er:



eller et farmasøytisk akseptabelt salt derav.

15

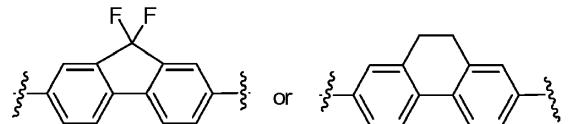
14. Forbindelse ifølge krav 1 som er:



eller et farmasøytisk akseptabelt salt derav.

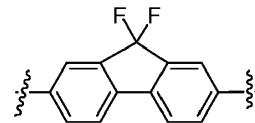
5 15. Forbindelse ifølge et hvilket som helst av kravene 1-14 hvor hver  $X^A$  er fraværende.

16. Forbindelse ifølge et hvilket som helst av kravene 1-14 hvor  $A^{15}$  er valgt fra:

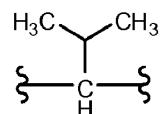


10

17. Forbindelse ifølge et hvilket som helst av kravene 1-14 hvor  $A^{15}$  er valgt fra:



18. Forbindelse ifølge et hvilket som helst av kravene 1-16 hvor hver V is:



15