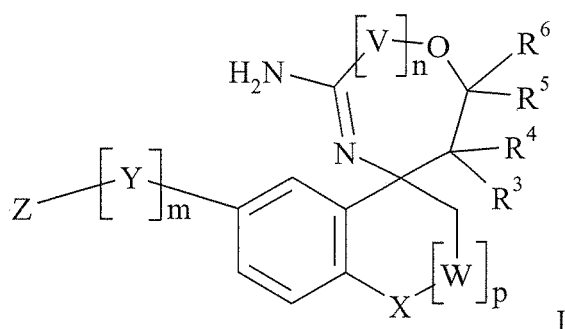


Claims

1. A compound of formula I,



wherein

- 5 V is $-CR^{7a}R^{7b}-$;
W is $-CR^{2a}R^{2b}-$;
X is $-CR^{1a}R^{1b}-$, $-O-$, $-S-$ or $-SO_2-$;
Y $-NH-C=O-$;
Z is selected from the group consisting of
- 10 i) heteroaryl,
ii) heteroaryl substituted by 1-4 substituents individually selected from R^8 ,
iii) aryl, and
iv) aryl substituted by 1-4 substituents individually selected from R^8 ,
- R^{1a} is selected from the group consisting of
- 15 i) hydrogen,
ii) halogen, and
iii) C_{1-6} -alkyl;
- R^{1b} is selected from the group consisting of
- 20 i) hydrogen,
ii) halogen, and
iii) C_{1-6} -alkyl;
- R^{2a} is selected from the group consisting of
- i) hydrogen, and
ii) C_{1-6} -alkyl;
- 25 R^{2b} is selected from the group consisting of
- i) hydrogen,
ii) aryl, and
iii) C_{1-6} -alkyl;
- or R^{2a} and R^{2b} together with the C they are attached form a heterocyclyl;
- 30 R^3 is ~~halogen, selected from the group consisting of~~
~~i) hydrogen, and~~

- ii) ~~halogen,~~
 R^4 is ~~halogen, selected from the group consisting of~~
i) ~~hydrogen, and~~
ii) ~~halogen,~~
5 R^5 is selected from the group consisting of
i) hydrogen, and
ii) C_{1-6} -alkyl,
 R^6 is selected from the group consisting of
i) hydrogen, and
10 ii) C_{1-6} -alkyl,
 R^{7a} is selected from the group consisting of
i) hydrogen, and
ii) C_{1-6} -alkyl;
 R^{7b} is selected from the group consisting of
15 i) hydrogen, and
ii) C_{1-6} -alkyl;
 R^8 is selected from the group consisting of
i) cyano,
ii) cyano- C_{1-6} -alkyl,
20 iii) halogen,
iv) halogen- C_{1-6} -alkoxy,
v) halogen- C_{1-6} -alkyl,
vi) C_{1-6} -alkoxy,
vii) C_{1-6} -alkoxy- C_{1-6} -alkyl,
25 viii) C_{2-6} -alkynyl, and
ix) C_{1-6} -alkyl;
n is 0 or 1;
m is 0 or 1;
p is 0 or 1;
30 or pharmaceutically acceptable salts thereof.

2. A compound according to claim 1, wherein

- V is $-CR^{7a}R^{7b}-$;
W is $-CR^{2a}R^{2b}-$;
X is $-CR^{1a}R^{1b}-$, -O-, -S- or $-SO_2-$;
35 Y $-NH-C=O-$;
Z is selected from the group consisting of
i) heteroaryl,
ii) heteroaryl substituted by 1-2 substituents individually selected from R^8 , and

6. A compound according to any of claims 1-3, wherein X is -O-.
7. A compound according to claim 1-2 and 6, wherein p is 1, W is $-CR^{2a}R^{2b}-$ and R^{2a} and R^{2b} are both hydrogen.
- ~~8. A compound according to any of claims 1-7, wherein R^3 is halogen.~~
- 5 ~~9.8.~~ A compound according to any of claims 1-~~8~~7, wherein R^3 is F.
- ~~10. A compound according to any of claims 1-9, wherein R^4 is halogen.~~
- ~~11.9.~~ A compound according to any of claims 1-~~10~~8, wherein R^4 is F.
- ~~12.10.~~ A compound according to any of claims 1-~~11~~9, wherein R^5 is hydrogen.
- ~~13.11.~~ A compound according to any of claims 1-~~12~~10, wherein R^6 is hydrogen.
- 10 ~~14.12.~~ A compound according to any of claims 1-~~13~~11, wherein m is 0.
- ~~15.13.~~ A compound according to any of claims 1-~~13~~11, wherein m is 1.
- ~~16.14.~~ A compound according to any of claims 1-~~15~~13, wherein Z is heteroaryl substituted by halogen or cyano.
- ~~17.15.~~ A compound according to any of claims 1-~~16~~14, selected from the group consisting of
- 15 (R)-7-(5-chloropyridin-3-yl)-5',5'-difluoro-3,4,5',6'-tetrahydro-2H-spiro[naphthalene-1,4'-[1,3]oxazin]-2'-amine,
(2'R,4R)-6'-(5-chloropyridin-3-yl)-5,5-difluoro-5,5'',6,6''-tetrahydro-4''H-dispiro[1,3-oxazine-4,4'-chromene-2',3''-pyran]-2-amine formate,
(2RS,4R)-5',5'-difluoro-2-phenyl-6-(pyrimidin-5-yl)-5',6'-dihydrospiro[chroman-4,4'-[1,3]oxazin]-2'-amine,
- 20 (2RS,4R)-6-(3,5-dichlorophenyl)-5',5'-difluoro-2-phenyl-5',6'-dihydrospiro[chroman-4,4'-[1,3]oxazin]-2'-amine,
(2RS,4R)-6-(3,5-dichlorophenyl)-6',6'-difluoro-2-phenyl-6',7'-dihydro-2'H-spiro[chroman-4,5'-[1,4]oxazepin]-3'-amine,
- 25 (2RS,4R)-6-(5-chloropyridin-3-yl)-5',5'-difluoro-2-phenyl-5',6'-dihydrospiro[chroman-4,4'-[1,3]oxazin]-2'-amine,
(2RS,4R)-6-(5-chloropyridin-3-yl)-6',6'-difluoro-2-phenyl-6',7'-dihydro-2'H-spiro[chroman-4,5'-[1,4]oxazepin]-3'-amine,
- 30 (2RS,4R)-6',6'-difluoro-2-phenyl-6-(pyrimidin-5-yl)-6',7'-dihydro-2'H-spiro[chroman-4,5'-[1,4]oxazepin]-3'-amine,

~~18-16.~~ A compound according to any of claims 1-~~17~~15, selected from the group consisting of

(R)-N-(2'-amino-5',5'-difluoro-2,3,5',6'-tetrahydrospiro[indene-1,4'-[1,3]oxazine]-6-yl)-5-cyanopicolinamide,

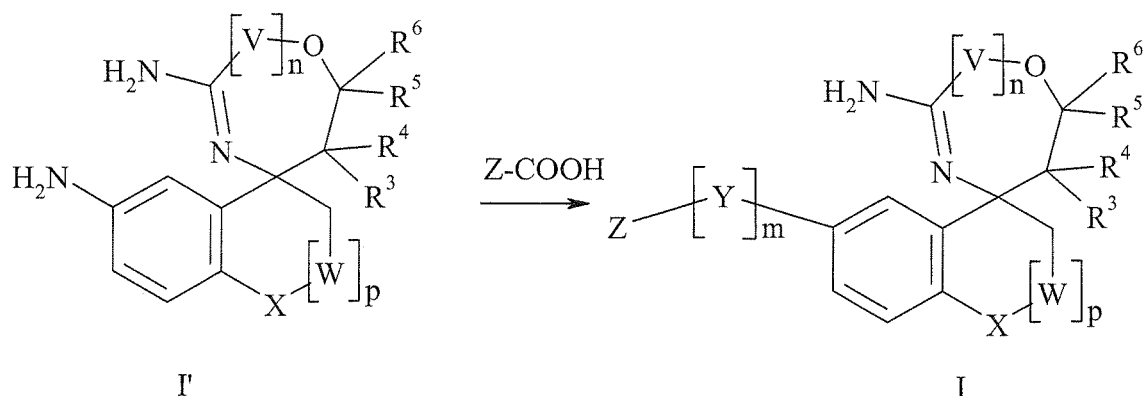
5 (R)-6-(5-chloropyridin-3-yl)-5',5'-difluoro-5',6'-dihydrospiro[chroman-4,4'-[1,3]oxazin]-2'-amine,

(R)-N-(2'-amino-5',5'-difluoro-2,3,5',6'-tetrahydrospiro[indene-1,4'-[1,3]oxazine]-6-yl)-5-chloropicolinamide, and

(R)-N-(2'-amino-5',5'-difluoro-2,3,5',6'-tetrahydrospiro[indene-1,4'-[1,3]oxazine]-6-yl)-5-fluoropicolinamide,

10 or a pharmaceutical acceptable salt thereof.

~~19-17.~~ A process for preparing a compound of formula I as defined in any of claims 1 to ~~16~~14, which process comprises reacting a compound of formula I' to a compound of formula I



15 wherein V, W, Y, Z, n, p, R¹, R², R³, R⁴, R⁵ and R⁶ are as defined in any of claim 1 to 16 and m is 1.

~~20-18.~~ A compound of formula I according to any of claims 1-~~18~~16, whenever prepared by a process as defined in claim ~~19~~17.

20 ~~21-19.~~ A compound of formula I according to any of claims 1-~~18~~-16 for use as therapeutically active substance.

~~22-20.~~ A compound of formula I according to claims 1-~~18~~-16 for the use as therapeutically active substance for the therapeutic and/or prophylactic treatment of diseases and disorders characterized by elevated β -amyloid levels and/or β -amyloid oligomers and/or β -amyloid plaques and further deposits or Alzheimer's disease.

25 ~~23-21.~~ A compound of formula I claims 1-~~18~~-16 for the use as therapeutically active substance for the therapeutic and/or prophylactic treatment of diabetes or type 2 diabetes.

~~24.22.~~ A pharmaceutical composition comprising a compound of formula I according to any of claims ~~1-18-16~~ and a pharmaceutically acceptable carrier and/or a pharmaceutically acceptable auxiliary substance.

5 ~~25.23.~~ Use of a compound of formula I according to any of claims ~~1-18-16~~ for the manufacture of a medicament for the therapeutic and/or prophylactic treatment of Alzheimer's disease.

~~26.24.~~ Use of a compound of formula I according to any of claims ~~1-18-16~~ for the manufacture of a medicament for the therapeutic and/or prophylactic treatment of diabetes.