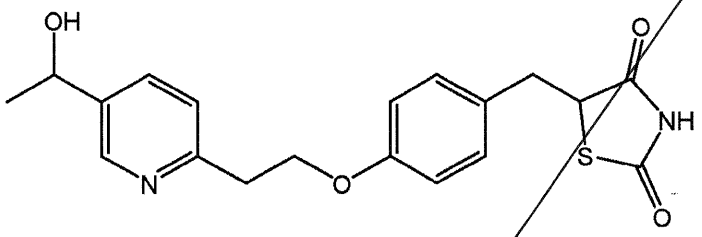
CLAIMS

1. A compound of formula (**1**) or a pharmaceutically acceptable salt thereof for use in the treatment or prevention of central nervous system disorders



(**1**).

2. A compound of formula (**1**) selected from compounds (**2**) to (**5**):

(**2**) (R)-5-(4-(2-(5-((R)-1-hydroxyethyl)pyridine-2-yl)ethoxy)benzyl)thiazolidine-2,4-dione;

(**3**) (R)-5-(4-(2-(5-((S)-1-hydroxyethyl)pyridine-2-yl)ethoxy)benzyl)thiazolidine-2,4-dione;

(**4**) (S)-5-(4-(2-(5-((R)-1-hydroxyethyl)pyridine-2-yl)ethoxy)benzyl)thiazolidine-2,4-dione; and

(**5**) (S)-5-(4-(2-(5-((S)-1-hydroxyethyl)pyridine-2-yl)ethoxy)benzyl)thiazolidine-2,4-dione;

or a pharmaceutically acceptable salt thereof.

3. Compound according to claim 2, wherein no more than 1 % of the total number of hydrogen atoms per mole of compound are in the form of the ^{2}H isotope.

4. A compound for use according to claim 1 selected from compounds (**2**) to (**5**):

(**2**) (R)-5-(4-(2-(5-((R)-1-hydroxyethyl)pyridine-2-yl)ethoxy)benzyl)thiazolidine-2,4-dione;

(**3**) (R)-5-(4-(2-(5-((S)-1-hydroxyethyl)pyridine-2-yl)ethoxy)benzyl)thiazolidine-2,4-dione;

(**4**) (S)-5-(4-(2-(5-((R)-1-hydroxyethyl)pyridine-2-yl)ethoxy)benzyl)thiazolidine-2,4-dione; and

(**5**) (S)-5-(4-(2-(5-((S)-1-hydroxyethyl)pyridine-2-yl)ethoxy)benzyl)thiazolidine-2,4-dione;

or a pharmaceutically acceptable salt thereof.

5. A mixture of one or more of the compounds defined in claim 4 for use in the treatment or prevention of central nervous system disorders.

6. A mixture for use according to claim 5 selected from the group consisting of:
(a) Mixtures comprising compounds (**2**) and (**3**);
(b) Mixtures comprising compounds (**4**) and (**5**);
(c) Mixtures comprising compounds (**2**) and (**4**); and
(d) Mixtures comprising compounds (**3**) and (**5**).

7. A compound as defined in claim 2 to 3 or a mixture of compounds as defined in anyone of claims 5 to 6 for use as a medicament.

8. A compound or mixture of compounds for use according to any one of claims 1 and 4 to 7 wherein the disorder is selected from neurodegenerative diseases, cerebrovascular diseases, seizures, epilepsy, viral diseases, neuroinflammatory diseases, brain tumours organic acidemias, fatty acid disorders and genetic mitochondrial disorders.

9. A compound or mixture of compounds for use according to claim 8 wherein the disorder is a neurodegenerative disease.

10. A compound for use according to claim 9 wherein the disorder is Alzheimer's disease, Huntington's chorea, Parkinson's disease or multiple sclerosis.

11. A compound or mixture of compounds for use according to claim 8 or 9 wherein the disorder is a leukodystrophy such as adrenoleukodystrophy (ALD).

12. A compound or mixture of compounds for use according to claim 8 wherein the central nervous system disorder is a cerebrovascular disease.

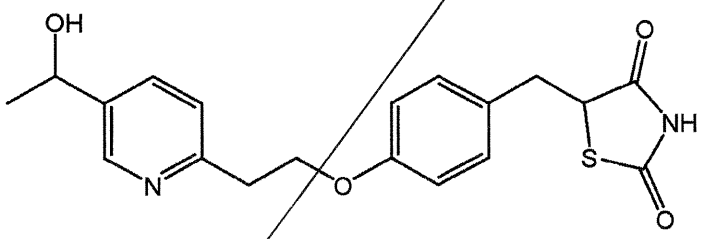
13. A compound or mixture of compounds for use according to anyone of claims 1 and 4 to 12 wherein the patient is also administered another therapeutic agent.

14. A compound or mixture of compounds for use according to claim 13 wherein the compound or mixture of compounds and said other therapeutic agent are provided in combination.

15. A pharmaceutical composition comprising a compound as defined in anyone of claims 1 to 3 or a mixture as defined in anyone of claims 5 to 6.

16. A pharmaceutical composition according to claim 15 for use in the treatment or prevention of central nervous system disorders.

17. Use of a compound of formula (**1**) or a pharmaceutically acceptable salt thereof for the manufacture of a medicament for the treatment or prevention of central nervous system disorders



(**1**).

18. Use of a compound of formula (**1**) according to claim 17, which is selected from compounds (**2**) to (**5**):

(**2**) (R)-5-(4-(2-(5-((R)-1-hydroxyethyl)pyridine-2-yl)ethoxy)benzyl)thiazolidine-2,4-dione;

(**3**) (R)-5-(4-(2-(5-((S)-1-hydroxyethyl)pyridine-2-yl)ethoxy)benzyl)thiazolidine-2,4-dione;

(**4**) (S)-5-(4-(2-(5-((R)-1-hydroxyethyl)pyridine-2-yl)ethoxy)benzyl)thiazolidine-2,4-dione; and

(**5**) (S)-5-(4-(2-(5-((S)-1-hydroxyethyl)pyridine-2-yl)ethoxy)benzyl)thiazolidine-2,4-dione;

or a pharmaceutically acceptable salt thereof.

19. Use of a mixture of one or more of the compounds defined in claim 18 for the manufacture of a medicament for the treatment or prevention of central nervous system disorders.

20. Use of a mixture according to claim 19, which is selected from the group consisting of:
    (a) Mixtures comprising compounds (**2**) and (**3**);
    (b) Mixtures comprising compounds (**4**) and (**5**);
    (c) Mixtures comprising compounds (**2**) and (**4**); and
    (d) Mixtures comprising compounds (**3**) and (**5**).

21. Use of a compound or mixture of compounds according to any one of claims 17 to 20 wherein the disorder is selected from neurodegenerative diseases, cerebrovascular diseases, seizures, epilepsy, viral diseases, neuroinflammatory diseases, brain tumours, organic acidemias, fatty acid disorders and genetic mitochondrial disorders.

22. Use of a compound or mixture of compounds according to claim 21 wherein the disorder is a neurodegenerative disease.

23. Use of a compound according to claim 22 wherein the disorder is Alzheimer's disease, Huntington's chorea, Parkinson's disease or multiple sclerosis.

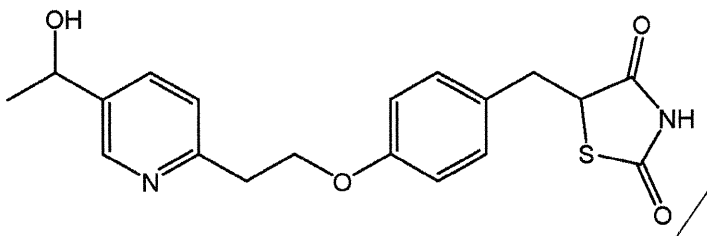
24. Use of a compound or mixture of compounds according to claim 21 or 22 wherein the disorder is a leukodystrophy such as adrenoleukodystrophy (ALD).

25. Use of a compound or mixture of compounds according to claim 21 wherein the central nervous system disorder is a cerebrovascular disease.

26. Use of a compound or mixture of compounds for use according to anyone of claims 17 to 25 wherein the patient is also administered another therapeutic agent.

27. Use of a compound or mixture of compounds for use according to claim 26 wherein the compound or mixture of compounds and said other therapeutic agent are provided in combination.

28. A method of treatment or prevention of central nervous system disorders comprising administering to a subject in need thereof an effective amount of a compound of formula (**1**) or a pharmaceutically acceptable salt thereof



(**1**).

29. The method according to claim 28, wherein the compound of formula (**1**) is selected from compounds (**2**) to (**5**):

(**2**) (R)-5-(4-(2-(5-((R)-1-hydroxyethyl)pyridine-2-yl)ethoxy)benzyl)thiazolidine-2,4-dione;

(**3**) (R)-5-(4-(2-(5-((S)-1-hydroxyethyl)pyridine-2-yl)ethoxy)benzyl)thiazolidine-2,4-dione;

(**4**) (S)-5-(4-(2-(5-((R)-1-hydroxyethyl)pyridine-2-yl)ethoxy)benzyl)thiazolidine-2,4-dione; and

(**5**) (S)-5-(4-(2-(5-((S)-1-hydroxyethyl)pyridine-2-yl)ethoxy)benzyl)thiazolidine-2,4-dione;

or a pharmaceutically acceptable salt thereof.

30. A method of treatment or prevention of central nervous system disorders comprising administering to a subject in need thereof an effective amount of a mixture of one or more of the compounds defined in claim 29.

31. The method according to claim 30, wherein the mixture is selected from the group consisting of:

(e) Mixtures comprising compounds (**2**) and (**3**);

(f) Mixtures comprising compounds (**4**) and (**5**);

(g) Mixtures comprising compounds (**2**) and (**4**); and

(h) Mixtures comprising compounds (**3**) and (**5**).

32. The method according to any one of claims 28 to 31 wherein the disorder is selected from neurodegenerative diseases, cerebrovascular diseases, seizures, epilepsy, viral diseases, neuroinflammatory diseases, brain tumours, organic acidemias, fatty acid disorders and genetic mitochondrial disorders.

33. The method according to claim 32 wherein the disorder is a neurodegenerative disease.

34. The method according to claim 33 wherein the disorder is Alzheimer's disease, Huntington's chorea, Parkinson's disease or multiple sclerosis.

35. The method according to claim 32 or 33 wherein the disorder is a leukodystrophy such as adrenoleukodystrophy (ALD).

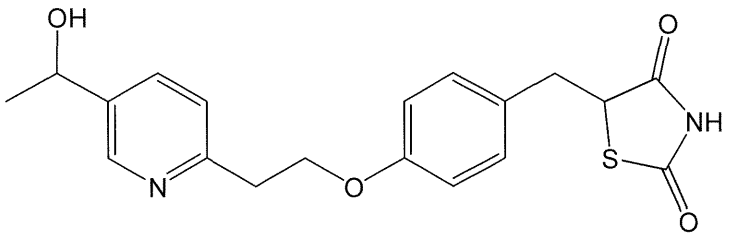
36. The method according to claim 32 wherein the central nervous system disorder is a cerebrovascular disease.

37. The method according to anyone of claims 28 to 36 wherein the patient is also administered another therapeutic agent.

38. The method according to claim 37 wherein the compound or mixture of compounds and said other therapeutic agent are provided in combination.

CLAIMS

1. A compound of formula (**1**) or a pharmaceutically acceptable salt thereof for use in the treatment or prevention of central nervous system disorders



(**1**).

2. A compound of formula (**1**) selected from compounds (**2**) to (**5**):
(**2**) (R)-5-(4-(2-(5-((R)-1-hydroxyethyl)pyridine-2-yl)ethoxy)benzyl)thiazolidine-2,4-dione;
(**3**) (R)-5-(4-(2-(5-((S)-1-hydroxyethyl)pyridine-2-yl)ethoxy)benzyl)thiazolidine-2,4-dione;
(**4**) (S)-5-(4-(2-(5-((R)-1-hydroxyethyl)pyridine-2-yl)ethoxy)benzyl)thiazolidine-2,4-dione; and
(**5**) (S)-5-(4-(2-(5-((S)-1-hydroxyethyl)pyridine-2-yl)ethoxy)benzyl)thiazolidine-2,4-dione;
or a pharmaceutically acceptable salt thereof.

3. Compound according to claim 2, wherein no more than 1 % of the total number of hydrogen atoms per mole of compound are in the form of the ^{2}H isotope.

4. A compound for use according to claim 1 selected from compounds (**2**) to (**5**):
(**2**) (R)-5-(4-(2-(5-((R)-1-hydroxyethyl)pyridine-2-yl)ethoxy)benzyl)thiazolidine-2,4-dione;
(**3**) (R)-5-(4-(2-(5-((S)-1-hydroxyethyl)pyridine-2-yl)ethoxy)benzyl)thiazolidine-2,4-dione;
(**4**) (S)-5-(4-(2-(5-((R)-1-hydroxyethyl)pyridine-2-yl)ethoxy)benzyl)thiazolidine-2,4-dione; and
(**5**) (S)-5-(4-(2-(5-((S)-1-hydroxyethyl)pyridine-2-yl)ethoxy)benzyl)thiazolidine-2,4-dione;
or a pharmaceutically acceptable salt thereof.

5. A mixture of one or more of the compounds defined in claim 4 for use in the treatment or prevention of central nervous system disorders.

6. A mixture for use according to claim 5 selected from the group consisting of:
   (a) Mixtures comprising compounds (**2**) and (**3**);
   (b) Mixtures comprising compounds (**4**) and (**5**);
   (c) Mixtures comprising compounds (**2**) and (**4**); and
   (d) Mixtures comprising compounds (**3**) and (**5**).

7. A compound as defined in claim 2 to 3 or a mixture of compounds as defined in anyone of claims 5 to 6 for use as a medicament.

8. A compound or mixture of compounds for use according to any one of claims 1 and 4 to 7 wherein the disorder is selected from neurodegenerative diseases, cerebrovascular diseases, seizures, epilepsy, viral diseases, neuroinflammatory diseases, brain tumours organic acidemias, fatty acid disorders and genetic mitochondrial disorders.

9. A compound or mixture of compounds for use according to claim 8 wherein the disorder is a neurodegenerative disease.

10. A compound for use according to claim 9 wherein the neurodegenerative disease is Alzheimer's disease, Huntington's chorea, Parkinson's disease, amyotrophic lateral sclerosis (ALS), degenerative ataxias, multiple sclerosis, multiple system atrophy, leukodystrophy, spinal muscular atrophy (SMA), primary lateral sclerosis (PLS), progressive bulbar palsy, or pseudobulbar palsy.

11. A compound or mixture of compounds for use according to claim 10, wherein the leukodystrophy is adrenoleukodystrophy (ALD).

12. A compound or mixture of compounds for use according to claim 8 wherein the central nervous system disorder is a cerebrovascular disease.

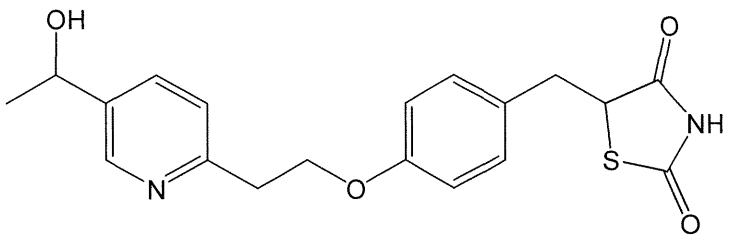
13. A compound or mixture of compounds for use according to anyone of claims 1 and 4 to 12 wherein the patient is also administered another therapeutic agent.

14. A compound or mixture of compounds for use according to claim 13 wherein the compound or mixture of compounds and said other therapeutic agent are provided in combination.

15. A pharmaceutical composition comprising a compound as defined in anyone of claims 1 to 3 or a mixture as defined in anyone of claims 5 to 6.

16. A pharmaceutical composition according to claim 15 for use in the treatment or prevention of central nervous system disorders.

17. Use of a compound of formula (**1**) or a pharmaceutically acceptable salt thereof for the manufacture of a medicament for the treatment or prevention of central nervous system disorders



(**1**).

18. Use of a compound of formula (**1**) according to claim 17, which is selected from compounds (**2**) to (**5**):
    (**2**) (R)-5-(4-(2-(5-((R)-1-hydroxyethyl)pyridine-2-yl)ethoxy)benzyl)thiazolidine-2,4-dione;
    (**3**) (R)-5-(4-(2-(5-((S)-1-hydroxyethyl)pyridine-2-yl)ethoxy)benzyl)thiazolidine-2,4-dione;
    (**4**) (S)-5-(4-(2-(5-((R)-1-hydroxyethyl)pyridine-2-yl)ethoxy)benzyl)thiazolidine-2,4-dione; and
    (**5**) (S)-5-(4-(2-(5-((S)-1-hydroxyethyl)pyridine-2-yl)ethoxy)benzyl)thiazolidine-2,4-dione; or a pharmaceutically acceptable salt thereof.

19. Use of a mixture of one or more of the compounds defined in claim 18 for the manufacture of a medicament for the treatment or prevention of central nervous system disorders.
20. Use of a mixture according to claim 19, which is selected from the group consisting of:
    (a) Mixtures comprising compounds (**2**) and (**3**);
    (b) Mixtures comprising compounds (**4**) and (**5**);
    (c) Mixtures comprising compounds (**2**) and (**4**); and
    (d) Mixtures comprising compounds (**3**) and (**5**).

21. Use of a compound or mixture of compounds according to any one of claims 17 to 20 wherein the disorder is selected from neurodegenerative diseases, cerebrovascular diseases, seizures, epilepsy, viral diseases, neuroinflammatory diseases, brain tumours, organic acidemias, fatty acid disorders and genetic mitochondrial disorders.

22. Use of a compound or mixture of compounds according to claim 21 wherein the disorder is a neurodegenerative disease.

23. Use of a compound according to claim 22 wherein the neurodegenerative disease is Alzheimer's disease, Huntington's chorea, Parkinson's disease, amyotrophic lateral sclerosis (ALS), degenerative ataxias, multiple sclerosis, multiple system atrophy, leukodystrophy, spinal muscular atrophy (SMA), primary lateral sclerosis (PLS), progressive bulbar palsy, or pseudobulbar palsy.

24. Use of a compound or mixture of compounds according to claim 21 or 22, wherein the leukodystrophy is adrenoleukodystrophy (ALD).

25. Use of a compound or mixture of compounds according to claim 21 wherein the central nervous system disorder is a cerebrovascular disease.

26. Use of a compound or mixture of compounds for use according to anyone of claims 17 to 25 wherein the patient is also administered another therapeutic agent.

27. Use of a compound or mixture of compounds for use according to claim 26 wherein the compound or mixture of compounds and said other therapeutic agent are provided in combination.

28. Use of the compound or mixture of compounds according to any one of claims 17 to 27, wherein the compound or mixture of compounds is provided in a dosage form.

29. Use of the compound or mixture of compounds according to claim 28, wherein the dosage form is an oral dosage form.

30. Use of the compound or mixture of compounds according to claim 29, wherein the oral dosage form is an oral solution or an oral suspension.

31. Use of the compound or mixture of compounds according to claim 28 or 29, wherein the oral dosage form is selected from the group consisting of tablets, capsules, pills, and granules.

32. Use of the compound or mixture of compounds according to any one of claims 28 to 31, wherein the compound or mixture of compounds in the dosage form is at a dosage of from 0.1 mg to 200 mg.

33. Use of the compound or mixture of compounds according to claim 32, wherein the dosage is from 10 mg to 100 mg.

34. Use of the compound or mixture of compounds according to claim 28, wherein the dosage form is suitable for topical, epicutaneous, subcutaneous, transdermal, intramuscular, parenteral, ocular, rectal, vaginal, inhalation, buccal, sublingual, or intranasal delivery,

35. Use of the compound or mixture of compounds according to claim 34, wherein the dosage form is sublingual.