

substituent selected from halogen, CN, C₁-C₆ alkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, C₁-C₆ fluoroalkyl or C₁-C₆ alkoxy wherein the C₁-C₆ alkoxy is optionally substituted with one or more fluorine atoms; and R¹ is hydrogen, halogen, C₁-C₃ fluoroalkyl or C₁-C₃ alkyl; or a pharmaceutically acceptable salt thereof.

5 In one embodiment the present invention provides compounds of Formula I or a pharmaceutically acceptable salt thereof for use in therapy.

The present invention further provides a pharmaceutical composition comprising a compound of Formula I or a pharmaceutically acceptable salt thereof and a pharmaceutically acceptable carrier.

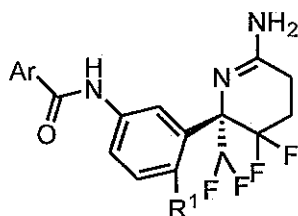
10 In one embodiment the invention provides the use of a compound of Formula I or a pharmaceutically acceptable salt thereof in the manufacture of a medicament for the treatment of neurodegenerative or cognitive disorder.

In one embodiment, the invention provides a compound of Formula I or a pharmaceutically acceptable salt thereof for use in a method for the treatment of a neurodegenerative or cognitive disorder.

15 In one embodiment, the disclosure provides a method of treating a neurodegenerative or cognitive disorder comprising administering a therapeutically effective amount of a compound of Formula I or a pharmaceutically acceptable salt thereof to a patient in need thereof.

Further embodiments of the invention are provided immediately below:

In one embodiment, the compound is of formula Ia



Formula Ia;

or a pharmaceutically acceptable salt thereof.

In one embodiment, R¹ is F or H, particularly F.

25 In one embodiment, Ar is optionally substituted with one or more F, Cl, Br, CN, C₁-C₃ alkyl, C₁-C₃ fluoroalkyl or C₁-C₃ alkoxy.

In one embodiment, Ar is optionally substituted phenyl.

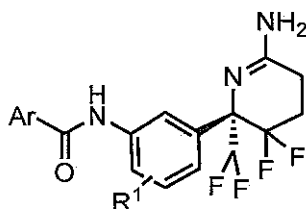
In one embodiment, Ar is optionally substituted pyridyl.

In one embodiment, Ar is optionally substituted pyrimidyl.

In one embodiment, Ar is optionally substituted pyrazinyl.

CLAIMS

1. A compound of formula I



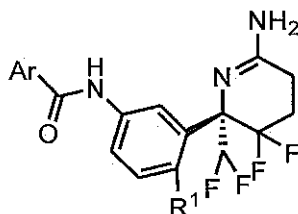
Formula I

wherein Ar is selected from the group consisting of phenyl, pyridyl, pyrimidyl, pyrazinyl, imidazolyl, pyrazolyl, thiazolyl, oxazolyl, isoxazolyl, and where the Ar is optionally substituted with one or more substituent selected from halogen, CN, C₁-C₆ alkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, C₁-C₆ fluoroalkyl or C₁-C₆ alkoxy, wherein the C₁-C₆ alkoxy is optionally substituted with one or more fluorine atoms; and

R¹ is hydrogen, halogen, C₁-C₃ fluoroalkyl or C₁-C₃ alkyl;

or a pharmaceutically acceptable salt thereof.

2. A compound according to claim 1, wherein the compound is of formula Ia



Formula Ia;

or a pharmaceutically acceptable salt thereof.

3. The compound according to claim 1 or 2, wherein R¹ is F or H.
4. The compound according to claim 1 or 2, wherein Ar is optionally substituted with one or more F, Cl, Br, CN, C₁-C₃ alkyl, C₁-C₃ fluoroalkyl or C₁-C₃ alkoxy.
5. The compound according to anyone of claims 1-4, wherein Ar is optionally substituted pyridyl.
6. The compound according to anyone of claims 1-4, wherein Ar is optionally substituted pyrimidyl.

(*S*)-*N*-(3-(6-amino-2-(difluoromethyl)-3,3-difluoro-2,3,4,5-tetrahydropyridin-2-yl)-4-fluorophenyl)-5-(methoxy-d3)pyrazine-2-carboxamide;
or a pharmaceutically acceptable salt thereof.

11. A pharmaceutical composition comprising a compound according to anyone of claims 1-10 and a pharmaceutically acceptable carrier.
12. The use of a compound according to anyone of claims 1-10 for the manufacture of a medicament for treating a disease selected from Alzheimer's disease (familial or sporadic), preclinical Alzheimer's disease, prodromal Alzheimer's disease, mild cognitive impairment, Down's syndrome and cerebral amyloid angiopathy.
13. A compound according to anyone of claims 1-10 for use in therapy.
14. A compound according to anyone of claims 1-10 for use in the treatment of a disease selected from Alzheimer's disease (familial or sporadic), preclinical Alzheimer's disease, prodromal Alzheimer's disease, mild cognitive impairment, Down's syndrome and cerebral amyloid angiopathy.