SUMMARY OF THE INVENTION

There remains a need for new treatments and therapies for Alzheimer's disease, and Alzheimer's disease-related disorders, such as dementia.

Thus, embodiments provided herein are methods of treating Alzheimer's disease as adjunctive therapy to acetylcholinesterase treatment comprising administering an effective daily dose of N-(2-(6-fluoro-lH-indol-3-yl)ethyl)-3-(2,2,3,3-tetrafluoropropoxy)benzylamine or a pharmaceutically acceptable salt to a patient in need of such treatment , wherein the effective daily dose administered to the patient is between about 30 and about 60 mg.

The embodiments further provides methods of treating Alzheimer's disease as adjunctive therapy to acetylcholinesterase treatment comprising administering an effective daily dose of N-(2-(6-fluoro-lH-indol-3-yl)ethyl)-3-(2,2,3,3-tetrafluoropropoxy)benzylamine or a pharmaceutically acceptable salt to a patient in need of such treatment , wherein the effective daily dose administered to the patient is between about 30 and about 60 mg.

Further provided is the use of a compound N-(2-(6-fluoro-lH-indol-3-yl)ethyl)-3-(2,2,3,3-tetrafluoropropoxy)benzylamine or a pharmaceutically acceptable salt in the manufacture of a medicament for treating Alzheimer's disease by improving or augmenting the effect of an co-administered acetylcholinesterase inhibitor, wherein an effective daily dose of said compound is to be administered to a patient in need of such treatment, and wherein the effective daily dose to be administered to the patient is between about 30 and about 60 mg, and the daily dose is administered once daily.

The invention also provides the use of N-(2-(6-fluoro-lH-indol-3-yl)ethyl)-3-(2,2,3,3-tetrafluoropropoxy)benzylamine or a pharmaceutically acceptable salt co-administered with an acetylcholinesterase inhibitor in the preparation of a medicament for treating Alzheimer's disease, the medicament being for use as adjunctive therapy to acetylcholinesterase inhibitor treatment, wherein an effective daily dose of N-(2-(6-fluoro-lH-indol-3-yl)ethyl)-3-(2,2,3,3-tetrafluoropropoxy)benzylamine or a pharmaceutically acceptable salt is to be administered to a patient in need of such treatment, and wherein the effective daily dose administered to the patient is between about 30 and about 60 mg.

One embodiment of the disclosure is directed to a method of treating mild to moderate Alzheimer's disease. In one embodiment, the pharmaceutically acceptable salt is the hydrochloride.

In another embodiment, the dose is administered as an immediate release formulation.

Yet another embodiment, the method is for treating mild to moderate Alzheimer's disease.

In another embodiment, the acetylcholineesterase inhibitor is donepezil.

In another embodiment, the acetylcholineesterase inhibitor is rivastigmine.

In another embodiment, the acetylcholineesterase inhibitor is galantamine.

In another embodiment, the dose is administered once daily.

CLAIMS:

1. Use of a compound N-(2-(6-fluoro-lH-indol-3-yl)ethyl)-3-(2,2,3,3-tetrafluoropropoxy)benzylamine or a pharmaceutically acceptable salt in the preparation of a medicament for treating Alzheimer's disease by improving or augmenting the effect of an co-administered acetylcholinesterase inhibitor, wherein an effective daily dose of said compound is to be administered to a patient in need of such treatment, and wherein the effective daily dose to be administered to the patient is between about 30 and about 60 mg and the daily dose is administered once daily.

2. Use of a compound N-(2-(6-fluoro-lH-indol-3-yl)ethyl)-3-(2,2,3,3-tetrafluoropropoxy)benzylamine or a pharmaceutically acceptable salt co-administered with an acetylcholinesterase inhibitor in the manufacture of a medicament for treating Alzheimer's disease, said medicament being for use as adjunctive therapy to acetylcholinesterase inhibitor treatment ,wherein an effective daily dose of N-(2-(6-fluoro-lH-indol-3-yl)ethyl)-3-(2,2,3,3-tetrafluoropropoxy)benzylamine or a pharmaceutically acceptable salt is to be administered to a patient in need of such treatment, and wherein the effective daily dose to be administered to the patient is between about 30 and about 60 mg.

3. The use according to claim 1 or 2, wherein the pharmaceutically acceptable salt is the hydrochloride.

4. The use according to any one of claims 1-3, wherein the dose is administered as an immediate release formulation.

5. The use according to any one of claims 1-4 for treating mild to moderate Alzheimer's disease.

6. The useaccording to any one of claims 1-5, wherein the acetylcholineesterase inhibitor is donepezil.

7. The use according to any one of claims 1-5, wherein the acetylcholineesterase inhibitor is rivastigmine.

8. The use according to anyone of claims 1-5, wherein the acetylcholineesterase inhibitor is galatamine.

9. The use according to any one of claims 1-8, wherein the effective daily dose is 30 mg.

10. The use according to any one of claims 1-8, wherein the effective daily dose is 40 mg or less.

11. The use according to any one of claims 1-8, wherein the effective daily dose is 50 mg or less.

12. The use according to any one of claims 1-8, wherein the effective daily dose is 60 mg or less.

13. The use according to any one of claims 1-8, wherein the effective daily dose is 60 mg.

~~14. A pharmaceutical composition comprising Compound I wherein the composition when administered to a human provides a blood plasma concentration of Compound I in a range of about 56 ng/mL to about 310 ng/mL at steady-state plasma level and when the composition is administered to provide an effective daily dose of Compound I of about 60 mg or less; and wherein Compound I is N (2 (6 fluoro lH indol 3 yl)ethyl) 3 (2,2,3,3 tetrafluoropropoxy)benzylamine.~~

~~15. A pharmaceutical composition comprising Compound I wherein the composition provides when administered to a human a receptor occupancy of Compound I greater than or equal to about 90 % at the 5HT 6 receptor at a steady-state plasma level and when the composition is administered to provide an effective daily dose of Compound I of about 60 mg of less; and wherein Compound I is N (2 (6 fluoro lH indol 3 yl)ethyl) 3 (2,2,3,3 tetrafluoropropoxy)benzylamine.~~