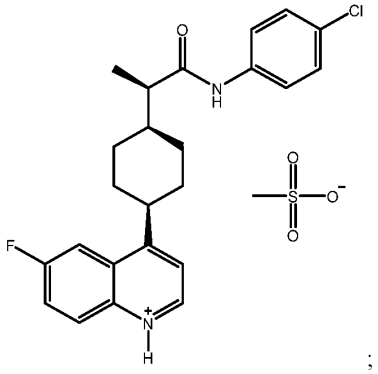
CLAIMS

WHAT IS CLAIMED IS:

1. A pharmaceutical composition suitable for oral administration comprising:

(i) a therapeutically effective amount of (*R*)-*N*-(4-chlorophenyl)-2-((1*S*, 4*S*)-4-(6-fluoroquinolin-4-yl) cyclohexyl) propanamide methane sulfonic acid salt present in an amount between 5% to 40% w/w of the composition having the structure:



;

(ii) crospovidone as a disintegrant present in an amount between 2.0% to 7.0% w/w of the composition; and,

(iii) magnesium stearate as a lubricant present in amount between 0.25% to 1.75% w/w of the composition;

wherein the ratio of (*R*)-*N*-(4-chlorophenyl)-2-((1*S*, 4*S*)-4-(6-fluoroquinolin-4-yl) cyclohexyl) propanamide methane sulfonic acid salt to total magnesium stearate is 8.0 to 40.0 by weight; and,

wherein salt disproportionation of (*R*)-*N*-(4-chlorophenyl)-2-((1*S*,4*S*)-4-(6-fluoroquinolin-4-yl)cyclohexyl)propanamide methane sulfonic acid to (*R*)-*N*-(4-chlorophenyl)-2-((1*S*,4*S*)-4-(6-fluoroquinolin-4-yl)cyclohexyl)propanamide is less than 25% by weight.

2. The pharmaceutical composition of claim 1 further comprising microcrystalline cellulose as a first diluent and lactose anhydrous as a second diluent present in a total amount between 50% to 80% w/w of the composition.

3. The pharmaceutical composition of claim 1 further comprising silicon dioxide as a glidant present in an amount of 1.0% to 3.0% w/w of the composition.

4. The pharmaceutical composition of claim 1, wherein salt disproportionation of (*R*)-*N*-(4-chlorophenyl)-2-((1*S*, 4*S*)-4-(6-fluoroquinolin-4-yl) cyclohexyl) propanamide methane

sulfonic acid to (*R*)-*N*-(4-chlorophenyl)-2-((1*S*, 4*S*)-4-(6-fluoroquinolin-4-yl) cyclohexyl) propanamide is less than 5% by weight.

5. The pharmaceutical composition of claim 1, wherein salt disproportionation of (*R*)-*N*-(4-chlorophenyl)-2-((1*S*, 4*S*)-4-(6-fluoroquinolin-4-yl) cyclohexyl) propanamide methane sulfonic acid to (*R*)-*N*-(4-chlorophenyl)-2-((1*S*, 4*S*)-4-(6-fluoroquinolin-4-yl) cyclohexyl) propanamide is less than 3% by weight.

6. The pharmaceutical composition of claim 1, wherein the ratio of (*R*)-*N*-(4-chlorophenyl)-2-((1*S*, 4*S*)-4-(6-fluoroquinolin-4-yl) cyclohexyl) propanamide methane sulfonic acid salt to total magnesium stearate is 23.0 to 40.0 by weight.

7. The pharmaceutical composition of claim 1, wherein the (*R*)-*N*-(4-chlorophenyl)-2-((1*S*, 4*S*)-4-(6-fluoroquinolin-4-yl) cyclohexyl) propanamide methane sulfonic acid salt present in an amount between 15% to 20% w/w of the composition.

8. The pharmaceutical composition of claim 2, wherein the first diluent and the second diluent is present in a ratio ranging from 2:1 to 1:2 by weight.

9. The pharmaceutical composition of claim 2, wherein the first diluent is present in amount ranging from 25% to 40% w/w of the composition.

10. The pharmaceutical composition of claim 2, wherein the second diluent is present in amount ranging from 25% to 40% w/w of the composition.

11. The pharmaceutical composition of claim 3, wherein the silicon dioxide is present in an amount of 2.0% w/w of the composition.

12. The pharmaceutical composition of claim 1, wherein the composition comprises an intra-granular phase and an extra-granular phase.

13. The pharmaceutical composition of claim 12, wherein the composition comprises:

(a) an intra-granular phase comprising:

(i) (*R*)-*N*-(4-chlorophenyl)-2-((1*S*, 4*S*)-4-(6-fluoroquinolin-4-yl) cyclohexyl) propanamide methane sulfonic acid salt present in an amount between 12% to 18% w/w of the composition;

(ii) crospovidone as a disintegrant present in an amount of 2% to 3% w/w of the composition;

(iii) magnesium stearate as a lubricant present in an amount of 0.25% to 0.75% w/w of the composition;

(b) an extra-granular phase comprising:

(i) crospovidone as a disintegrant present in an amount of 2% to 3% w/w of the composition; and,

(ii) magnesium stearate as a lubricant present in an amount of 0.50% to 1.00% w/w of the composition.

14. The pharmaceutical composition of claim 13, wherein the intra-granular phase further comprises microcrystalline cellulose as a first diluent and lactose anhydrous as a second diluent present in a total amount between 75% to 80% w/w of the composition; and, silicon dioxide as a glidant present in an amount of 1.5% to 2.5% w/w of the composition.

15. The pharmaceutical composition of claim 1, wherein salt disproportionation of (*R*)-*N*-(4-chlorophenyl)-2-((1*S*,4*S*)-4-(6-fluoroquinolin-4-yl)cyclohexyl)propanamide methane sulfonic acid to (*R*)-*N*-(4-chlorophenyl)-2-((1*S*,4*S*)-4-(6-fluoroquinolin-4-yl)cyclohexyl)propanamide is less than 10% by weight after 12 weeks at 40 °C and 75% relative humidity and has a particle size distribution characterized by a D90 has a value from about 7 microns to about 165 microns.

16. The pharmaceutical composition of claim 1, wherein salt disproportionation of (*R*)-*N*-(4-chlorophenyl)-2-((1*S*,4*S*)-4-(6-fluoroquinolin-4-yl)cyclohexyl)propanamide methane sulfonic acid to (*R*)-*N*-(4-chlorophenyl)-2-((1*S*,4*S*)-4-(6-fluoroquinolin-4-yl)cyclohexyl)propanamide is less than 3% by weight after 24 weeks stored in a 200 cc high-density polyethylene bottle at 25 °C and 60% relative humidity.

17. The pharmaceutical composition of claim 1, wherein the particle size distribution characterized by a D90 has a value from about 10 microns to about 165 microns.

18. The pharmaceutical composition of claim 1, wherein salt disproportionation of (*R*)-*N*-(4-chlorophenyl)-2-((1*S*,4*S*)-4-(6-fluoroquinolin-4-yl)cyclohexyl)propanamide methane sulfonic acid to (*R*)-*N*-(4-chlorophenyl)-2-((1*S*,4*S*)-4-(6-fluoroquinolin-4-yl)cyclohexyl)propanamide is less than 3% by weight after 6 months at 25 °C and 60% relative humidity with blister packaging.

19. The pharmaceutical composition of claim 1, wherein salt disproportionation of (*R*)-*N*-(4-chlorophenyl)-2-((1*S*,4*S*)-4-(6-fluoroquinolin-4-yl)cyclohexyl)propanamide methane sulfonic

acid to (*R*)-*N*-(4-chlorophenyl)-2-((1*S*,4*S*)-4-(6-fluoroquinolin-4-yl)cyclohexyl)propanamide is less than 3% by weight after 4 weeks at 25 °C and 60% relative humidity.

20. The pharmaceutical composition of claim 1, wherein salt disproportionation of (*R*)-*N*-(4-chlorophenyl)-2-((1*S*,4*S*)-4-(6-fluoroquinolin-4-yl)cyclohexyl)propanamide methane sulfonic acid to (*R*)-*N*-(4-chlorophenyl)-2-((1*S*,4*S*)-4-(6-fluoroquinolin-4-yl)cyclohexyl)propanamide is less than 3% by weight after 4 weeks at 40 °C and 75% relative humidity.

21. The pharmaceutical composition of claim 1, wherein the composition is a blend and the salt disproportionation of (*R*)-*N*-(4-chlorophenyl)-2-((1*S*,4*S*)-4-(6-fluoroquinolin-4-yl)cyclohexyl)propanamide methane sulfonic acid to (*R*)-*N*-(4-chlorophenyl)-2-((1*S*,4*S*)-4-(6-fluoroquinolin-4-yl)cyclohexyl)propanamide is less than 3% by weight after 24 weeks at 25 °C and 60% closed relative humidity.

22. The pharmaceutical composition of claim 1, wherein the composition is selected from the group consisting of tablet, crushed tablet, capsule or sprinkled contents from a capsule, mini-tablets, and beads.

23. The pharmaceutical composition of claim 1 further comprising citric acid.