WHAT IS CLAIMED IS:

1. A composition, comprising:

a first agent selected from the group consisting of inhibitors of oxidative phosphorylation; ionophores; and activators of adenosine 5'-monophosphate activated protein kinase (AMPK);

a second agent that possesses anti-inflammatory activity; and

a third agent that possesses or maintains serotonin activity, the third agent being selected from the group consisting of:

(1) a serotonin transport inhibitor;
(2) a serotonin receptor 2C modulator;
(3) a serotonin reuptake inhibitor;
(4) a serotonin and noradrenaline reuptake inhibitor;
(5) a serotonin receptor 1A antagonist;
(6) a serotonin dopamine antagonist;
(7) a monoamine reuptake inhibitor;
(8) a pyridazinone aldose reductase inhibitor;
(9) a serotonergic agent;
(10) a stimulant of a serotonin receptor; and
(11) a serotonin agonist.

2. The composition of claim 1, wherein the first agent is metformin, phenformin, buformin, ephedrine, thyroxine, salicylanilide, or salicylic acid.

3. The composition of claim 1, wherein the first agent is metformin hydrochloride or phenformin.

4. The composition of claim 3, wherein the first agent is metformin hydrochloride.

5. The composition of claim 1, wherein the second agent is a non-steroidal anti-inflammatory compound.

6. The composition of claim 1, wherein the second agent is aspirin, diclofenac, ibuprofen, indomethacin, acetaminophen, nimesulide, or a COX-2 inhibitor.

7. The composition of claim 6, wherein the second agent is aspirin or celecoxib.

8. The composition of claim 1, wherein the third agent is serotonin or a serotonin re-uptake inhibitor.

9. The composition of claim 8, wherein the third agent is serotonin sulfate, a serotonin creatinine sulfate complex, or serotonin hydrochloride.

10. The composition of claim 1, wherein the composition contains 5-5,000 mg of the first agent, 1-5,000 mg of the second agent, and 0.1-1000 mg of the third agent; or in quantities of the same ratio.

11. The composition of claim 10, wherein the composition contains 5-1,500 mg of the first agent, 1-1,000 mg of the second agent, and 0.1-100 mg of the third agent; or in quantities of the same ratio.

12. The composition of claim 11, wherein the composition contains 5-1,000 mg of the first agent, 1-500 mg of the second agent, and 0.1-50 mg of the third agent; or in quantities of the same ratio.

13. The composition of claim 1, wherein the composition contains metformin hydrochloride, aspirin, and a serotonin creatinine sulfate complex.

14. The composition of claim 13, wherein the composition contains 5-5,000 mg of metformin hydrochloride, 1-5,000 mg of aspirin, and 0.1-1,000 mg of the serotonin creatinine sulfate complex; or in quantities of the same ratio.

15. The composition of claim 14, wherein the composition contains 5-1,500 mg of metformin hydrochloride, 1-1,000 mg of aspirin, and 0.1-100 mg of the serotonin creatinine sulfate complex; or in quantities of the same ratio.

16. The composition of claim 15 wherein the composition contains 5-1,000 mg of metformin hydrochloride, 1-500 mg of aspirin, and 0.1-50 mg of the composition contains the first, second, and third agents in quantities of the same ratio.

17. The composition of claim 1, wherein the composition further comprises a pharmaceutically acceptable carrier.

18. The composition of claim 1, wherein the composition consists essentially of the first, second, and third agents.

19. The composition of claim 1, wherein the first agent is an AMPK activator.

20. The composition of claim 19, wherein the composition consists essentially of the first, second, and third agents.

21. The composition of claim 19, wherein the AMPK activator is selected from the group consisting of metformin, phenformin, buformin, AICAR, thienopyridones, resveratrol, nootkatone, thiazole, and adiponectin.

22. The composition of claim 1, wherein the first agent is an oxidative phosphorylation inhibitor or ionophore.

23. The composition of claim 19, wherein the second agent is a non-steroidal anti-inflammatory compound.

24. The composition of claim 23, wherein the second agent is aspirin or a COX-2 inhibitor.

25. The composition of claim 19, wherein the third agent is serotonin sulfate, a serotonin creatinine sulfate complex, or serotonin hydrochloride.

26. The composition of claim 19, wherein the composition contains metformin hydrochloride, aspirin, and a serotonin creatinine sulfate complex.

27. Use of the composition of claim 1 for the preparation of a medicament for treating metabolic syndrome.

28. The use of claim 27, wherein the composition consists essentially of the first, second, and third agents.

29. The use of claim 27, wherein the first agent is an AMPK activator.

30. The use of claim 27, wherein the first agent is an oxidative phosphorylation inhibitor or ionophore.

31. Use of the composition of claim 1 for the preparation of a medicament for treating obesity.

32. The use of claim 31, wherein the composition consists essentially of the first, second, and third agents.

33. The use of claim 31, wherein the first agent is an AMPK activator.

34. The use of claim 31, wherein the first agent is an oxidative phosphorylation inhibitor or ionophore.

35. Use of the composition of claim 1 for the preparation of a medicament for treating hypertension.

36. The use of claim 35, wherein the composition consists essentially of the first, second, and third agents.

37. The use of claim 35, wherein the first agent is an AMPK activator.

38. The use of claim 35, wherein the first agent is an oxidative phosphorylation inhibitor or ionophore.

39. Use of the composition of claim 1 for the preparation of a medicament for treating diabetes.

40. The use of claim 39, wherein the composition consists essentially of the first, second, and third agents.

41. The use of claim 39, wherein the first agent is an AMPK activator.

42. The use of claim 39, wherein the first agent is an oxidative phosphorylation inhibitor or ionophore.

43. Use of the composition of claim 1 for the preparation of a medicament for treating Parkinson's disease.

44. The use of claim 43, wherein the composition consists essentially of the first, second, and third agents.

45. The use of claim 43, wherein the first agent is an AMPK activator.

46. The use of claim 43, wherein the first agent is an oxidative phosphorylation inhibitor or ionophore.

47 Use of the composition of claim 1 for the preparation of a medicament for treating polycystic ovarian syndrome.

48. The use of claim 47, wherein the composition consists essentially of the first, second, and third agents.

49. The use of claim 47, wherein the first agent is an AMPK activator.

50. The use of claim 47, wherein the first agent is an oxidative phosphorylation inhibitor or ionophore.

What is claimed is:

1. A composition, consisting essentially of:

a first agent which is metformin or a salt thereof;

a second agent which is aspirin or a salt thereof; and

a third agent which is serotonin or a salt thereof.

2. The composition of claim 1, wherein the first agent is metformin or metformin hydrochloride.

3. The composition of claim 1, wherein the second agent is aspirin.

4. The composition of claim 1, wherein the third agent is serotonin sulfate, a serotonin creatinine sulfate complex, or serotonin hydrochloride.

5. The composition of claim 1, wherein a daily dose of the composition contains 5-5,000 mg of the first agent, 1-5,000 mg of the second agent, and 0.1-1000 mg of the third agent.

6. The composition of claim 5, wherein the daily dose of the composition contains 5-1,500 mg of the first agent, 1-1,000 mg of the second agent, and 0.1-100 mg of the third agent.

7. The composition of claim 6, wherein the daily dose of the composition contains 5-1,000 mg of the first agent, 1-500 mg of the second agent, and 0.1-50 mg of the third agent.

8. The composition of claim 1, wherein the composition consists essentially of metformin hydrochloride, aspirin, and a serotonin creatinine sulfate complex.

9. The composition of claim 8, wherein a daily dose of the composition contains 5-5,000 mg of metformin hydrochloride, 1-5,000 mg of aspirin, and 0.1-1,000 mg of the serotonin creatinine sulfate complex.

10. The composition of claim 9, wherein the daily dose of the composition contains 5-1,500 mg of metformin hydrochloride, 1-1,000 mg of aspirin, and 0.1-100 mg of the serotonin creatinine sulfate complex.

11. The composition of claim 10, wherein the daily dose of the composition contains 5-1,000 mg of metformin hydrochloride, 1-500 mg of aspirin, and 0.1-50 mg of the serotonin creatinine sulfate complex.

12. The composition of claim 1, wherein the composition further comprises a pharmaceutically acceptable carrier.